























### **IMPORTANT**

If you are in any doubt about any of the contents of this prospectus, you should obtain independent professional advice.



### CHINA ISOTOPE & RADIATION CORPORATION

中國同輻股份有限公司

(A joint stock company incorporated in the People's Republic of China with limited liability)

#### **GLOBAL OFFERING**

Number of Offer Shares under the : 79,968,700 H Shares (subject to the Over-allotment

Global Offering Option)

Number of Hong Kong Offer Shares: 7,997,200 H Shares (subject to adjustment)

**Number of International Offer Shares:** 71,971,500 H Shares (subject to adjustment and the

**Over-allotment Option**)

Maximum Offer Price: HK\$24.20 per H Share, plus brokerage of 1.0%, SFC

transaction levy of 0.0027% and Stock Exchange trading fee of 0.005% (payable in full on application in

Hong Kong dollars and subject to refund)

Nominal value: RMB1.00 per H Share

Stock code 1763

Sole Sponsor



Joint Global Coordinators

















A CITIC Securities Company





Hong Kong Exchanges and Clearing Limited, The Stock Exchange of Hong Kong Limited and Hong Kong Securities Clearing Company Limited take no responsibility for the contents of this prospectus, make no representation as to its accuracy or completeness and expressly disclaim any liability whatsoever for any loss howsoever arising from or in reliance upon the whole or any part of the contents of this prospectus.

A copy of this prospectus, having attached thereto the documents specified in the paragraph headed "Documents Delivered to the Registrar of Companies and Available for Inspection" in Appendix VII to this prospectus, has been registered by the Registrar of Companies in Hong Kong as required by Section 342C of the Companies (Winding up and Miscellaneous Provisions) Ordinance, Chapter 32 of the Laws of Hong Kong. The Securities and Futures Commission of Hong Kong and the Registrar of Companies in Hong Kong take no responsibility as to the contents of this prospectus or any other documents referred to above.

The Offer Price is expected to be fixed by agreement between the Joint Global Coordinators (on behalf of the Underwriters) and us on the Price Determination Date. The Price Determination Date is expected to be not around Thursday, June 28, 2018 (Hong Kong time) and, in any event, not later than Wednesday, July 4, 2018 (Hong Kong time). The Offer Price will be not more than HK\$24.20 and is currently expected to be not less than HK\$17.80 per Offer Share. If, for any reason, the Offer Price is not agreed by Wednesday, July 4, 2018 (Hong Kong time) between the Joint Global Coordinators (on behalf of the Underwriters) and us, the Global Offering will not proceed and will lapse.

Applicants for Hong Kong Offer Share are required to pay, on application, the maximum Offer Price of HK\$24.20 for each Hong Kong Offer Share together with a brokerage fee of 1.0%, a SFC transaction levy of 0.0027% and a Hong Kong Stock Exchange trading fee of 0.005%, subject to refund if the Offer Price as finally determined is less than HK\$24.20.

The Sole Representative, on behalf of the Underwriters, and with our consent may, where considered appropriate, reduce the number of Hong Kong Offer Shares and/or the indicative Offer Price range below that is stated in this prospectus (which is HK\$17.80 to HK\$24.20) at any time prior to the morning of the last day for lodging applications under the Hong Kong Public Offering. In such a case, notices of the reduction in the number of Hong Kong Offer Shares and/or the indicative Offer Price range will be published in the South China Morning Post (in English) and the Hong Kong Economic Times (in Chinese) as soon as practicable following the decision to make such reduction, and in any event not later than the morning of the day which is the last day for lodging applications under the Hong Kong Public Offering. Such notices will also be available on the website of our Company at www.china-isotope.com and on the website of the Hong Kong Stock Exchange at www.hkexnews.hk. Further details are set forth in sections headed "Structure of the Global Offering" and "How to Apply for the Hong Kong Offer Shares" in this prospectus.

We are incorporated, and substantially all of our businesses are located, in the PRC. Potential investors should be aware of the differences in the legal, economic and financial systems between the PRC and Hong Kong and that there are different risk factors relating to investment in PRC-incorporated businesses. Potential investors should also be aware that the regulatory framework in the PRC is different from the regulatory framework in Hong Kong and should take into consideration the different market nature of the H Shares. Such differences and risk factors are set out in the sections headed "Risk Factors," "Appendix IV Summary of Principal Legal and Regulatory Provisions" and "Appendix V — Summary of Articles of Association" to this prospectus.

The obligations of the Hong Kong Underwriters under the Hong Kong Underwriting Agreement are subject to termination by the Sole Representative (on behalf of the Joint Bookrunners and the Hong Kong Underwriters) if certain grounds arise prior to 8:00 a.m. on the Listing Date. See Underwriting Arrangements and Expenses — Hong Kong Public Offering — Grounds for Termination" of this prospectus.

The Offer Shares have not been and will not be registered under the US Securities Act or any state securities law in the United States and may not be offered, sold, pledged or transferred within the United States, except that Offer Shares may be offered, sold or delivered outside the United States in an offshore transaction in accordance with Regulation S under the US Securities Act.

## EXPECTED TIMETABLE(1)

Latest time to complete <b>electronic application instructions</b> under <b>White Form eIPO</b> service through the designated website at <b>www.eipo.com.hk</b> <sup>(1)</sup>	11:30 am on Wednesday, June 27, 2018
Application lists open <sup>(2)</sup>	11:45 am on Wednesday, June 27, 2018
Latest time to lodge WHITE and YELLOW Application Forms <sup>(3)</sup> and electronic application instructions to HKSCC	12:00 noon on Wednesday, June 27, 2018
Latest time to complete payment of <b>White Form eIPO</b> service applications by effecting internet banking transfer(s) or PPS payment transfer(s)	12:00 noon on Wednesday, June 27, 2018
Application lists close <sup>(3)</sup>	12:00 noon on Wednesday, June 27, 2018
Expected Price Determination Date <sup>(4)</sup>	on or about Thursday, June 28, 2018
(1) Announcement of the Offer Price, the level of indications of interest in the International Offering, the level of applications in the Hong Kong Public Offering and the basis of allotment of the Hong Kong Offer Shares, to be published in the South China Morning Post (in English) and the Hong Kong Economic Times (in Chinese) on or	
before	Thursday, July 5, 2018
(2) Results of allocations (with successful applicants' identification document numbers where appropriate) in the Hong Kong Public Offering to be available through a variety of channels (see the section headed "How to Apply for the Hong Kong Offer Shares — 11. Publication of	
Results" in this prospectus) from	Thursday, July 5, 2018
(3) Announcement containing (1) and (2) above to be published on the websites of the Stock Exchange at www.hkexnews.hk <sup>(6)</sup> and the Company at	
www.china-isotope.com <sup>(7)</sup> from	Thursday, July 5, 2018
Results of allocations in the Public Offer will be available at <a href="https://www.eipo.com.hk/en/Allotment">www.iporesults.com.hk</a> (alternatively: English <a href="https://www.eipo.com.hk/en/Allotment">https://www.eipo.com.hk/en/Allotment</a> ; Chinese <a href="https://www.eipo.com.hk/zh-hk/Allotment">https://www.eipo.com.hk/zh-hk/Allotment</a> )	
with a "search by ID" function from	Thursday, July 5, 2018
Dispatch of White Form e-Refund payment instructions/ refund check(s) in respect of wholly or partially unsuccessful applications on or before <sup>(8&amp;9)</sup>	Thursday, July 5, 2018
Dispatch of the H Share certificates or deposited into CCASS in respect of wholly or partially successful applications on or before <sup>(8)</sup>	Thursday, July 5, 2018
Dealings in the H Shares on the Stock Exchange expected to commence at	9:00 am on Friday, July 6, 2018

#### Notes.

<sup>(1)</sup> All dates and times refer to Hong Kong dates and times, except as otherwise stated. Details of the structure of the Global Offering, including its conditions, are set out in the section headed "Structure of the Global Offering" in this prospectus.

<sup>(2)</sup> You will not be permitted to submit your application through the designated website at <a href="www.eipo.com.hk">www.eipo.com.hk</a> after 11:30 am on the last day for submitting applications. If you have already submitted your application and obtained a payment reference number from the designated website prior to 11:30 am, you will be permitted to continue the application process (by completing payment of application monies) until 12:00 noon on the last day for submitting applications, when the application lists close.

<sup>(3)</sup> If there is a "black" rainstorm warning or a tropical cyclone warning signal number 8 or above in force at any time between 9:00 a.m. and 12:00 noon on Wednesday, June 27, 2018, the application lists will not open and close on that day. Further information is set out in the section headed "How to Apply for the Hong Kong Offer Shares — 10. Effect of Bad Weather on the Opening of the Application Lists" in this prospectus.

### **EXPECTED TIMETABLE**(1)

- (4) If you apply by giving electronic application instructions to HKSCC, you should refer to the section headed "How to Apply for the Hong Kong Offer Shares 6. Applying by Giving Electronic Application Instructions to HKSCC via CCASS" in this prospectus.
- (5) The Price Determination Date is expected to be on or about Thursday, June 28, 2018 and, in any event, not later than Wednesday, July 4, 2018. If, for any reason, the Offer Price is not agreed among the Company, the Joint Global Coordinators (for themselves and on behalf of the Underwriters) on or before Wednesday, July 4, 2018, the Global Offering will not proceed and will lapse.
- (6) The announcement will be available for viewing on the Stock Exchange's website at www.hkexnews.com.hk.
- (7) None of the website or any of the information contained on the website forms part of this prospectus.
- (8) Applicants who apply for 1,000,000 Hong Kong Offer Shares or more under the Hong Kong Public Offering on WHITE Application Forms and have provided all required information may collect refund check(s) and/or share certificate(s) in person from the Company's H Share Registrar, Computershare Hong Kong Investor Services Limited, at Shops 1712-1716, 17th Floor, Hopewell Centre, 183 Queen's Road East, Wanchai, Hong Kong, from 9:00 a.m. to 1:00 p.m. on Thursday, July 5, 2018. Applicants being individuals who are eligible for personal collection must not authorize any other person to make collection on their behalf. Applicants being corporations who are applying for 1,000,000 Hong Kong Offer Shares or more and eligible for personal collection must attend by their authorized representatives bearing letters of authorization from their corporations stamped with the corporation's chop. Identification and (where applicable) authorization documents acceptable to the Company's H Share Registrar must be produced at the time of collection. Applicants who apply for 1,000,000 Hong Kong Offer Shares or more under the Hong Kong Public Offering on YELLOW Application Forms and have provided all required information may collect their refund check(s) (if any) in person but may not elect to collect their share certificate(s), which will be deposited into CCASS for the credit of their designated CCASS Participants' stock accounts or CCASS Investor Participant stock accounts, as appropriate. The procedures for collection of refund checks for YELLOW Application Form applicants are the same as those for WHITE Application Form applicants. Uncollected share certificates and refund checks will be dispatched by ordinary post at the applicants' own risk to the addresses specified on the relevant Application Forms. Further details are set out in the section headed "How to Apply for the Hong Kong Offer Shares — 14. Dispatch/Collection of H Share Certificates and Refund Monies" in this prospectus.
- (9) e-Refund payment instructions/refund check(s) will be issued in respect of wholly or partially unsuccessful applications pursuant to the Hong Kong Public Offering and also in respect of wholly or partially successful applications in the event that the final Offer Price is less than the price payable per Offer Share on application.

H Share certificates for the Hong Kong Offer Shares are expected to be issued on Thursday, July 5, 2018 but will only become valid if the Global Offering has become unconditional in all respects at any time prior to 8:00 a.m. and the right of termination as described in the section headed "Underwriting" in this prospectus has not been exercised on the Listing Date, which is expected to be Friday, July 6, 2018. Investors who trade the H Shares on the basis of publicly available allocation details or prior to the receipt of the Share certificates or prior to the H Share certificates becoming valid do so entirely at their own risk.

For details of the structure of the Global Offering, including its conditions, and the procedures for applications for Hong Kong Offer Shares, please see the sections headed "Structure of the Global Offering" and "How to Apply for the Hong Kong Offer Shares" in this prospectus, respectively.

### **CONTENTS**

This prospectus is issued by our Company solely in connection with the Hong Kong Public Offering and the Hong Kong Offer Shares and does not constitute an offer to sell or a solicitation of an offer to subscribe for or buy any security other than the Hong Kong Offer Shares. This prospectus may not be used for the purpose of, and does not constitute, an offer to sell or a solicitation of an offer to subscribe for or buy any security in any other jurisdiction or in any other circumstances. No action has been taken to permit a public offering of the Offer Shares or the distribution of this prospectus in any jurisdiction other than Hong Kong. The distribution of this prospectus and the offering and sale of the Offer Shares in other jurisdictions are subject to restrictions and may not be made except as permitted under the applicable securities laws of such jurisdictions pursuant to registration with or authorization by the relevant securities regulatory authorities or an exemption therefrom.

You should rely only on the information contained in this prospectus and the Application Forms to make your investment decision. We have not authorized anyone to provide you with information that is different from what is contained in this prospectus. Any information or representation not included in this prospectus must not be relied on by you as having been authorized by us, the Sole Sponsor, the Joint Global Coordinators, the Joint Bookrunners, the Joint Lead Managers, the Underwriters, any of our or their respective directors or Directors or advisors, or any other person or party involved in the Global Offering. Information contained on our website, located at www.china-isotope.com, does not form part of this prospectus.

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This summary aims to give you an overview of the information contained in this prospectus. As this is a summary, it does not contain all the information that may be important to you and is qualified in its entirety by, and should be read in conjunction with, the full text of this Prospectus. You should read the whole prospectus before you decide to invest in the Offer Shares.

There are risks associated with any investment. Some of the particular risks in investing in the Offer Shares are set out in "Risk Factors", beginning on page 32 of this prospectus. You should read that section carefully before you decide to invest in the Offer Shares.

### **OVERVIEW**

We are the leading enterprise in the field of isotopes and irradiation technology applications in China. We are primarily engaged in the research, development, manufacturing and sale of diagnostic and therapeutic radiopharmaceuticals and radioactive source products for medical and industrial applications. We also provide irradiation service for sterilization purpose and EPC service for the design, manufacturing and installation of gamma ray irradiation facilities. In addition, we provide independent clinical laboratory services to hospitals and other medical institutions. According to Frost & Sullivan, in 2017, we were the largest manufacturer of imaging diagnostic and therapeutic radiopharmaceuticals, UBT kits and analyzers and radioactive source products, respectively, in terms of revenue in China. We have experienced stable business growth in recent years. In particular, our revenue increased from RMB2,152.1 million in 2015 to RMB2,363.1 million in 2016, and further to RMB2,672.0 million in 2017. In 2015, 2016 and 2017, our net profit was RMB410.4 million, RMB434.5 million and RMB475.6 million, respectively. We have the following four business segments:

**Pharmaceuticals.** In the pharmaceuticals segment, we are primarily engaged in the research, development, manufacturing and sale of a broad range of (i) imaging diagnostic and therapeutic radiopharmaceuticals, (ii) UBT kits and analyzers, and (iii) in vitro immunoassay diagnostic reagents and kits in China. We mainly sell these pharmaceuticals directly to hospitals and other medical institutions in China for the purposes of diagnosis, treatment and efficacy assessment of various diseases. Revenue generated from the pharmaceuticals segment was RMB1,773.6 million, RMB1,971.1 million and RMB2,253.8 million in 2015, 2016 and 2017, representing 82.4%, 83.4% and 84.3%, respectively, of our total revenue in the same periods. Gross profit of the pharmaceuticals segment was RMB1,316.9 million, RMB1,491.2 million and RMB1,708.2 million in 2015, 2016 and 2017, respectively. Gross margin of the pharmaceuticals segment was 74.3%, 75.7% and 75.8% in 2015, 2016 and 2017, respectively.

Radioactive source products. For the radioactive source products segment, we are primarily engaged in the research, development, manufacturing and sale of a variety of radioactive sources products for use in medical and industrial fields as well as provision of the relevant technical services. We primarily supply radioactive source products and technical services to radiotherapy equipment manufacturers, irradiation service providers, non-destructive testing equipment manufacturers and service providers and oil field operators in China for use in radiotherapy, irradiation service, non-destructive testing and oil field tracer technical services, respectively. Revenue generated from the radioactive source products segment was RMB275.2 million, RMB287.7 million and RMB292.2 million in 2015, 2016 and 2017, representing 12.8%, 12.2% and 10.9%, respectively, of our total revenue in the same periods. Gross profit of the radioactive source products segment was RMB129.4 million, RMB137.8 million and RMB135.4 million in 2015, 2016 and 2017, respectively.

Gross margin of the radioactive source products segment was 47.0%, 47.9% and 46.3% in 2015, 2016 and 2017, respectively.

*Irradiation*. With respect to our irradiation segment, we are primarily engaged in (i) providing an irradiation service to manufacturers of medical devices, food, traditional Chinese medicine and cosmetics in China for sterilization purpose, and (ii) providing EPC service for the design, manufacturing and installation of irradiation facilities to irradiation service providers by leveraging our leading irradiator design capability in China. Revenue generated from the irradiation segment was RMB47.9 million, RMB51.1 million and RMB65.9 million in 2015, 2016 and 2017, representing 2.2%, 2.2% and 2.5%, respectively, of our total revenue in the same periods. Gross profit of the irradiation segment was RMB18.0 million, RMB19.1 million and RMB21.1 million in 2015, 2016 and 2017, respectively. Gross margin of the irradiation segment was 37.6%, 37.4% and 31.9% in 2015, 2016 and 2017 respectively.

Independent clinical laboratory services and other businesses. As a downstream extension of our in vitro immunoassay diagnostic reagents and kits business, we provide independent clinical laboratory services to hospitals and other medical institutions in China. We primarily offer independent clinical laboratory services with respect to hepatitis, endocrine, bone metabolism, cardiovascular disease, diabetes and other diseases. Revenue generated from the independent clinical laboratory services and other businesses segment was RMB55.4 million, RMB53.2 million and RMB60.1 million in 2015, 2016 and 2017, representing 2.6%, 2.3% and 2.3%, respectively, of our total revenue in the same periods. Gross profit of the independent clinical laboratory services and other businesses segment was RMB22.8 million, RMB16.1 million and RMB20.2 million in 2015, 2016 and 2017, respectively. Gross margin of the independent clinical laboratory services and other businesses segment was 41.2%, 30.3% and 33.5% in 2015, 2016 and 2017, respectively.

### Sales and Distribution

We have established a nationwide sales network of our products and services in China. As of December 31, 2017, our sales network, comprising our own sales force, promoters and distributors, covered 31 provinces, municipalities and autonomous regions in China. In addition, we have an extensive end-user base. As of December 31, 2017, our sales network covered more than 10,000 hospitals and other medical institutions, including over 1,400 Class III hospitals, 4,500 Class II hospitals and 4,300 Class I hospitals in China.

We adopt three major sales models with respect to our pharmaceuticals segment, namely: (i) direct sales through our own sales force; (ii) direct sales through marketing and promotion service by promoters; and (iii) distributorship. Our pharmaceuticals revenue generated from direct sales through own sales force was RMB746.1 million, RMB761.2 million and RMB828.2 million for the years ended December 31, 2015, 2016 and 2017, respectively, accounting for 42.1%, 38.6% and 36.7% of our segment revenue during the same periods. Our pharmaceuticals revenue generated through direct sales with marketing and promotion service by promoters was RMB960.6 million, RMB1,121.9 million and RMB1,322.7 million for the years ended December 31, 2015, 2016 and 2017, respectively, accounting for 54.2%, 56.9% and 58.7% of our segment revenue during the same periods. The relationship between our promoters and us is not that of seller and buyer. We sell certain pharmaceutical products to hospitals and other medical institutions who are our direct customers. Our promoters provide marketing and promotion service to hospitals and other medical institutions with respect to these pharmaceutical products. Our pharmaceuticals revenue generated through distributors was RMB60.8 million, RMB80.7 million and RMB88.1 million for the years ended December 31,

2015, 2016 and 2017, respectively, accounting for 3.4%, 4.1% and 3.9% of our segment revenue for the same periods. The relationship between our distributors and us is seller and buyer. We generally sell our products and services to our customers directly in the remaining three business segments.

In 2015, 2016 and 2017, our selling and distribution expenses were RMB810.8 million, RMB933.9 million and RMB1,094.7 million, respectively. During the Track Record Period, the two largest components of our selling and distribution expenses were (i) service fees paid to promoters and distributors for their marketing and promotion services and (ii) staff costs of our sales and marketing personnel. Our sales service fees amounted to RMB675.0 million, RMB789.6 million and RMB955.0 million in 2015, 2016 and 2017, respectively. Our staff costs were RMB46.0 million, RMB50.4 million and RMB52.2 million in 2015, 2016 and 2017, respectively.

## Research and Development and Product Pipeline

Our research and development activities focus on developing new products, enhancing the safety and efficacy of our existing products and refining production techniques. We carefully select our research and development programs based on market analysis and our industry expertise, with a focus on providing pharmaceuticals to address the unmet medical needs across various therapeutic areas in the PRC. We conduct research and development activities primarily through our in-house research and development team.

We are in the process of research and development of various imaging diagnostic and radiopharmaceuticals. As of the Latest Practicable Date, we had nine imaging diagnostic and therapeutic radiopharmaceuticals under research and development, of which one radiopharmaceutical is ready for production pending approval (i.e. sodium iodine-131 capsule for therapeutic purpose), one radiopharmaceutical at stage of clinical trials (i.e. iodine-131-MIBG injection), three imaging diagnostic and therapeutic radiopharmaceuticals (i.e. sodium fluorine-18 injection, palladium-103 sealed source, and technetium-99 methylene diphosphonate injection) pending application for clinical trials and four imaging diagnostic and therapeutic radiopharmaceuticals under various stages of research and development.

In addition, we also plan to engage in the research and development of other imaging diagnostic and therapeutic radiopharmaceuticals to be funded by the net proceeds of the Global Offering. See "Business — Research and Development — Product Candidates under Development" for further details of our products pipeline.

## **Manufacturing and Production Facilities**

As of December 31, 2017, we had eight, two and one production facilities for (i) imaging diagnostic and therapeutic radiopharmaceuticals, (ii) UBT kits and analyzers and (iii) in vitro immunoassay diagnostic reagents and kits, respectively. Our production facilities for imaging diagnostic and therapeutic radiopharmaceuticals are located in Beijing, Chengdu, Shanghai, Hangzhou, Tianjin, Chongqing, Zhengzhou and Guangzhou. Our production facilities for UBT kits and analyzers are located in Shenzhen and Tongcheng. Our production facility for in vitro immunoassay diagnostic reagents and kits is located in Beijing. As of December 31, 2017, we had three production facilities for radioactive source products in Beijing, Chengdu and Qinshan. The following table shows production capacity, actual production volume and the utilization rate of our major products during the Track Record Period:

## Imaging diagnostic and therapeutic radiopharmaceuticals

	2015			2016			2017		
·	Annual Design Capacity	Actual Production Volume		Annual Design Capacity	Actual Production Volume	Utilization Rate	Annual Design Capacity	Actual Production Volume	Utilization Rate
Fluorine-18-FDG injection (Ci)	11,600	4,892	42.2%	11,600	4,999	43.1%	11,600	4,343	37.4%
Molybdenum-99/technetium- 99m generator (Ci)	28.000	9.078	32.4%	28,000	10,737	38.3%	28.000	16,146	57.6%
Technetium-99m labeled injections	20,000	2,070	32.170	20,000	10,737	30.370	20,000	10,110	37.070
(vial)	567,000	273,187	48.2%	567,000	294,642	52.0%	567,000	344,471	60.8%
Sodium iodine-131 oral solution									
(Ci)	17,000	13,971	82.2%	17,000	15,300	90.0%	17,000	13,395	78.8%
Iodine-125 sealed source (unit)	200,000	230,000	115.0%	200,000	260,000	130.0%	350,000	304,871	87.1%
Strontium-89 chloride injection									
(vial)	35,000	13,285	38.0%	35,000	14,034	40.1%	35,000	14,615	41.8%

## UBT kits and analyzers

		2015		20	16	20	17
	Annual Design Capacity	Actual Production Volume (unit)	Utilization Rate	Actual Production Volume (unit)	Utilization Rate	Actual Production Volume (unit)	Utilization Rate
Carbon-14 UBT kits	18,000,000	15,036,280	83.5%	19,368,240	107.6%	27,388,800	152.2%
Carbon-13 urea UBT kits	5,000,000	3,414,176	68.3%	3,875,809	77.5%	3,850,497	77.0%
Carbon-14 UBT analyzers	5,200	2,811	54.1%	5,125	98.6%	4,698	90.4%
Carbon-13 UBT analyzers	1,000	1,089	108.9%	488	48.8%	498	49.8%

## In vitro immunoassay reagents and kits

		201:	5	2010	6	2017	
	Annual Design Capacity	Actual Production Volume (unit)	Utilization Rate	Actual Production Volume (unit)	Utilization Rate	Actual Production Volume (unit)	Utilization Rate
RIA kits	200,000	141,207	70.6%	6 131,783	65.9%	6 114,387	57.4%
EIA reagents, CLIA reagents and TRFIA	100.000	52.055	54.00	40.465	40.50	40.125	40.10/
reagents	100,000	53,955	54.0%	6 48,465	48.5%	6 49,137	49.1%
Colloidal gold reagents	100,000	1,513	1.5%	6 1,276	1.3%	649	0.7%

## Radioactive source products

		2015		2015		2016		2017	
	Annual Design Capacity	Actual Production Volume	Utilization Rate	Actual Production Volume	Utilization Rate	Actual Production Volume	Utilization Rate		
		(in Ci, except in percentage)							
Cobalt-60 source for gamma knife	2.3 million	54,392	2.4%	194,386	8.5%	42,380.0	1.8%		
Iridium-192 brachytherapy source	10,000	5,736	57.4%	5,296	53.0%	5,198.0	52.0%		
Cobalt-60 source for irradiation service	14.0 million	4.7 million	33.6%	4.3 million	30.7%	7.3 million	52.1%		
Californium-252 startup neutron source	_	_	_	_	_	_	_		
Iridium-192 non-destructive testing									
radioactive source	1.0 million	227,355	22.7%	147,605	14.8%	74,130	7.4%		
Caesium-137 radioactive source	700	51	7.2%	113.3	16.2%	49.3	7.0%		
Americium-241/Beryllium neutron									
source	1000	38	3.8%	44.3	4.4%	71.0	7.1%		

Note:

Please refer to "Business – Pharmaceuticals – Manufacturing of Pharmaceuticals" and "Business – Radioactive Source Products – Manufacturing of Radioactive Source Products" for the calculation basis of annual design capacity and utilization rate of our major products.

## **Expansion Plan**

We are implementing our plans to establish new manufacturing facilities to increase our production capacities with respect to imaging diagnostic and therapeutic radiopharmaceuticals and UBT products. We plan to build two new and modern manufacturing and research and development bases for imaging diagnostic and therapeutic radiopharmaceuticals in Xianghe, Hebei province and Chengdu, Sichuan province to expand our manufacturing capabilities of imaging diagnostic and therapeutic radiopharmaceuticals and to meet the operation requirements for standardized and large-scale production. Moreover, in order to timely meet the increasing demand of short half-life radiopharmaceuticals in the population centers in China, we intend to establish a total of 26 manufacturing and distribution subsidiaries to produce and sell technetium-99m labeled injections and fluorine-18-FDG injection by 2023. We are also in the process of establishing our two new UBT products manufacturing bases to meet the increasing market demand for our UBT kits and analyzers. For more details, see "Business — Expansion Plan" in this prospectus.

### **OUR COMPETITIVE STRENGTHS**

We believe the following competitive strengths contribute to our success and distinguish us from our competitors:

- We are the isotopes and irradiation technology application industry platform of CNNC, the leading nuclear technology conglomerate with whole industry chain in China;
- Leading enterprise in the field of isotopes and irradiation technology applications in China, well positioned to capture the attractive growth potential in the PRC isotopes and irradiation technology industries;
- Comprehensive product portfolio with industry-leading technologies;
- Nationwide sales network and diversified marketing initiatives;
- Robust pipeline of products candidates supported by strong research and development capabilities; and
- Experienced and visionary senior management team leading us to stable growth

#### **OUR STRATEGIES**

We intend to implement the following key strategies:

- Expand product portfolio through investments in the research and development projects;
- Increase market penetration by expanding our manufacturing capacity and strengthening our sales and marketing effort;
- Complement organic growth through strategic acquisitions; and
- Expand and leverage our independent clinical laboratory service capacities to enrich our service offerings

### **COMPETITION**

We face competition mainly from manufacturers of image diagnostic and therapeutic radiopharmaceuticals, UBT kits and analyzers and in vitro immunoassay diagnostic reagents and kits in China. We compete primarily on the basis of research and development capabilities, technological expertise, brand recognition and academic marketing activities. As a result of our long history as the leading provider of a wide range of radiopharmaceuticals, radioactive source products and irradiation service, we believe we are well positioned to compete in the field of isotopes and irradiation technology applications in China.

We are the leading manufacturer and service provider in the field of isotopes and irradiation technology applications in China. According to Frost & Sullivan, we were the largest manufacturer of image diagnostic and therapeutic radiopharmaceuticals, UBT kits and analyzers, RIA kits and radioactive source products in terms of revenue in 2017 in China. We were also the largest EPC service provider for the design, manufacturing and installation of irradiation facilities in terms of revenue combined during the Track Record Period in China, according to Frost & Sullivan. See "Industry Overview" starting at page 76 of this prospectus for details of the competitive landscape of our business operations.

#### MAJOR CUSTOMERS AND SUPPLIERS

## **Major Customers**

Our primary customers are: (i) hospitals and other medical institutions in China with respect to our pharmaceuticals business; (ii) irradiation service providers, gamma ray radiotherapy equipment manufacturers and non-destructive testing equipment manufacturers in China with respect to our radioactive source products business; (iii) manufacturers of medical devices, cosmetics and traditional Chinese medicine, and irradiation service providers in China with respect to our irradiation business; and (iv) hospitals and other medical institutions with respect to our independent clinical laboratory services. For the years ended December 31, 2015, 2016 and 2017, sales to our five largest customers in aggregate accounted for 5.3%, 5.3% and 6.7%, respectively, of our total revenue.

## **Major Suppliers**

Our primary suppliers are: (i) overseas manufacturers of radioisotopes in South Africa, Netherlands, Russia and Canada, overseas manufacturers of carbon-13 and carbon-14 in the US and domestic antigens and antibodies suppliers in China with respect to our pharmaceuticals business; (ii) overseas manufacturers of various radioisotopes in Russia and Canada and the domestic partners for the production of cobalt-60 sealed source for irradiation service with respect to our radioactive source products; (iii) manufacturers of machinery and equipment for irradiators in China for our irradiation business; and (iv) in vitro diagnostic reagents producers in China with respect to our

independent clinical laboratory services. For the years ended December 31, 2015, 2016 and 2017, our five largest suppliers in aggregate accounted for 45.4%, 36.1% and 37.2%, respectively, of our total purchase.

### **CONTROLLING SHAREHOLDER**

As at the Latest Practicable Date, CNNC directly holds 44.47% of our share capital, and indirectly holds 53.97% of our share capital through its controlled entities, i.e., CIAE, NPIC, CNNC Fund, 404 Company and Baoyuan Investment. CIAE and NPIC are public institutes directly controlled and managed by CNNC. CNNC Fund is a company controlled by CNNC. 404 Company is an indirectly wholly-owned subsidiary of CNNC, and Baoyuan Investment is a directly wholly-owned subsidiary of CNNC. Following completion of the Global Offering, CNNC will directly and through the above controlled entities indirectly hold approximately 73.83% of our total enlarged issued share capital in aggregate (assuming no exercise of the Over-allotment Option) and will continue to be our controlling shareholder. For details, see "Relationship with the Controlling Shareholder" starting at page 285 of this prospectus. In order to avoid potential competition, each of CNNC, CIRP, CIAE, NPIC, 404 Company and CNEIC has entered into a non-competition undertaking with our Company. For details of the non-competition undertakings, see "Relationship with the Controlling Shareholder" starting at page 285 of this prospectus.

We have carried out certain transactions with CNNC and/or its associates. For details, see "Connected Transactions" starting at page 236 of this prospectus. We believe we can conduct our business independently from CNNC and its close associates after the completion of Global Offering, see "Relationship with the Controlling Shareholder" starting at page 285 of this prospectus.

### PRE-IPO INVESTMENT

We introduced CAIIF, CAIC and CNNC Fund as our Pre-IPO Investors, and entered into a capital contribution agreement with CNNC, CIAE, NPIC, CNNC Fund, 404 Company, Baoyuan Investment, CAIIF and CAIC on December 21, 2016 pursuant to which, CNNC, CIAE, NPIC, CNNC Fund, 404 Company, Baoyuan Investment, CAIIF and CAIC in aggregate subscribed for RMB850 million of the share capital of the Company. As of the Latest Practicable Date, CNNC Fund, CAIC and CAIIF held approximately 7.83%, 0.98% and 0.59% of the total issued share capital of our Company. Upon completion of the capital contribution agreement, the registered share capital of our Company increased from RMB200,000,000 to RMB239,906,100. For details, see "History, Development and Corporate Structure — History and Development — Pre-IPO Investment" starting at page 120 of this prospectus.

### SUMMARY HISTORICAL FINANCIAL INFORMATION

The following tables present our summary consolidated financial information as of and for the years ended December 31, 2015, 2016 and 2017. This summary has been derived from our consolidated financial information set forth in the Accountants' Report in Appendix I to this prospectus. You should read this summary in conjunction with our consolidated financial information included in the Accountants' Report in Appendix I to this prospectus, including the accompanying notes, and the information set forth in "Financial Information" starting at page 303 of this prospectus.

## **Summary Consolidated Statements of Profit or Loss**

	Year ended December 31,		
	2015	2016	2017
	(RMB in millions)		
Revenue	2,152.1	2,363.1	2,672.0
Cost of sales	(664.9)	(698.8)	(787.3)
Gross profit	1,487.2	1,664.3	1,884.8
Selling and distribution expenses	(810.8)	(933.9)	(1,094.7)
Administrative expenses	(234.3)	(258.3)	(296.0)
Profit before taxation	485.8	512.7	558.0
Income tax	(75.4)	(78.2)	(82.3)
Profit for the year	410.4	434.5	475.6

The following table sets forth our revenue by business segment for the periods indicated:

				Year ei	nded Decem	ber 31,				
		2015			2016			2017		
	Revenue	Inter- segment Revenue	Segment Revenue	Revenue	Inter- segment Revenue	Segment Revenue	Revenue	Inter- segment Revenue	Segment Revenue	
				(RI	MB in millio	ns)				
Pharmaceuticals	1,773.6	5.7	1,779.3	1,971.1	3.1	1,974.2	2,253.8	2.6	2,256.3	
Radioactive source products	275.2	33.3	308.5	287.7	22.0	309.7	292.2	21.2	313.4	
Irradiation	47.9	_	47.9	51.1	_	51.1	65.9	0.7	66.7	
Independent clinical laboratory services and other										
businesses	55.4	12.1	67.5	53.2	11.8	65.0	60.1	45.4	105.6	
Elimination		(51.1)	(51.1)		(36.9)	(36.9)		(69.9)	(69.9)	
Total	2,152.1		2,152.1	2,363.1		2,363.1	2,672.0		2,672.0	

Our total revenue increased from RMB2,152.1 million in 2015 to RMB2,363.1 million in 2016, and further to RMB2,672.0 million in 2017. During the Track Record Period, the general increase in our total revenue was primarily due to the continued increase in our revenue generated from the sales of pharmaceuticals. Please see "Financial Information — Results of Operations" for the detailed discussion of the period to period results of operations.

## **Summary Consolidated Statements of Financial Position**

	As of December 31,		
	2015	2016	2017
	(RM		
Non-current assets	861.7	1,008.2	1,236.9
Current assets	2,108.3	2,574.8	3,459.9
Total assets	2,970.0	3,583.0	4,696.8
Non-current liabilities	212.2	157.0	334.2
Current liabilities	1,404.3	1,952.5	1,916.2
Total Liabilities	1,616.5	2,109.5	2,250.4
Total equity	1,353.7	1,473.5	2,446.3

### **Summary Consolidated Cash Flow Statements**

	Year ended December 31,		
_	2015	2016	2017
_	(RM	)	
Net cash from operating activities	389.5	457.6	429.8
Net cash used in investing activities	(76.0)	(150.4)	(437.5)
Net cash from/(used in) financing activities	(471.0)	(40.8)	228.4
Net increase/(decrease) in cash and cash equivalents	(157.5)	266.4	220.7
Cash and cash equivalents at the beginning of the year/period	809.5	652.1	918.6
Effect of foreign exchange rate changes	0.1	0.1	(0.1)
Cash and cash equivalents at the end of the year/period	652.1	918.6	1,139.2

### **Selected Financial Ratios**

	As of or for the year ended December 31,			
	2015	2016	2017	
Current ratio (times)	1.5	1.3	1.8	
Quick ratio (times)	1.4	1.2	1.7	
Gearing ratio	4.4%	32.6%	6.1%	
Return on assets	14.1%	13.3%	11.5%	
Return on equity	32.5%	30.7%	24.3%	
Gross margin	69.1%	70.4%	70.5%	
Net profit margin	19.1%	18.4%	17.8%	

Note: Gearing ratio equals total interest-bearing debts divided by total equity as of the same date. Please refer to "Financial Information — Financial Ratios" for the calculation method of other financial ratios.

#### **RISK FACTORS**

There are a number of risks involved in our operations and in connection with the Global Offering, many of which are beyond our control. We believe our major risks include:

- Constant technological changes and continuous changing market preferences could materially and adversely affect our business, which require significant research and development efforts, and our investment in new products and services may not result in any commercially viable products and services;
- We may fail to achieve widespread market acceptance due to competition in the PRC isotopes and irradiation technology markets;
- If our promoters fail to effectively market and promote our pharmaceuticals, we may not be able to effectively penetrate the market in China, and our future business growth may be materially and adversely affected; and
- We depend on a stable and adequate supply of quality raw materials and products from our suppliers.

### NON-COMPLIANCE INCIDENTS

During the Track Record Period, we had certain non-compliance incidents such as the transfer of radioactive source to customers without the relevant prior regulatory approval and the failure to obtain the medical device registration certificates for two types of colloidal gold reagents. See "Business — Regulatory Compliance — Historical Non-compliance Incidents" for further details starting at page 221 of this prospectus.

### **BUSINESS OPERATIONS INVOLVING RESTRICTED COUNTRIES**

In 2015, 2016 and 2017, the revenue from our business involving Restricted Countries was approximately RMB0.50 million, RMB0.98 million and RMB0.59 million, respectively, which

accounted for approximately 0.02%, 0.04% and 0.02% of the total revenue of our Group. Our Directors do not expect a significant increase in the revenue from Restricted Countries after the Listing. Details of our business involving Restricted Countries is summarized in "Business — Business Operations Involving Restricted Countries." Please also see "Risk Factors — Risk Relating to Our Business and Industry — We could be adversely affected as a result of our historical and future operations in certain countries and with certain persons that are subject to Sanctions".

Based on the advice of our legal advisors which is based on information and assurances provided by our Group, we believe that the Relevant Persons are unlikely to face the risk of enforcement action for an alleged violation of, or designation under, applicable Sanctions as a result of their participation in the Listing and the Global Offering, taking into account (i) the Relevant Persons were not involved in our Group's historic business with the Restricted Countries, (ii) our undertakings to the Hong Kong Stock Exchange relating to Sanctions compliance as stated in "Business — Business Operations Involving Restricted Countries — Our Undertakings and Internal Control Procedures" in this prospectus, and (iii) our Group's commitment to implement a Sanctions compliance program in order to ensure that our Group does not engage in any transactions that would be prohibited under applicable Sanctions or breach our undertakings to the Hong Kong Stock Exchange.

We will continuously monitor and evaluate our business and take measures to comply with the undertakings made to the Hong Kong Stock Exchange and to protect the interests of our Group and our shareholders. For our undertakings to the Hong Kong Stock Exchange and the internal controls regarding Sanctions compliance that we are committed to implement, see "Business — Business Operations Involving Restricted Countries — Our Undertakings and Internal Control Procedures" starting at page 191 of this prospectus.

#### **DIVIDEND**

For the years ended December 31, 2015, 2016 and 2017, we declared cash dividends of RMB172.1 million, RMB186.3 million and RMB175.2 million, to our shareholders, respectively, and as of December 31, 2015, 2016 and 2017, we paid cash dividends of nil, RMB319.0 million and RMB177.5 million to our shareholders, respectively. On March 30, 2018, we declared cash dividends of RMB66.5 million to our shareholders.

We currently do not have a fixed dividend payout ratio, and we cannot assure you that dividends will be declared or paid in the future. See "Financial Information — Dividend Policy" starting at page 348 of this prospectus.

#### **OFFERING STATISTICS**

The numbers in the following table are based on the assumptions that (i) the Global Offering has been completed and 79,968,700 H Shares are issued and sold in the Global Offering, (ii) the Overallotment Option is not exercised, and (iii) 319,874,800 Shares are issued and outstanding following the completion of the Global Offering.

	Based on an Offer Price of HK\$17.80 per H Share	Based on an Offer Price of HK\$24.20 per H Share
Market capitalization of Shares after completion of the Global Offering	HK\$5,693.8 million HK\$11.02	HK\$7,741.0 million HK\$12.57

<sup>(1)</sup> The unaudited pro forma adjusted consolidated net tangible assets per Share was calculated after adjustments as specified in Appendix II to this Prospectus.

#### **USE OF PROCEEDS**

Assuming an Offer Price of HK\$21.0 per H Share, being the mid-point of the indicative Offer Price range stated in this prospectus, and assuming the Over-allotment Option is not exercised, we currently intend to use such net proceeds from the Global Offering as follows:

- approximately 41.7% of the net proceeds, or approximately HK\$656.2 million, is expected
  to be used for investment in two imaging diagnostic and therapeutic radiopharmaceuticals
  manufacturing and research and development bases in Xianghe, Hebei province and
  Chengdu, Sichuan province to enhance our manufacturing and research and development
  capabilities. See "Business Expansion Plan" for further details;
- approximately 4.7% of the net proceeds, or approximately HK\$74.0 million, is expected to be used for establishment of four manufacturing and distribution subsidiaries to primarily produce and distribute technetium-99m-labeled injections and fluorine-18-FDG injection in China. See "Business Expansion Plan" for further details;
- approximately 5.9% of the net proceeds, or approximately HK\$92.8 million, is expected to be used for the establishment of new production facilities in Shenzhen, Guangdong province and Tongcheng, Anhui province to expand our manufacturing capacity of UBT kits and analyzers. See "Business Expansion Plan" for further details;
- approximately 17.7% of the net proceeds, or approximately HK\$278.5 million, is expected
  to be used for investment in the research and development of various imaging diagnostic
  and therapeutic radiopharmaceuticals, raw materials of radioactive source product,
  medical radioisotopes, and UBT products and related raw materials. See "Business —
  Research and Development" for further details;
- approximately 20.0% of the net proceeds, or approximately HK\$314.7 million, is expected
  to be used for selective acquisitions. Please see "Business Our Strategies" for the
  selection criteria of acquisition targets.
- approximately 10.0% of the net proceeds, or approximately HK\$157.4 million, is expected to be used for working capital and general corporate purposes.

### LISTING EXPENSES

Listing expenses represent professional fees, underwriting commissions and other fees incurred in connection with the Global Offering. We estimate that our listing expenses will be approximately RMB87.6 million (assuming an Offer Price of HK\$21.0 per Offer Share, being the mid-point of the stated Offer Price range, and assuming the Over-allotment Option is not exercised). During the Track Record Period, RMB1.9 million have been recognized in our consolidated statements of profit or loss. Of the remaining RMB85.7 million, approximately RMB8.6 million will be recognized in our consolidated statements of profit or loss in 2018 and approximately RMB77.1 million will be capitalized. Our Directors do not expect such expenses to materially impact our results of operations in 2018.

#### RECENT DEVELOPMENTS

Since December 31, 2017, the PRC isotope and irradiation industry and our business have continued to grow. Since December 31, 2017 and up to the Latest Practicable Date, we did not obtain any bank loan.

On December 14, 2017, the Company, CNNC Taizhou, Mr. Cao Maofen and Saiwang (Taizhou) Irradiation Technology Application Co., Ltd. (賽王泰州輻射技術應用有限公司) ("Saiwang")

entered into an Asset Acquisition Agreement, pursuant to which CNNC Taizhou agreed to purchase all the operating assets of Saiwang at the consideration of RMB35 million. On April 27, 2018, the Company entered into a Share Purchase Agreement with Beijing Liuhe Zhongxin Culture Development Co. Limited (北京六合眾信文化發展有限公司) ("Liuhe Zhongxin"), pursuant to which the Company agreed to purchase 100% of the equity interest in Beijing Sanjin Electronic Corporation Limited (北京三金電子集團有限公司) ("Sanjin") held by Liuhe Zhongxin at the consideration of RMB211.5 million. As of the Latest Practicable Date, the post-track-record-period acquisitions above are ongoing and subject to completion. The Company is also considering to acquire certain business of Xinghua Meiquan Technology Co., Ltd (興化市美全科技有限公司) ("Meiquan"), but had not entered into any form of agreement (binding or otherwise) relating to the possible business acquisition of Meiquan. See "Waivers from Strict Compliance with the Listing Rules — Waiver from Strict Compliance with Rules 4.04(2) and 4.04(4) of the Listing Rules" and "History, Development and Corporate Structure — Post Track Record Period Acquisitions" of this prospectus.

As of the Latest Practicable Date, CNNC is planning to merge with China Nuclear Engineering & Construction Group Corporation Limited (中國核工業建設集團有限公司) (the "CNEC") by absorption, upon the completion of which, CNEC will become a wholly-owned subsidiary of CNNC and a connected person of the Company. We expect that such merge by absorption is unlikely to complete before, or immediately after, the completion of the Global Offering.

CNEC is mainly engaged in engineering and construction of nuclear power plants, industrial and civil engineering, and clean-energy businesses. To the best knowledge and information of the Directors, as of the Latest Practicable Date CNEC is an Independent Third Party and not involved in any business which competes or is likely to compete, either directly or indirectly, with our Group's principal business. During the Track Record Period and up to the Latest Practicable Date, to the best knowledge of the Directors, the Group sold non-destructive testing radioactive sources to CNEC and procured construction and engineering services from CNEC. The amounts of the transactions involved in the sales of non-destructive testing radioactive source were RMB725,791.30, RMB336,749.65 and RMB1,469,692.46 for the three years of 2015, 2016 and 2017, respectively. The amounts of the transactions involved in the purchase of engineering services from CNEC were RMB22,800, RMB2,289,929.19 and RMB120,900.86 for the three years of 2015, 2016 and 2017, respectively. The Company will fully comply with the relevant requirements of the Listing Rules (including but not limited to Chapter 14A of the Listing Rules) when CNEC becomes a connected person of the Company.

Our Directors have confirmed, after performing all of the due diligence that the Directors consider appropriate, that there has been no event which could materially affect the information shown in our consolidated financial information included in the Accountants' Report set forth in Appendix I to this prospectus since December 31, 2017 (being the latest date of our audited consolidated financial statements) and up to the date of this prospectus, and as of the date of this prospectus there has been no material adverse change in our financial or trading position or prospects.

In this prospectus, unless the context otherwise requires, the following terms and expressions have the meanings set forth below.

"404 Company"	CNNC 404 Company Limited (中核四〇四有限公司), a company incorporated under the laws of the PRC on May 24, 1986, a shareholder of our Company and a wholly-owned subsidiary of CNNC
"Anhui Young-Hearty"	Anhui Young-Hearty Medical Appliance & Equipment Co. Ltd

(安徽養和醫療器械設備有限公司), a company incorporated under the laws of PRC on July 2, 2002, and a wholly-owned subsidiary of Headway

WHITE application form(s), YELLOW application form(s) and GREEN applications form(s), or where the context so requires, any of them, relating to the Hong Kong Public Offering

the Arbitration Law of the PRC, as amended, supplemented or otherwise modified from time to time

the articles of association of our Company (as amended) which was passed at the 2016 annual general meeting on March 31, 2017 and shall become effective on the Listing Date, a summary of which is set out in Appendix V to this prospectus

China Baoyuan Investment Co., Ltd. (中國寶原投資有限公司, previously known as "中國中核寶原資產控股公司"), a company incorporated under the laws of the PRC on January 20, 1988 and a shareholder of our Company and a wholly-owned subsidiary of CNNC

BINE High-Tec Co., Ltd. (北京核二院比尼新技術有限公司), formerly known as Beijing Nuclear Engineering Research and Design Institute BINE New Technology Company (北京核工程研究設計院比尼新技術公司), a company incorporated under the laws of the PRC on August 7, 1990 and owned by our Company as to 80% of its equity interest as of the Latest Practicable Date

Beijing North Institute of Biological Technology Co., Ltd. (北京北方生物技術研究所有限公司), formerly known as Northern Immunologic Reagent Research Institute (北方免疫試劑研究所), a company incorporated under the laws of the PRC on June 6, 1985 and a wholly-owned subsidiary of our Company

the board of Directors of our Company

"Application Form(s)"

"Arbitration Law"

"Articles of Association" or "Articles"

"Baoyuan Investment"

"BINE"

"BNIBT"

"business day" a day on which banks in Hong Kong are generally open for normal

banking business to the public (excluding Saturday, Sunday or

public holidays in Hong Kong)

"CAGR" compound annual growth rate

"CAIC" China Aerospace Investment Co., Ltd. (航天科工資產管理有限公司),

a company incorporated under the laws of the PRC on October 29,

2009 and a shareholder of our Company

"CAIIF" Beijing Aerospace Industry Investment Fund LLP (北京航天

產業投資基金 (有限合夥)), a limited liability partnership incorporated under the laws of the PRC on March 3, 2010 and a shareholder of

our Company

"CAS" China's Accounting Standards for Business Enterprises

"CBRC" the China Banking Regulatory Commission

"CCASS" the Central Clearing and Settlement System established and

operated by HKSCC

"CCASS Clearing Participant" a person admitted to participate in CCASS as a direct clearing

participant or general clearing participant

"CCASS Custodian Participant" a person admitted to participate in CCASS as a custodian

participant

"CCASS Investor Participant" a person admitted to participate in CCASS as an investor

participant who may be an individual, joint individuals or a

corporation

"CCASS Participant" a CCASS Clearing Participant, a CCASS Custodian Participant or

a CCASS Investor Participant

"CCCC" CNNC Isotope & Radiation (Changehun) Radiation Technology

Co., Ltd. (中核同輻 (長春) 輻射技術有限公司), a company incorporated under the laws of PRC on January 25, 2013 and a

wholly-owned subsidiary of our Company

"CFDA" the China Food and Drug Administration of the PRC

(中華人民共和國國家食品藥品監督管理總局), formerly known as the State Food and Drug Administration of the PRC (國家食品藥品監督管理局) and currently transformed to the State Administration of Market Regulation (國家市場監督管理總局) according to the Notice of the State Council regarding the Establishment of Organizations (國務院關於機構設置的通知) (Guo Fa

[2018] No.6) issued by the State Council on March 24, 2018

**DEFINITIONS** "China" or "PRC" the People's Republic of China, for the purpose of this prospectus, excluding Hong Kong, Macau and Taiwan "China Isotope" China Isotope Company (中國同位素公司), a company owned by the whole people incorporated under the laws of the PRC on January 31, 1983, the predecessor of our Company "China Isotope Company China Isotope Company Limited (中國同位素有限公司), a limited Limited" liability company restructured from China Isotope on December 4, 2007, the predecessor of our Company "China North Nuclear Fuel" China North Nuclear Fuel Co., Ltd. (中核北方核燃料元件有限公司), a company incorporated under the laws of PRC on May 30, 1985 and a wholly-owned subsidiary of CNNC China Institute of Atomic Energy (中國原子能科學研究院), a public "CIAE" institute established under the laws of the PRC in 1950, which is directly controlled and managed by CNNC and a promoter and substantial shareholder of our Company "CIC Lab" Beijing CIC Clinical Ltd. Laboratory Co.. (北京中同藍博臨床檢驗所有限公司), formerly known as Beijing CIC Clinical Lab (北京中同藍博臨床檢驗所), a company incorporated under the laws of PRC on March 2, 2007, and a wholly-owned subsidiary of our Company "CIRP" China Institute for Radiation Protection (中國輻射防護研究院), a public institute established under the laws of the PRC on July 13, 1962, which is directly controlled and managed by CNNC "CNEIC" China Nuclear Energy Industry Corporation (中國原子能工業有限公司), a company incorporated under the laws of the PRC on January 15, 1982 and a wholly-owned subsidiary of **CNNC** (CNNC)

"CNGT"

Chengdu Gaotong Isotope Co., Ltd. (成都中核高通同位素股份有限公司), a company incorporated under the laws of the PRC on June 11, 2002 and owned by our Company as to 90.38% of its equity interest as of the Latest Practicable Date

"CNNC"

China National Nuclear Corporation (中國核工業集團有限公司、 "中國核工業集團公司"), known as a company incorporated under the laws of the PRC on June 29, 1999, a promoter and the controlling shareholder of our Company

"CNNCFC"

CNNC Finance Company Limited (中核財務有限責任公司), a company incorporated under the laws of the PRC on July 21, 1997 and controlled by CNNC

DEFINITIONS	
"CNNC Financial Leasing Company"	CNNC Financial Leasing Co., Ltd. (中核融資租賃有限公司), a company incorporated under the laws of the PRC on December 22, 2015 and controlled by CNNC
"CNNC Fund"	Beijing CNNC Industry Investment Fund (LLP) (北京中核產業投資基金 (有限合夥)), a limited liability partnership incorporated under the laws of the PRC on December 10, 2015 and a shareholder of our Company and a non-wholly-owned subsidiary of CNNC
"CNNC Jianzhong Nuclear Fuel"	CNNC Jianzhong Nuclear Fuel Co., Ltd. (中核建中核燃料元件有限公司), a company incorporated under the laws of PRC on June 6, 1986 and a wholly-owned subsidiary of CNNC
"CNNC Taizhou"	CNNC (Taizhou) Irradiation Technology Co. Ltd. (中核 (泰州) 輻照科技有限公司), a company incorporated under the laws of PRC on December 7, 2017, and owned by our Company as to 86% of its equity interest as of the Latest Practicable Date
"CNNC Tongxing"	CNNC Tongxing (Beijing) Nuclear Technology Co., Ltd. (中核同興(北京) 核技術有限公司), a company incorporated under the laws of the PRC on March 12, 2010 and owned by our Company and a subsidiary of CNNC as to 51% and 49% of its equity interest, respectively, as of the Latest Practicable Date
"Companies (Winding up and Miscellaneous Provisions) Ordinance"	the Companies (Winding up and Miscellaneous Provisions) Ordinance (Chapter 32 of the Laws of Hong Kong), as amended, supplemented or otherwise modified from time to time
"Companies Ordinance"	the Companies Ordinance (Chapter 622 of the Laws of Hong Kong), as amended, supplemented or otherwise modified from time to time
"Company", "our Company", "we", or "us"	China Isotope & Radiation Corporation (中國同輻股份有限公司), a joint-stock limited company restructured from China Isotope Company Limited under the laws of the PRC on December 6, 2011, including its predecessor(s) (if the context requires)

"Company Law" or "PRC Company Law"

Company Law of the People's Republic of China (中華人 民共和國公司法), as amended and adopted by the Standing Committee of the Tenth National People's Congress on October 27, 2005 and effective on January 1, 2006, as amended, supplemented or otherwise modified from time to time, which was further amended on December 28, 2013 to take effective on March 1, 2014

"Constitution"

the Constitution of the People's Republic of China, as amended, supplemented or otherwise modified from time to time

	DEFINITIONS
"CSDCC"	China Securities Depository and Clearing Corporation Limited (中國證券登記結算有限責任公司)
"CSRC"	China Securities Regulatory Commission (中國證券監督管理委員會)
"Designated Persons"	individuals and entities either listed on an official Sanctions list maintained by a Sanctions Authority or owned or controlled by such persons. For avoidance of doubt, Sectoral Sanctions Targets (defined below) are not considered Designated Persons.
"Director(s)"	director(s) of our Company
"Domestic Share(s)"	ordinary share(s) issued by our Company, with a nominal value of RMB1.00 each, which are subscribed for or credited as paid in Renminbi
"EIT Law"	Enterprise Income Tax Law of the People's Republic of China (中華人民共和國企業所得稅法) (as amended, supplemented or otherwise modified from time to time)
"EPC"	engineering, procurement and construction
"FDA"	Food and Drug Administration of the United States
"Frost & Sullivan"	Frost & Sullivan (Beijing) Inc., Shanghai Branch Co., an independent global market research and consulting company which was founded in 1961 and based in the United States
"Frost & Sullivan Report"	a report prepared by Frost & Sullivan on the Chinese isotopes and irradiation technology application market, which was commissioned by the Company
"Global Offering"	the Hong Kong Public Offering and the International Offering
"GREEN Application Form(s)"	the application form(s) to be completed by the <b>White Form eIPO</b> Service Provider, Computershare Hong Kong Investor Services Limited
"Group," "our Group," "we" or "us"	our Company and its subsidiaries (or our Company and any one or more of its subsidiaries, as the context may require) and except where the context indicates otherwise, includes their respective predecessor (if any)
"H Share Registrar"	Computershare Hong Kong Investor Services Limited

"H Share(s)" overseas listed foreign shares in the share capital of our Company

with a nominal value of RMB1.00 each, which are to be subscribed for and traded in HK dollars and listed on the Hong

Kong Stock Exchange

"Hainan Haiyuan" CNNC Hainan Haiyuan Development Co., Ltd. (中核海南海

原開發有限公司), a company incorporated under the laws of the PRC on January 6, 1989 and owned by our Company and Baoyuan Investment as to 92.65% and 7.35% of its equity interest,

respectively, as of the Latest Practicable Date

"Headway" Shenzhen Zhonghe Headway Bio-Sci & Tech Co., Ltd. (深圳市

中核海得威生物科技有限公司), a company incorporated under the laws of PRC on August 9, 1996 and owned by our Company (directly and indirectly) and an associate of CNNC as to 54.1% and 27.9% of its equity interest, respectively, as of the Latest

Practicable Date

"HK\$" or "HK dollars" Hong Kong dollars and cents, respectively, the lawful currency of

Hong Kong

"HKSCC" Hong Kong Securities Clearing Company Limited, a wholly

owned subsidiary of Hong Kong Exchanges and Clearing Limited

"HKSCC Nominees" HKSCC Nominees Limited, a wholly owned subsidiary of

**HKSCC** 

"Hong Kong" or "HK" Hong Kong Special Administrative Region of the PRC

"Hong Kong Listing Rules" or the Rules Governing the Listing of Securities on The Stock

"Listing Rules" Exchange of Hong Kong Limited (as amended from time to time)

"Hong Kong Offer Shares" the 7,997,200 H Shares initially offered by our Company for subscription at the Offer Price pursuant to the Hong Kong Public

Offering (subject to reallocation as described in "Structure of the

Global Offering")

"Hong Kong Public Offering" the offer of the Hong Kong Offer Shares for subscription by the

public in Hong Kong (subject to adjustment as described in "Structure of the Global Offering") at the Offer Price plus brokerage, SFC transaction levy and Hong Kong Stock Exchange trading fee, on and subject to the terms and conditions described in this prospectus and on the Application Forms as further described in "Structure of the Global Offering — Hong Kong Public

Offering"

"Hong Kong Stock Exchange" or The Stock Exchange of Hong Kong Limited, a wholly owned

"Stock Exchange" subsidiary of Hong Kong Exchanges and Clearing Limited

"Hong Kong Underwriters"

the underwriters of the Hong Kong Public Offering listed in "Underwriting — Hong Kong Underwriters"

"Hong Kong Underwriting Agreement"

the underwriting agreement on or around Thursday, June 21, 2018, relating to the Hong Kong Public Offering and entered into by, among others, our Company, the Sole Sponsor, the Joint Global Coordinators, the Joint Bookrunners and the Hong Kong Underwriters, as further described in "Underwriting — Underwriting Arrangements and Expenses"

"HTA"

HTA Co., Ltd. (原子高科股份有限公司), formerly known as Beijing HTA Nuclear Techno (北京原子高科核技術應用股份有限公司), a company incorporated under the laws of the PRC on May 18, 2001 and owned by our Company and a subsidiary of CNNC as to 68.28% and 3.02% of its shares respectively as of the Latest Practicable Date, the shares of which are listed on the National Equities Exchange and Quotations (stock code: 430005)

"HTA (Guangzhou)"

HTA (Guangzhou) Isotope Pharmaceutical Co., Ltd. (廣州市原子高科同位素醫藥有限公司), a company incorporated in China under the laws of the PRC on January 24, 2000 and owned by HTA as to 80% of its equity interest as of the Latest Practicable Date

"Huakang Radiation"

Zhangjiagang CNNC Huakang Radiation Co., Ltd. (張家港市中核華康輻照有限公司), formerly known as Zhangjiagang New Radioactive Technology Application Co., Ltd. (張家港市新高輻射技術應用有限公司), a company incorporated under the laws of PRC on November 5, 2002 and owned by our Company (directly and indirectly) as to 52.15% of its equity interest as of the Latest Practicable Date

"IFRS"

International Financial Reporting Standards

"Independent Third Party(ies)"

person(s) or company(ies) which, to the best of our Directors' knowledge having made all reasonable enquiries, is/are not connected (within the meaning of the Listing Rules) with the Group

"International Offer Shares"

the 71,971,500 Shares initially offered by our Company for subscription or purchase pursuant to the International Offering together with (where relevant) any additional Shares which may be issued by our Company pursuant to the exercise of the Overallotment Option (subject to reallocation as described in "Structure of the Global Offering")

"International Offering"

the offer of the International Offer Shares by the International Underwriters outside the United States in offshore transactions in accordance with Regulation S or another available exemption from registration under the US Securities Act, as further described in "Structure of the Global Offering" in this prospectus

	DEFINITIONS
"International Underwriters"	the group of international underwriters expected to enter into the International Underwriting Agreement to underwrite the International Offering
"International Underwriting Agreement"	the underwriting agreement expected to be entered into on or around June 28, 2018 by, among others, the Company and the International Underwriters, as further described in "Underwriting — The International Offering" in this prospectus
"Isotope (Shanghai)"	China Isotope (Shanghai) Co., Ltd. (中國同位素上海有限公司), a company incorporated under the laws of the PRC on September 16, 1989 and a wholly-owned subsidiary of our Company
"Isotope (Shenzhen)"	China Isotope (Shenzhen) Co., Ltd. (中國同位素深圳有限公司), a company incorporated under the laws of the PRC on March 28, 1985 and a wholly-owned subsidiary of our Company
"Joint Bookrunners"	China International Capital Corporation Hong Kong Securities Limited, CLSA Limited and ABCI Capital Limited
"Joint Global Coordinators"	China International Capital Corporation Hong Kong Securities Limited and CLSA Limited
"Joint Lead Managers"	China International Capital Corporation Hong Kong Securities Limited, CLSA Limited, ABCI Securities Company Limited and China Securities (International) Corporate Finance Company Limited
"Latest Practicable Date"	June 12, 2018, being the latest practicable date prior to the printing of this prospectus for the purpose of ascertaining certain information contained in this prospectus
"Listing"	the listing of our H Shares on the Main Board of the Stock Exchange
"Listing Committee"	the Listing Committee of the Stock Exchange
"Listing Date"	the date, expected to be on or around Friday, July 6, 2018, on which our H Shares are listed and from which dealings in our H Shares are permitted to commence on the Stock Exchange
"Macau"	Macau Special Administrative Region of the PRC
"Main Board"	the stock market (excluding the option market) operated by the Hong Kong Stock Exchange which is independent from and operated in parallel with the Growth Enterprise Market of the Hong Kong Stock Exchange

"Mandatory Provisions"	Mandatory Provisions for Articles of Association of Companies to be Listed Overseas (as amended, supplemented or otherwise modified from time to time) for inclusion in the articles of association of companies incorporated in the PRC to be listed overseas (including Hong Kong), which were promulgated by the former Securities Commission of the State Council (國務院 證券委員會) and the former State Commission for Restructuring the Economic Systems (國家經濟體制改革委員會) on August 27, 1994
"MEP"	the Ministry of Environmental Protection of the PRC (中華人民共和國環境保護部) and transformed to the Ministry of Ecology and Environment of the PRC (中華人民共和國生態環境部) according to the Notice of the State Council regarding the Establishment of Organizations (國務院關於機構設置的通知) (Guo Fa [2018] No.6) issued by the State Council on March 24, 2018
"Ministry of Finance" or "MOF"	Ministry of Finance of the PRC (中華人民共和國財政部)
"Ministry of Nuclear Industry"	Ministry of Nuclear Industry of the PRC (中華人民共和國核工業部), which is converted to China Nuclear Industry Corporation and then CNNC, the predecessor of CNNC
"MOFCOM"	Ministry of Commerce of the PRC (中華人民共和國商務部)
"MOHRSS"	the Ministry of Human Resources and Social Security of the PRC (中華人民共和國人力資源和社會保障部)
"National Energy Administration"	the National Energy Administration of the PRC (國家能源局)
"National Medical Insurance Pharmaceuticals Catalog"	The Medicine Catalog for the National Basic Medical Insurance, Industrial Injury Insurance and Maternity Insurance (2017) (《國家基本醫療保險、工傷保險和生育保險藥品目錄國家 (2017)》)
"NDRC"	National Development and Reform Commission of the PRC (中華人民共和國發展和改革委員會)
"NEEQ"	National Equities Exchange and Quotations
"New York Convention"	the Convention on the Recognition and Enforcement of Foreign Arbitral Awards
"NHFPC"	"National Health and Family Planning Commission of the PRC" (中華人民共和國國家衛生和計劃生育委員會)
"NPC"	the National People's Congress of the PRC (中華人民共和國全國人民代表大會)

"NPIC" Nuclear Power Institute of China (中國核動力研究設計院), a public

institute established under the laws of the PRC in 1965, which is controlled and managed by CNNC and a promoter and a

substantial shareholder of our Company

"Offer Price" the final price per Offer Share in Hong Kong dollars (denominated

in HKD, exclusive of 1% brokerage fee, 0.0027% SFC transaction levy and 0.005% Hong Kong Stock Exchange trading fee) of not more than HK\$24.20 and expected to be not less than HK\$17.80, at which Hong Kong Offer Shares are to be subscribed, to be determined in the manner further described in "Structure of the

Global Offering — Pricing and Allocation"

"Offer Share(s)" the Hong Kong Offer Shares and the International Offer Shares,

together with, where relevant, any additional H Shares which may be issued by our Company pursuant to the exercise of the Over-

allotment Option

"Over-allotment Option" the option expected to be granted by our Company to the

International Underwriters, exercisable by the Sole Representative (on behalf of the International Underwriters) pursuant to the International Underwriting Agreement, pursuant to which our Company may be required to sell up to an aggregate of 11,995,300 Shares at the Offer Price to cover, among others, over-allocations in the International Offering, if any, further details of which are

described in "Structure of the Global Offering" in this prospectus

"PBOC" the People's Bank of China (中國人民銀行), the central bank of the

**PRC** 

"PRC GAAP" generally accepted accounting principles in the PRC

"PRC Legal Advisors" King & Wood Mallesons

Agreement"

"Pre-IPO Investors" CNNC Fund, CAIIF and CAIC

"Price Determination the agreement to be entered into by the Joint Global Coordinators

(on behalf of the Underwriters) and our Company on the Price

Determination Date to record and fix the Offer Price

"Price Determination Date" the date, expected to be on or around Thursday, June 28, 2018

(Hong Kong time) on which the Offer Price is determined, or such later time as the Joint Global Coordinators (on behalf of the Underwriters) and our Company may agree, but in any event no

later than Wednesday, July 4, 2018

"prospectus" this prospectus being issued in connection with the Hong Kong

Public Offering

"province" a province or, where the context requires, a provincial level autonomous region or municipality, under the direct supervision of the central government of the PRC Qinshan No. 3 Nuclear Power Co., Ltd. (秦山第三核電有限公司), a "Qinshan No. 3 Nuclear Power" company incorporated under the laws of the PRC on January 31, 1997 and a non-wholly-owned subsidiary of CNNC "Regulation S" Regulation S under the US Securities Act "Relevant Persons" The Hong Kong Stock Exchange, the Listing Committee and its members, HKSCC, HKSCC Nominees, our shareholders, investors, the Sole Sponsor and the underwriters of the Global Offering. "Restricted Countries" Sanctioned Countries and Targeted Countries "RMB" or "Renminbi" Renminbi, the lawful currency of the PRC "SAFE" State Administration of Foreign Exchange of the PRC (中國國 家外匯管理局) "Sanctioned Countries" countries and territories that are subject to comprehensive US country-based sanctions programs, including Crimea, Cuba, Iran, North Korea, Sudan, and Syria "Sanctions" restrictive economic measures imposed by Sanctions Authorities of the US, EU, Hong Kong, and/or Australia against countries, governments, entities, groups and individuals, including measures implemented by such Sanctions Authorities to give effect to UN sanctions "Sanctions Authorities" state or supranational authorities that are empowered to enact or are charged with implementing, administering or enforcing Sanctions "Sanctions Targets" certain countries, governments, entities, groups and individuals that are subject to Sanctions "SASAC" State-owned Assets Supervision and Administration Commission of the State Council (國務院國有資產監督管理委員會) "SAT" State Administration of Taxation of the PRC (國家税務總局) "Sectoral Sanctions" EU and US Sanctions measures targeting the financial, defense, and energy sectors of the Russian economy "Sectoral Sanctions Targets" entities that are subject to Sectoral Sanctions "SFC" the Securities and Futures Commission of Hong Kong

"SFO" or "Securities and Futures the Securities and Futures Ordinance, Chapter 571 of the Laws of Hong Kong, (as amended, supplemented or otherwise modified Ordinance" from time to time) "Shanghai GMS Pharmaceutical" Shanghai GMS Pharmaceutical Co., Ltd. (上海欣科醫藥有限公司), a company incorporated under the laws of the PRC on October 7, 1993 and owned by our Company as to 49% of its equity interest as of the Latest Practicable Date "Shanghai Yuanzi Kexing" Shanghai Yuanzi Kexing (上海原子科興藥業有限公司), a company incorporated under the laws of the PRC on March 23, 1995 and owned by HTA as to 70% of its equity interest as of the Latest Practicable Date "Shareholders(s)" holder(s) of the Share(s) the ordinary shares in the capital of our Company with a nominal "Share(s)" value of RMB1.00 each "Shenzhen CICAM" Shenzhen CICAM Manufacturing Co.. Ltd. (深圳西卡姆同位素有限公司), a company incorporated under the laws of the PRC on August 28, 1992 and owned by Isotope (Shenzhen) as to 49% of its equity interest "Sichuan Irradiation" CNNC Isotope & Radiation (Sichuan) Radiation Technology Co., Ltd. (中核同輻(四川)輻射技術有限公司), a company incorporated under the laws of PRC on March 12, 2013 and a wholly-owned subsidiary of our Company "SME(s)" small and medium-sized enterprise(s) "SOE(s)" state-owned enterprise(s) "Sole Representative" China International Capital Corporation Hong Kong Securities Limited "Sole Sponsor" China International Capital Corporation Hong Kong Securities Limited "Special Regulations" the Special Regulations of the State Council on the Overseas Offering and Listing of Shares by Joint Stock Limited Companies (國務院關於股份有限公司境外募集股份及上市的特別規定), promulgated by the State Council on August 4, 1994 China International Capital Corporation Hong Kong Securities "Stabilizing Manager" Limited "State Council" the State Council of the People's Republic of China (中華人民共和國國務院) "Supervisor(s)" member(s) of our Supervisory Committee "Supervisory Committee" the supervisory committee of our Company

DEFINITIONS	
"Suzhou Radiation"	Suzhou CNNC Huadong Radiation Co., Ltd. (蘇州中核華東輻照有限公司), formerly known as Wujiang Radiation Center of Suzhou Medical College (蘇州醫學院吳江輻照中心), a company incorporated under the laws of the PRC on December 15, 1994 and owned by our Company as to 51.59% of its equity interest as of the Latest Practicable Date
"Targeted Countries"	countries or territories that are subject to targeted country-based Sanctions, but that are not one of the Sanctioned Countries.
"Track Record Period"	the three years ended December 31, 2015, 2016 and 2017
"US" or "United States"	the United States of America, its territories, its possessions and all areas subject to its jurisdiction
"US Securities Act"	the United States Securities Act of 1933 (as amended) and the rules and regulations promulgated thereunder
"Underwriters"	the Hong Kong Underwriters and the International Underwriters
"Underwriting Agreements"	the Hong Kong Underwriting Agreement and the International Underwriting Agreement
"UNSC"	the UN Security Council
"US\$" or "US dollars"	United States dollars, the lawful currency of the United States
"WHITE Application Form(s)"	the application form(s) for use by the public who require(s) such Hong Kong Offer Shares to be issued in the applicant's own name
"White Form eIPO"	the application for Hong Kong Offer Shares to be issued in the applicant's own name by submitting applications online through the designated website of <b>White Form eIPO</b> at www.eipo.com.hk
"White Form eIPO Service Provider"	Computershare Hong Kong Investor Services Limited
"YELLOW Application Form(s)"	the application form(s) for use by the public who require(s) such Hong Kong Offer Shares to be deposited directly into CCASS
"Yunke Pharm"	Chengdu Yunke Pharmaceutical Co., Ltd. (成都雲克藥業有限責任公司), a company incorporated under the laws of PRC on July 5, 2001 and owned by NPIC as to 47.89% of its equity interest as of the Latest Practicable Date

In this prospectus, the terms "associate(s)," "close associate(s)," "connected person(s)," "core connected person(s)," "connected transaction(s)," "controlling shareholder(s)" and "substantial shareholder(s)" shall have the meanings given to such terms in the Hong Kong Listing Rules, unless the context otherwise requires.

Certain amounts and percentage figures included in this prospectus have been subject to rounding. Accordingly, figures shown as totals in certain tables may not be an arithmetic aggregation of the figures preceding them. Any discrepancies in any table or chart between the total shown and the sum of the amounts listed are due to rounding.

For ease of reference, the names of the PRC established companies or entities, laws or regulations have been included in this prospectus in both the Chinese and English languages and in the event of any inconsistency, the Chinese versions shall prevail.

This glossary of technical terms contains explanations of certain technical terms used in this prospectus. As such, these terms and their meanings may not correspond to standard industry meanings or usage of these terms.

"antibody" protein produced by B cells in response to a foreign molecule or invading microorganism. Also called immunoglobulin "antigen" molecule that is able to provoke an immune response "assay" examination and determination as to characteristics "autoimmune disease" diseases such as rheumatoid arthritis and lupus which arise from an abnormal immune response of the body against substances and tissues normally present in the body "blood disease" any disease of the blood, involving the red blood cells, white blood cells, or platelets or the tissues in which these elements are formed or of bleeding and blood clotting "bone metabolism" a lifelong process where mature bone tissue is removed from the skeleton (a process called bone resorption) and new bone tissue is formed (a process called ossification or new bone formation) "brachytherapy" a form of radiotherapy where a sealed radioactive source is placed inside or next to the area requiring treatment "cardiovascular disease" also called heart disease, a class of diseases that involve the heart or blood vessels "CLIA" abbreviation of "chemiluminescence immunoassay", an in vitro assay technique which increase the analytical sensitivity of immunoassays by using chemiluminescent indicators such as luminol to directly label the detection antibody or antigen "cytokine" a cell signaling molecule that aid cell to cell communication in immune responses and stimulate the movement of cells towards sites of inflammation, infection and trauma "diabetes" a group of metabolic diseases in which the person has high blood glucose (blood sugar), either because insulin production is inadequate, or because the body's cells do not respond properly to insulin, or both "DNA" polynucleotide formed from covalently linked deoxyribonucleotide units. It serves as the store of hereditary information within a cell and the carrier of this information from

generation to generation

"EIA" abbreviation of "enzyme immunoassay", an in vitro assay technique that utilizes an enzyme labeled antibody or antigen to detect and measure antibodies in your blood "endocrine" a system in human body consisting of glands that produce hormones that regulate metabolism, growth and development, tissue function, sexual function, reproduction, sleep, and mood, among other thing "EPC" abbreviation of "Engineering, Procurement and Construction", a form of contracting arrangement used in some industries where the EPC service provider is made responsible for all the activities from design, procurement, construction, to commissioning and handover of the project to the end user "gamma knife" an advanced radiation treatment for adults and children with small to medium brain tumors, abnormal blood vessel formations called arteriovenous malformations, epilepsy, trigeminal neuralgia, a nerve condition that causes chronic pain, and other neurological conditions "gamma ray" a form of electromagnetic radiation that can be used to treat cancer "genome" the totality of genetic information belonging to a cell or an organism "genome sequencing" the process of determining the complete DNA sequence of an organism's genome at a single time "gonad" a mixed gland that produces sex cells and sex hormones of an organism "Good Manufacturing Practice" guidelines and regulations issued to ensure that pharmaceutical or "GMP" products subject to those guidelines and regulations are consistently produced and controlled to the quality and standards appropriate for their intended use "helicobacter pylori" or "H. a gram-negative, microaerophilic bacterium usually found in the stomach pylori" "hepatitis" a symptom reflects inflammation of the liver tissue "hyperthyroidism" a condition in which the thyroid gland is overactive and makes excessive amounts of thyroid hormone "immunoassay" technique used to detect the presence or quantity of a substance (such as a protein) based on its capacity to act as an antigen

"in vitro" (Latin for "in glass") in an artificial environment rather than inside a living organism "infra-red spectrophotometer" a techniques that can be used to identify and study chemicals "irradiation" the process by which an object is exposed to radiation "isotope" a group of atoms with same number of protons (atomic number) but different number of neutrons "lymph node" an ovoid or kidney-shaped organ of the lymphatic system, and of the adaptive immune system, that is widely present throughout the body "metastatic cancers" a cancer that has spread from the part of the body where it started (the primary site) to other parts of the body "molecular diagnosis" a collection of techniques used to analyze biological markers in the genome and proteome — the individual's genetic code and how their cells express their genes as proteins — by applying molecular biology to medical testing "non-destructive testing" a wide group of analysis techniques used in science and technology industry to evaluate the properties of a material, component or system without causing damage "oncology" the study and treatment of cancer and tumors "peptide" linear polymer of amino acids connected by peptide bonds "PET" Positron Emission Tomography (正電子發射斷層成像術), a special camera used by nuclear physicians in the medical imaging diagnostic procedures. "pharmacokinetics" a branch of pharmacology dedicated to determining the metabolism of substances administered externally to a living organism "polymerase chain reaction" a technique for amplifying specific regions of DNA by the use of sequence-specific primers and multiple cycles of DNA synthesis, each cycle being followed by a brief heat treatment to separate complementary strands "radiation" the emission or transmission of energy in the form of waves and particles, most frequently used are X-rays, gamma rays and

electron beam

"radioactive source" a sample of a radionuclide, and emits ionizing radiation (one or more of gamma rays, alpha particles, beta particles, and neutron radiation) "radioisotope" a radioactive isotope, any of several species of the same chemical element with different masses whose nuclei are unstable and dissipate excess energy by spontaneously emitting radiation in the form of alpha, beta, and gamma rays. "radiopharmaceuticals" a group of pharmaceutical drugs which have radioactivity and can be used either for diagnostic or therapeutic purposes "radiosurgery" the process of destructing precisely selected areas of tissue using ionizing radiation which is usually used to treat cancer "radiotherapy" a common cancer treatment aiming to kill cells and shrink tumor with radiation "RIA" abbreviation of "radioimmunoassay", an in vitro assay technique used to measure the concentrations of antigens (for example, hormone levels in the blood) through the use of antibodies to those antigens "scintillation" the process of luminescence whereby light of a characteristic spectrum is emitted from a scintillator following the absorption of ionizing radiation "SPECT" Single Photon Emission Computed Tomography (單光子發射計算機斷層成像術), a special camera used by nuclear physicians in the medical imaging diagnostic procedures. "sterilization" a process of eliminate and remove microorganisms and spores, as well as prevents them from replicating "trace elements" a dietary element that is needed in very minute quantities for the proper growth, development, and physiology of the organism "TRFIA" abbreviation of "time-resolved fluorescent immunoassay", a type of in vitro assay technique "tumor" a tissue that possesses no physiological function and arises from uncontrolled, rapid, proliferation "UBT" abbreviation of "urea breath test", a diagnostic procedure used to identify infections by helicobacter pylori

## FORWARD-LOOKING STATEMENTS

This prospectus includes forward-looking statements. All statements other than statements of historical facts contained in this prospectus, including, without limitation, those regarding our future financial position, our strategy, plans, objectives, goals, targets and future developments in the markets where we participate or are seeking to participate, and any statements preceded by, followed by or that include the words "believe," "expect," "estimate," "predict," "aim," "intend," "will," "may," "plan," "consider," "anticipate," "seek," "should," "could," "would," "continue," or similar expressions or the negative thereof, are forward-looking statements. These forward-looking statements involve known and unknown risks, uncertainties and other factors, some of which are beyond our control, which may cause our actual results, performance or achievements, or industry results, to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. These forward-looking statements are based on numerous assumptions regarding our present and future business strategies and the environment in which we will operate in the future. Important factors that could cause our actual performance or achievements to differ materially from those in the forward-looking statements include, among others, the following:

- general political and economic conditions, including political and economic conditions relating to PRC;
- our ability to implement our business plans and strategies successfully;
- future developments, trends and conditions in the industry and markets in which we operate or intend to expand;
- our capital expenditure and operational plans;
- the actions and developments of our competitors;
- capital market developments;
- our dividend policy;
- any changes in the laws, rules and regulations of the central and local governments in the PRC and other relevant jurisdictions and the rules, regulations and policies of the relevant governmental authorities relating to all aspects of our business;
- changes or volatility in interest rates, foreign exchange rates, equity prices or other rates or prices, including changes or volatility relating to PRC and the industry and markets in which we operate;
- various business opportunities that we may pursue;
- macroeconomic measures taken by the PRC Government to manage economic growth;
   and
- the changes of the global economic conditions and the significant volatility of the global financial markets.

Additional factors that could cause actual performance or achievements to differ materially include, but are not limited to, those discussed in "Risk Factors" and elsewhere in this prospectus. We caution you not to place undue reliance on these forward-looking statements, which reflect our management's view only as of the date of this prospectus. We undertake no obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise. In light of these risks, uncertainties and assumptions, the forward-looking events discussed in this prospectus might not occur. All forward-looking statements contained in this prospectus are qualified by reference to the cautionary statements set out in this prospectus.

You should carefully consider all the information in this prospectus, including the risks and uncertainties described below, before making an investment in our H Shares. Our business, financial condition or results of operations could be materially and adversely affected by any of the risks described below. The trading price of our H Shares could decrease significantly due to any of these risks, and you may lose all or part of your investment. You should pay particular attention to the fact that most of our operations are conducted in China, which is governed by a legal and regulatory environment that may differ significantly from that of other countries. For more information concerning the PRC and certain related matters discussed below, see "Regulatory Environment." This prospectus also contains forward-looking statements that involve risks and uncertainties. Actual results of our Company and our Group could differ materially from those anticipated in these forward-looking statements as a result of certain factors, including the considerations described below and elsewhere in this prospectus.

We believe that there are certain risks involved in our operations, some of which are beyond our control. We have categorized these risks and uncertainties into: (i) risks relating to our business and industry; (ii) risks relating to the PRC; and (iii) risks relating to the Global Offering.

#### RISKS RELATING TO OUR BUSINESS AND INDUSTRY

Constant technological changes and continuous changing market preferences could materially and adversely affect our business, which require significant research and development efforts, and our investment in new products and services may not result in any commercially viable products and services.

In the fast-growing isotopes and irradiation technology industry, in particular, the industry of imaging diagnostic and therapeutic radiopharmaceuticals, the development of our business requires significant research and development efforts in response to constant technological changes. We may face increasing competition from technologies currently under development or which may be developed in the future. Future development or application of new or alternative technologies, services or national or industry standards could require significant changes to our business model, the provision of additional services, the development of new products and substantial new investments by us. New products and services may be expensive to develop and may result in the introduction of additional competitors into the marketplace. Some of the competitors may develop and use more advanced technologies and cutting-edge equipment. If we fail to respond timely to the changes in the industry and our customers' needs, we may invest heavily in research and development of products and services that do not lead to significant revenue. We cannot accurately predict how emerging and future technological changes will affect our operations or the competitiveness of our products and services. There is no assurance that our technologies will not become obsolete or be subject to competition from new technologies in the future or that we will be able to acquire new technologies on reasonable terms necessary to compete in evolving circumstances.

Market participants in the isotopes and irradiation technology industry may progressively develop and market new and advanced products and services to adapt to changing market preferences and technologies. As a result, our future growth is dependent upon our ability to develop and launch new products and services that meet market demand, and any delays in our service and product launches may significantly impede our ability to compete. We have devoted substantial resources to our research and development activities to improve our ability to cater to market demands. For the years ended December 31, 2015, 2016 and 2017, our research and development expense (excluding

amortization cost) amounted to RMB44.6 million, RMB58.7 million and RMB73.5 million, respectively. Moreover, we will utilize net proceeds from the Global Offering in the research and development of various radiopharmaceuticals. However, we cannot guarantee that our existing products and services will be upgraded through our ongoing research and development activities or that our research and development activities will always keep pace with market demand and technological advances or yield the anticipated results. Furthermore, development and production of new products and services may require substantial capital investment. The development process of our products in general, particularly the radiopharmaceuticals, is time-consuming and costly, and there can be no assurance that our research and development activities will enable us to successfully develop new radiopharmaceuticals. Since relatively few research and development programs in the radiopharmaceuticals industry produce a commercially viable product, a product candidate that appears promising in the early phases of development may fail to reach the market for a number of reasons, such as:

- the failure to demonstrate safety and efficacy in preclinical and clinical trials;
- the failure to obtain approvals for its intended indications from relevant regulatory bodies, such as the CFDA; and
- our inability to manufacture and commercialize sufficient quantities of the product economically.

The entire development process of new radiopharmaceutical may take years before a new product is commercially launched. We cannot assure you that our product and service research and development projects can be completed within the anticipated time frame, and our research and development efforts may not lead to new products and services that are commercially successful. We may also experience delays or be unsuccessful in any stage of service or product research and development, production or launch. If such events occur, our business, operating results and financial condition could be materially and adversely affected.

# We may fail to achieve widespread market acceptance due to competition in the PRC isotopes and irradiation technology markets.

We face competition from other local and overseas suppliers providing products and services with similar indications which can be substituted for our products and services. Our competitors may have more extensive sales and marketing resources and greater technical, research and development and manufacturing resources than us, and multinational suppliers of isotopes and irradiation technology products may have more extensive capital, greater brand recognition and larger customer bases.

Our sales volumes and revenues could be adversely affected by increased competition in the PRC isotopes and irradiation technology markets if:

- our competitors adopt new technologies and launch products with higher efficiency;
- our competitors lower their production and marketing costs which results in a decrease in their product prices;
- product prices drop due to an oversupply of the products;

- our competitors adapt to changing market demand more quickly than us or commercialize new products and technologies, obtain patent protection or regulatory clearance faster than us; or
- the increase in the number of manufacturers of substitute or similar products.

If our competitors' substitute products gain wider market acceptance than any of our isotopes and irradiation technology products and services, our sales volume, financial condition and business prospects may be materially and adversely affected.

# If our promoters fail to effectively market and promote our pharmaceuticals, we may not be able to effectively penetrate the market in China, and our future business growth may be materially and adversely affected.

We rely on promoters to market and promote our iodine-125 sealed source, the majority of strontium-89 chloride injection and UBT kits. As of December 31, 2017, we engaged more than 150 promoters. Revenue generated from the sale of our products through marketing and promotion service of promoters during the same periods were RMB960.6 million, RMB1,121.9 million and RMB1,322.7 million, accounting for 54.2%, 56.9% and 58.7% of our revenue of pharmaceuticals segment, respectively. If we fail to expand or effectively manage our promoters network, we may be unable to extend our coverage and increase our market penetration as contemplated by our strategies, or enjoy the benefits of operational flexibility and resource allocation as expected or desired.

We have relatively limited control over promoters and some of them may fail to effectively promote our products, which may cause an adverse effect on sales of the related products and our brand reputation. Moreover, our agreements with our promoters are typically for a fixed period. Our promoters may elect not to renew their promotion agreements with us or otherwise to terminate their business relationships with us for a number of reasons, many of which are beyond our control. In the event that our promoters fail to effectively promote our products or terminate their business relationship with us, there can be no assurance that we will be able to enter into similar relationships with other promoters in time, or at all. As a result, our sales for the relevant products in the market, especially the penetration rate of these products and our business growth, could be materially and adversely affected.

# We depend on a stable and adequate supply of quality raw materials and products from our suppliers.

Due to the uniqueness of our business, it is common for us to purchase certain raw materials and components necessary for our products from limited suppliers, or large quantities of product from an individual supplier, and as a result, it may not be able to establish, whether due to cost, regulatory and other business considerations, in a timely manner or at all, additional or replacement sources for certain components or materials in the event an existing supplier becomes unavailable or is unable to continue to supply to us as expected. Furthermore, we are exposed to certain risks relating to jurisdictions where our certain raw materials suppliers are located such as Russia and South Africa, including political risks, such as civil unrest, acts of terrorism, war, coups, civil war, local or global political or military tensions, diplomatic relations tensions or changes. Any of these could result in production delays, increased costs, or inability to continue to manufacture key products, which could have a material adverse effect on our business, financial condition or results of operations.

For example, we rely on overseas radioisotopes manufactures for the supply of raw radioisotopes for our imaging diagnostic and therapeutic radiopharmaceuticals. In addition, we rely on one supplier for the supply of carbon-13 urea, and rely on overseas manufactures for the supply of raw cobalt-60 for medical applications to manufacture medical radioactive source products. If any of these major suppliers suffers a decrease in supply, or declines to renew supply contracts with us in the future, or fails to meet any of our customers' requirements, and we are unable to find a replacement supplier, this could have a material adverse effect on our business, financial condition or results of operations.

For the years ended December 31, 2015, 2016 and 2017, our costs of raw materials accounted for approximately 44.3%, 48.0% and 47.2%, respectively, of our total costs of sales. In the event of significant price increases for such raw materials, we may have to pass the increased raw materials costs onto our customers. However, we cannot assure you that we will be able to raise the prices of our products and services to the extent of such increase or overcome the interruption of a sufficient supply of qualified raw materials for our products. As a result, any significant price increase in our raw materials may have a material adverse effect on our profitability.

We believe that we have established long and stable relationships with our existing third-party suppliers. However, we cannot assure you that we will be able to secure a stable supply of raw materials and outsourced services. Our suppliers may reduce or cease their supply of raw materials, products and services to us at any time in the future. In addition, we cannot assure you that our suppliers have obtained and will be able to renew all licenses, permits and approvals necessary for their operations or comply with all applicable laws and regulations, and failure to do so by them may lead to interruption in their business operation, which in turn may result in shortage of raw materials, products and services supplied to us. If the supply of raw materials, products and services are interrupted, our production processes would be delayed. If any such event occurs, our operation and financial position may be materially and adversely affected.

# We have not maintained insurance for our fixed assets and product responsibility to provide coverage for ordinary risks associated with our major business.

We have not maintained insurance for our fixed assets and product responsibility to provide coverage for ordinary risks associated with our major business. As we do not have insurance available to pay liabilities or losses associated with our operations, our profitability may be materially and adversely impacted. Moreover, we do not carry any insurance for business interruption or loss of profit arising from accidents at any of our manufacturing facilities or other disruptions of our operations such as demonstrations and protests by residents living in close proximity to our production facilities. Accidents or natural disasters may also result in significant property damage, disruption of our operations and personal injuries or fatalities. In the event of an uninsured loss, we could suffer damage to our reputation and/or lose all or a portion of our production capacity as well as future revenue expected to be generated by the relevant production facilities. Any material loss could materially and adversely affect our business, financial condition and results of operations.

#### Our expansion of the production facilities may not be as successful as we have planned.

To meet the increasing demand for our imaging diagnostic and therapeutic radiopharmaceuticals and UBT kits and analyzers, we are and intend to continue to invest in our production facilities for these products. We plan to build two new modern manufacturing and research and development bases in order to enhance our development and manufacturing capabilities and to

meet the requirements for standardized and large-scale operation for our radiopharmaceuticals for diagnostic imaging and therapeutic uses. Furthermore, we also intend to establish 26 new manufacturing subsidiaries to produce and distribute technetium-99m labeled injections and fluorine-18-FDG injection.

The construction and completion of these new production facilities involve regulatory approvals and reviews by various authorities in the PRC, including but not limited to, urban planning, construction and environmental protection authorities. For these new production facilities, we cannot assure you that we will be able to obtain all of the required approvals, permits and licenses. Construction of the new production facilities also may not be completed according to the anticipated timetable or within the agreed budget. We may also be unable to fully utilize the production capacity of such new production facilities after they commence operations. Any inability or material delay in commencing operations at these production facilities, or any substantial increase in costs to complete the production facilities or improve operations and utilization, could materially and adversely affect our results of operations and prospects and result in loss of business opportunities.

# If our products are not produced to the necessary quality standards, our business and reputation could be harmed, and our revenue and profitability could be materially and adversely affected.

Our products and manufacturing processes are required to meet certain quality standards. We have maintained a quality control management system and standard operating procedures in compliance with GMP standard to help prevent quality issues in respect of our products. See "Business — Quality Control" in this prospectus for further details of our quality control management system and standard operating procedures. Despite our quality control system and procedures, we cannot eliminate the risk of errors, defects or failure. Quality defects may not be detected or cured as a result of a number of factors, many of which are outside our control, including:

- manufacturing errors;
- technical or mechanical malfunctions in the manufacture process;
- human error or malfeasance by our quality control personnel;
- tampering by third parties; and
- quality issues with the raw materials we purchase or produce.

In addition, when we expand our manufacturing capacity in the future, we may not be able to ensure consistent quality between the products manufactured in our existing and new facilities, or need to incur substantial costs for doing so. Furthermore, if we acquire other isotopes and irradiation technology companies, we may not be able to immediately ensure that their manufacturing facilities and processes will meet our own quality standards.

Failure to detect quality defects in our products or to prevent such defective products from being delivered to end-users could result in patient injury, product recalls or withdrawals, license revocation or regulatory fines, product liabilities or other problems that could seriously harm our reputation and business, expose us to liability, and materially and adversely affect our revenue and profitability.

# If our products cause, or are perceived to cause, severe side effects, our revenue and profitability could be adversely affected.

Our products may cause undesirable or unintended side effects as a result of a number of factors, many of which are outside our control. These factors include potential side effects not revealed in clinical testing, unusual but severe side effects in isolated cases, defective products not detected by our quality management system or misuse of our products by end-users. Our products may also be perceived to cause severe side effects when a conclusive determination as to the cause of the severe side effects is not obtained or is unobtainable.

In addition, our products may be perceived to cause severe side effects if products by other isotopes and irradiation technology companies which contain the same or similar radioactive ingredients or raw materials, or utilizes the same or similar intake approaches as our products cause or are perceived to have caused severe side effects, or if one or more regulators, including the CFDA, the FDA or an international institution, such as the WHO, determines that products containing the same or similar radioactive ingredients as our products could cause or lead to severe side effects.

If our products cause, or are perceived to cause, severe side effects, we may face a number of consequences, including:

- injury of patients;
- a severe decrease in the demand for, and sales of, the relevant products;
- the recall or withdrawal of the relevant products;
- revocation of regulatory approvals for the relevant products or the relevant production facilities;
- damage to the brand name of our products and the reputation of our Group; and
- exposure to lawsuits and regulatory investigations relating to the relevant products that may result in liabilities, fines or penalties.

As a result of these consequences, our sales and profitability could be materially and adversely affected.

# Any operational failure or disruption at our production facilities could have a material adverse effect on our cashflows, competitive position, financial condition or results of operations.

We are subject to potential operational failure at our production facilities caused by accidents occurring during the operating process, including but not limited to, faulty construction and operator error. We have limited alternative facilities for its production because it is required to meet the licensing requirements for both its facilities that handle and store radioactive materials during the production process and its specialized equipment. The vast majority of our revenue is generated from the sale of products manufactured at our production facilities.

Any interruption in, or prolonged suspension of, any part of production at, or any damage to or destruction of, any of our production facilities arising from unexpected or catastrophic events or otherwise may prevent us from supplying products and services to our customers, which in turn may result in a material adverse effect on our business and operations. There is also a risk of injury or damage to persons, the property of others or the environment, which in turn could lead to considerable financial costs and may also have legal consequences. Consequently, our business, financial condition and results of operations may be materially and adversely affected by such an occurrence.

Any event, including a labor dispute with unionized employees, weather or other acts of nature, pandemics or other public health crisis, fire, floods, power outages, threats to physical security, information technology or cyber-attacks or failures, accidents, regulatory, political, health or other issues that result in a prolonged business disruption or shutdown to one or more of our facilities, or the facilities of our suppliers, could create conditions that prevent, or significantly and adversely affect, our Company from receiving, processing, manufacturing, or shipping products at previous levels, or at all. Due to the stringent regulations and requirements we are subject to regarding our production, and the complexities involved with manufacturing our products, we may not be able to quickly establish additional or replacement sources for our materials and/or our production facilities. Such events could materially and adversely affect our sales, increase our expenses, create potential liabilities and/or damage our reputation, any of which could have a material adverse effect on our cash flow, competitive position, financial condition or results of operations.

In addition, any breakdown or suspension of production or failure to supply our products and services to our customers in a timely manner may result in breach of contract and loss of sales, as well as exposure to liability under the relevant agreements, lawsuits and damage to our reputation, which could have a material and adverse effect on our business, financial condition and results of operations.

# We may fail to realize the anticipated benefits of acquisitions that we have made or intend to make.

One of our business strategies is to expand our business operations through selective acquisitions. Expansion through acquisitions involves many risks and uncertainties, including:

- inability to identify all suitable acquisition targets or compete for attractive acquisition targets;
- difficulties in obtaining financing required to fund our acquisitions;
- failure to complete acquisitions under commercially acceptable terms;
- inability to timely secure necessary governmental approvals, third party consents or land use rights, which may result in liabilities, fines or penalties arising from such inability;
- difficulties in effectively managing a larger and growing business, operating in new geographic regions and optimizing the allocation of resources and operational efficiency;
- potential ongoing financial obligations and unforeseen, hidden or latent liabilities of our acquisition targets and other risks unidentified before the acquisitions;
- failure to promptly and effectively coordinate our businesses with that of the acquisition targets, which may materially and adversely affect our ability to generate sufficient revenue to recover the acquisition costs, and to achieve synergies and other intended objectives;
- failure to effectively integrate research and development functions, standardize information technology systems, identify and eliminate redundant and underperforming operations and assets, conform standards, controls, procedures and accounting and other policies; and
- managing costs or inefficiencies associated with the consolidation of the combined operations, and the poor performance of the acquired businesses that leads to potential impairment costs.

In addition, we may seek and pursue opportunities via joint ventures or strategic alliances for expansion from time to time, and we may face similar risks and uncertainties as listed above. Failure to properly address these risks and uncertainties may materially and adversely affect our ability to carry out acquisitions and other expansion plans, integrate and consolidate newly-acquired or newly-formed businesses and realize all or any of the anticipated benefits of such expansion, which may have a material adverse effect on our business, financial condition, results of operations and prospects.

If we fail to maintain an effective distribution network for our certain products in pharmaceuticals segment or manage the activities of our distributors, our business could be materially and adversely affected.

As of December 31, 2017, we had a network of more than 440 distributors in China. We primarily sell our UBT analyzers and in vitro immunoassay diagnostic reagents (other than RIA kits) through our distributors. We also sell a small volume of sodium iodine-131 oral solution and carbon-13 Capsule UBT kits through distributors. Our sales to them represented 3.4%, 4.1% and 3.9% of our revenue of pharmaceuticals segment for the years ended December 31, 2015, 2016 and 2017, respectively. We expect we will continue to sell our UBT analyzers, in vitro immunoassay diagnostic reagents (other than RIA kits) and a small volume of sodium iodine-131 oral solution and carbon-13 Capsule UBT kits through distributors in the future. Our business growth could be affected by our ability to maintain and manage a distribution network that timely delivers our products. However, our distributors may not distribute our products in the manner that we expect, which thus may impair the effectiveness of our distribution network.

In addition, we generally do not enter into long-term distribution agreements, and we cannot assure you that we will be able to renew such agreements with our preferred distributors on terms favorable to us or at all when our existing distribution agreements expire. In the event that a significant number of our distributors terminate their relationships with us, or if we are otherwise unable to maintain and expand our distribution network effectively, our sales volumes and business prospects could be adversely affected.

We have limited ability to manage the activities of our distributors, who are independent from us. Our distributors could take actions, including one or more of the following, which could have an adverse effect on our business, prospects and brand name:

- fail to meet the sales targets for our products in accordance with the relevant distribution agreements;
- sell products that compete with our products;
- sell our products outside their designated territories;
- fail to maintain the requisite licenses or otherwise fail to comply with applicable regulatory requirements when selling our products;
- breach on the exclusivity clause; or
- violate anti-corruption and other applicable laws in China.

Any of the events mentioned above could have a material adverse effect on our business, financial condition, results of operations and prospects.

Substantial reductions in purchases by or delays in collecting receivables from our customers, particularly those of our pharmaceuticals business, could have a material adverse effect on our business, financial condition and results of operations.

Our customers of pharmaceuticals primarily include hospitals, other medical institutions and distributors. We cannot assure you that these customers will continue to maintain relationships with us or that they will continue to purchase our products at similar volumes or prices, or at all. In addition, our pharmaceuticals customers may experience deterioration in their financial position, such as bankruptcy, insolvency or general liquidity problems, which may materially and adversely affect their ability to conduct business with us. Moreover, any slowdown in the growth of the PRC economy, and any corresponding effects on the levels of healthcare spending, may cause customers to reduce, modify, delay or cancel plans to purchase our products.

Most of our sales are conducted in RMB and normally settled by bank remittances. For our pharmaceuticals segment, the payment collection time is generally one year for hospital and other medical institution customers. To the extent that the revenue recognized under a sales contract has not been received, we record it as trade receivables. During the Track Record Period, some of our customers delayed their payments beyond one year. As of December 31, 2017, we had in aggregate trade and bill receivables after deduction of allowance for doubtful debts of RMB1,507.2 million, of which RMB1,352.6 million had been outstanding within one year from the invoice date, RMB218.2 million had been outstanding for one to two years from the invoice date, RMB22.5 million had been outstanding for two to three years from the invoice date and RMB13.9 million had been outstanding for over three years from the invoice date. Of our total trade and bill receivables, we had carrying amounts of RMB993.3 million, RMB1,148.3 million and RMB1,408.4 million as of December 31, 2015, 2016 and 2017, respectively, which are past due but are regarded as not impaired. See "Financial Information — Liquidity and Capital Resources — Trade and Bill Receivables" and Note 20 to "Appendix I — Accountants' Report" in this prospectus.

As of December 31, 2017, our allowance for doubtful debts of trade and bill receivables amounted to RMB114.2 million, or 7.6% of total trade and bill receivables. We cannot assure you that our past provisioning practice will not change in the future or that our provision levels will be sufficient to cover defaults in our trade receivables. Our liquidity and cash flow from operations may be materially and adversely affected if our receivable cycles or collection periods, particularly those in respect of our pharmaceuticals business, are further lengthened or if we encounter a material increase in defaults of payment or an increase in provisions for impairment of our receivables from customers, particularly those in respect of our pharmaceuticals business. Should these events occur, we may be required to obtain working capital from other sources, such as third-party financing, in order to maintain our daily operations, and such financing may not be available on commercially acceptable terms, or at all.

We may not be able to efficiently manage inventory at optimal levels, which could have an adverse effect on our business, results of operations, financial condition and prospects.

Maintaining an optimal level of inventory is critical to the success of our business. We had inventory balance, net of write-down of inventories, were RMB188.0 million, RMB225.7 million and RMB263.0 million as of December 31, 2015, 2016 and 2017, respectively, and our inventory turnover days were 100.6 days, 108.4 days and 113.3 days, respectively. The nature of our business requires us to carry raw materials of different types to satisfy demand from customers and facilitate our production in a short time period. Moreover, we generally estimate demand for our products, in particular, our

radiopharmaceutical products, ahead of production and the actual time of sale. We cannot assure you that we can accurately predict these trends and events and avoid under-stocking or over-stocking inventory. Further, we cannot assure you that our inventory management measures will be implemented effectively so that we will not have significant levels of obsolete or excessive inventories. In the event that there is a sudden decrease in the market demand for our products or in the event that our new products do not successfully meet customer demand, we may experience slow movement of our inventories. We may not be able to utilize or sell our inventories swiftly, and may face the risk of inventory obsolescence. The slow movement of our inventories may in turn lead to an increase in our inventory level and thus an increase in our inventory carrying costs or provision for impairment of inventory. Increased inventories may adversely affect our pricing strategies, and we may be forced to rely on markdowns or promotional activities to dispose of unsold items, which in turn may adversely affect our financial condition and results of operations. If we fail to manage our inventory at an optimal level, our business, results of operations, financial condition and prospects may be adversely affected.

# We are uncertain about the recoverability of our deferred tax assets, which may affect our financial positions in the future.

As of December 31, 2015, 2016 and 2017, our deferred tax assets amounted to RMB109.4 million, RMB121.0 million and RMB155.5 million, respectively, which represent the allowance for impairment losses of certain accounts receivables and unused tax losses from our group. For details of the movements of our deferred tax assets during the Track Record Period, please see Note 28 to "Appendix I — Accountants' Report" in this prospectus. Deferred tax assets are recognized to the extent that it is probable that future taxable profit will be available against which the deductible temporary differences can be utilized. This requires significant judgment on the tax treatments of certain transactions and also assessment on the probability that adequate future taxable profits will be available for the deferred tax assets to be recovered. In this context, we cannot guarantee the recoverability or predict the movement of our deferred tax assets, and to what extent they may affect our financial positions in the future.

# Our failure to obtain or renew certain approvals, licenses, permits and certificates required for our business may materially and adversely affect our business, financial condition and results of operations.

Pursuant to relevant PRC laws, regulations and rules, we are required to obtain, maintain and renew various permits, licenses and certificates in order to produce, and sell our pharmaceuticals. These permits, licenses and certificates include, without limitation, pharmaceuticals production permit (藥品生產許可證), radiopharmaceuticals production permit (放射性藥品生產許可證), pharmaceuticals sale permit (藥品經營許可證), radiopharmaceuticals sale permit (放射性藥品經營許可證), medical device production permit (醫療器械生產許可證), medical device sales permit (醫療器械經營許可證), pharmaceuticals registration certificates (藥品注冊證) and medical device registration certificate (醫療器械注冊證) required for our business operations. Each such permit and certificate has a specified term and is subject to periodical renewal. Should we fail to renew any of our permits or certificates, we may be forced to cease our production of the relevant products, which may in turn materially and adversely affect our financial condition and business prospects.

In addition, some of these approvals, permits, licenses and certificates are subject to periodic renewal and/or reassessment by the relevant authorities, and the standards of such renewal and/or reassessment may change from time to time. Although we intend to apply for the renewal and/or

reassessment of these approvals, permits, licenses and certificates when required by applicable laws and regulations, there can be no assurance that we will successfully procure such renewals and/or reassessment. Any failure by us to obtain the necessary renewals and/or reassessment and otherwise maintain all approvals, licenses, permits and certificates necessary to carry out our business at any time could severely disrupt our business and prevent us from continuing to carry out our business, which could have a material adverse effect on our business, financial condition and results of operations.

Furthermore, if the interpretation or implementation of existing laws and regulations changes or new regulations come into effect requiring us to obtain any additional approvals, permits, licenses or certificates that were previously not required to operate our existing businesses, we cannot assure you that we will successfully obtain such approvals, permits, licenses or certificates. Our failure to obtain the additional approvals, permits, licenses or certificates may restrict the conduct of our business, decrease our revenue and/or increase our costs, which could materially and adversely reduce our profitability and prospects.

# We may from time to time become party to litigation, other legal disputes and proceedings that may materially and adversely affect us.

In the course of our ordinary business operations, we may become a party to litigation, legal proceedings, claims, disputes or arbitration proceedings from time to time. Any ongoing litigation, legal proceedings, claims, disputes or arbitration proceedings may distract our senior management's attention and consume our time and other resources. In addition, even if we ultimately succeed in such litigation, legal proceedings, claims, disputes or arbitration proceedings, which may attract negative publicity and may materially and adversely affect our reputation and brand names. In the case of an adverse verdict, we may be required to pay significant monetary damages, assume significant liabilities or suspend or terminate parts of our operations. As a result, our business, financial condition, results of operations and prospects may be materially and adversely affected. For example, we had a legal proceeding in relation to a shareholding dispute that was brought against us by certain individual shareholders of Huakang Radiation during the Track Record Period. See "Business — Legal Proceedings" for details.

# Any failure to protect our intellectual property rights could harm our business and competitive position.

Our future success depends in part upon our proprietary technology. We consider that our trademarks, patents, copyright of computer software, trade secrets, know-how, domain names and similar intellectual property rights are critical to our success. As of the Latest Practicable Date, we had 28 registered trademarks, 207 registered patents and 25 registered copyright of computer software in China, which are material to our business. As of the Latest Practicable Date, we had submitted more than 60 patent applications. We cannot assure you that any of the above patent applications will ultimately proceed to registration or will result in registration within the applied scope of patent. Some of our pending applications may be successfully challenged or invalidated by others. It is also possible that any patents, trademarks copyright of computer software or domain names registered by us may be invalidated, circumvented or challenged. There can be no assurance that such proprietary rights or pending applications will provide us with competitive advantages or adequately safeguard our proprietary rights. In the event that our intellectual property rights applications were not approved by the relevant authorities, we can continue to apply these intellectual property in our production process, but we would not be able to prevent others from developing, applying for registration of, or providing

products and services by using the same intellectual property. If our proprietary right applications are not successful, we may have to employ different technology or terminate the production of the affected products, or seek to enter into arrangements with any third parties who may have prior registrations, applications or rights, which might not be available on commercially reasonable terms, if at all. In the event of any successful registration by other parties of any identical invention intellectual property rights applications filed prior to our relevant applications, we may not be able to practice the relevant invention in our commercial production, which could have a negative impact on our business, results of operations and financial condition to some extent. In addition, third parties may independently uncover trade secrets and proprietary information, limiting our ability to assert any trade secret rights against such parties, which could negatively affect our business operations.

In addition, our design and production processes involve usage of proprietary trade secrets, know-how and other similar intellectual property rights, which may be susceptible to infringement by third parties. Given the development history of our Company, a substantial amount of our intellectual property rights are protected as proprietary rights, rather than patents, as a result of which we may lose our core proprietary rights and in turn cease to supply certain of our products and services when relevant core technical personnel leave our Group. As of the Latest Practicable Date, the employment contracts entered into with the employees of certain subsidiaries do not have non-disclosure clauses. For the non-disclosure clauses in the employment contracts, we cannot assure you that the non-disclosure clauses in our employment contracts are enforceable under PRC law or are adequate to protect our proprietary rights and know-how. In addition, we cannot assure you that these non-disclosure clauses will not be breached. In the event that such breach occurs, we may suffer financial and reputational damage or penalties because of the unauthorized disclosure of confidential information belonging to us or to the parties we collaborated with, customers or suppliers. If any these events occur, our business, results of operation and financial condition may be materially and adversely affected.

Our primary operating locations handle and store hazardous and radioactive materials. If our products and services are produced improperly or contaminated, our reputation, business, financial condition and results of operation may be materially and adversely affected. Meanwhile, we are also subject to regulations that govern the handling of hazardous substances.

We are subject to the PRC national and local laws and regulations that govern the handling, transportation, production, use, storage, disposal and sale of certain hazardous and potentially hazardous substances used in connection with our operations and products. Some risk of environmental and property damage and environmental liabilities, including potential clean-up liability relating to currently or formerly owned or operated sites or third-party disposal sites and liabilities relating to the exposure to hazardous substances, is inherent in our operations and the products and services we produce, provide, sell or distribute. Any failure by us to comply with the applicable government regulations could also result in product recalls or impositions of significant fines and restrictions on our ability to carry on or expand a portion or possibly all of our operations. If we fail to comply with any or all of these regulations, we may be subject to fines or penalties, have to recall products and/or cease their production and distribution, which would increase our costs and reduce our sales. Our facilities handle and store radioactive materials and radioactive production equipment. The regular usage of our production facilities of imaging diagnostic and therapeutic radiopharmaceuticals and radioactive source products involves disposal of waste gas, waste water and waste residues. A significant release of radioactivity, which could result from, among other things, a natural disaster, an accident, equipment failure, human error, an act of terrorism or a transportation accident, could result in employees and/or

the public being exposed to radiation. Furthermore, failure or damage to our shipping containers used to ship material to and from our site could also result in a release of radioactivity.

In addition, we are exposed to risks inherent in the production, packaging, sale and marketing of our products and services, such as unsafe, ineffective, defective or contaminated products and services, improper filling of products and services, insufficient or improper labeling of products and services. If any of these happens, we may be subject to product recall or withdrawal, removal of regulatory approvals for such products and services or the relevant production facilities and exposure to lawsuits relating to such products and services.

Our operations pose the risk of accidental contamination or injury caused by the use of hazardous materials and/or the creation of hazardous substances, including radioactive substances and other highly regulated substances. In the event of such an accident, we could be held liable for damages and clean-up costs which could harm our business. In addition, other adverse effects could result from such liability, including reputational damage resulting in the loss of additional business from certain customers. In addition, if our suppliers of such hazardous materials and substances are found by government authorities to have operated their business without requisite approvals, licenses or permits or otherwise to be in violation of applicable laws and regulations, they may be ordered to take rectification actions or cease operations. Any of these actions may have a material adverse effect on our business and impose additional costs on us.

If our internal risk management and control system is not adequate or effective, and if it fails to detect potential risks in our business as intended, our business, financial condition and results of operations could be materially and adversely affected.

We have established our internal control system such as an organizational framework, policies and procedures that are designed to monitor and control potential risk areas relevant to our business operations. In connection with the Global Offering, we have examined our internal control system, and made certain enhancements where appropriate, so that it would satisfy our internal control requirements after the completion of the Global Offering. However, due to the inherent limitations in the design and implementation of our internal control system, our internal control system may not be sufficiently effective in identifying, managing and preventing all risks if external circumstances change substantially or extraordinary events take place.

Furthermore, integration of various business operations from our future acquisitions may give rise to additional internal control risks that are currently unknown to us, despite our efforts to anticipate such issues. If our internal control system fails to detect potential risks in our business as intended or is otherwise exposed to weaknesses and deficiencies, our business, financial condition and results of operations could be materially and adversely affected.

Our risk management and internal controls also depend on effective implementation by our employees. There can be no assurance that such implementation by our employees will always function as intended or such implementation will not involve any human errors, mistakes or intentional misconduct. If we fail to implement our policies and procedures in a timely manner, or fail to identify risks that affect our business with sufficient time to plan for contingencies for such events, our business, financial condition and results of operations could be materially and adversely affected, particularly with respect to the maintenance of our relevant approvals and licenses granted by governments.

# If we experience a significant disruption in our information technology systems or if we fail to implement new systems and software successfully, our business could be adversely affected.

We depend on information systems to effectively manage order entry, order fulfillment, accounting and financial functions, and payment data. Any system damage or failure that interrupts data input, retrieval or transmission or increased service time could disrupt our normal operations. There can be no assurances that we will be able to effectively handle a failure of our information systems or that we will be able to restore our operational capacity in a timely manner to avoid disruptions to our business. In addition, if the capacity of our information systems fails to meet the increasing needs of our expanding operations, our ability to expand may be constrained. The occurrence of any of these events could adversely affect our ability to effectively manage our business operations.

# We are required to comply with various environmental, health and safety laws and regulations in China, which may increase our cost of compliance.

We are required to comply with the applicable environmental protection, health and safety laws and regulations in the PRC. Any failure to meet the relevant standards and requirements for production safety and labor safety could subject us to warnings from the relevant regulatory authorities and governmental orders to rectify such non-compliance within a specified period of time and fines by the relevant regulatory authorities. We may also be required to suspend our production temporarily or cease our operations permanently for significant non-compliance, which may have a material adverse effect on our reputation, business, financial condition and results of operations. During the Track Record Period, we were involved in certain incidents of non-compliance with applicable environmental protection laws and regulations, including non-compliance with regulations relating to the transportation of radiopharmaceuticals, in the PRC.

Given the number and complexity of these laws and regulations, compliance with them may be difficult or involve significant financial and other resources to establish efficient compliance and monitoring systems. In addition, these laws and regulations are constantly evolving. There can be no assurance that the PRC government will not impose additional or more stringent laws or regulations, the compliance with which may cause us to incur significant costs that we may be unable to pass on to our customers and may take significant time, which may affect or interrupt our operations.

# We depend on key management personnel and professional technicians, and if we are unable to recruit, hire and retain skilled and experienced personnel, our ability to effectively manage our operations and meet our strategic objectives could be harmed.

Our success is built substantially upon the continuous efforts and service of our experienced management team and specialized technical personnel. Our key management include but not limited to Mr. Wu Jian, Dr. Du Jin and Mr. Fan Guomin. Mr. Wu Jian, our executive director and general manager, has more than 30 years of experience in the isotopes and irradiation technology industries in China. Mr. Wu is responsible for the overall daily management of our business operations. Dr. Du Jin, our executive director and chief engineer, has more than 30 years of experience in the isotopes and irradiation technology industries in China. Dr. Du is in charge of the research and development of new products and new technologies in our Group. Mr. Fan Guomin, our deputy general manager, has more than 20 years of experience in the isotopes and irradiation technology industries in China. Mr. Fan oversees the safety and quality management of our Group. There can be no assurance that we will be able to retain our key management personnel or technical staff. If any of our key management

personnel stops working in his or her present position, or if any of them fails to perform their obligations under their employment agreements, we may not be able to find a suitable replacement. In addition, since the design, manufacturing and inspection of our radiopharmaceuticals and radioactive source products are very complicated, we are greatly dependent on the specialized services provided by our operation teams which have been specially trained for a long time, especially the operation team in key functions. If we fail to retain our senior management or operation team, our business may be adversely affected. Our future growth and success will also depend to a large extent on our ability to retain or recruit suitable and qualified individuals to strengthen our management, operational, technical and research teams. There can be no assurance that we will be able to cultivate, recruit and retain the key personnel that we need to achieve our business objectives, and if we are unable to do so it may lead to material adverse impact on our business, financial condition and results of operations.

Our future success depends, in large part, on the continued service of our key managerial, research and development, sales and technical personnel. We rely on our senior management to operate and grow our business. See "Directors, Supervisors and Senior Management" in this prospectus. Any loss or interruption of the services of any of our senior management or key personnel could reduce our ability to effectively manage our operations and meet our strategic objectives because we cannot assure you that we would be able to locate suitable or qualified replacements in a timely manner. In particular, the industry experience, management expertise and contributions of our senior management are crucial to our success. If we lose the services of any of our senior management, we may be unable to recruit a suitable or qualified replacement and may incur additional expense to recruit and train new personnel, which could disrupt our business and growth.

Furthermore, as we expect to continue to expand our operations and develop new products and services, we will need to continue attracting and retaining experienced management and key personnel. Competition for skilled and experienced personnel in the PRC industry relating to isotopes and irradiation technology applications is intense, and the availability of suitable and qualified candidates in China is limited. We compete for such personnel with other suppliers, academic institutions, government entities and other organizations, and we expect such competition to intensify as the PRC industry grows. We may be unable to attract or retain the personnel required to achieve our business objectives and failure to do so could materially and adversely impact our competitiveness, business, financial condition and results of operation.

Our failure to comply with anti-corruption laws in China could result in penalties which could harm our reputation and have a material adverse effect on our business, financial condition or results of operations; and if our employees, customers or other intermediaries including our distributors or promoters, engage in any illegal activities, it could also harm our reputation and expose us to regulatory investigations, costs and liabilities.

We operate in the PRC isotope and irradiation technology industry and supply our products and services primarily to hospitals and other medical institutions in China. We are subject to anticorruption laws of China which generally prohibit companies and intermediaries from making improper payments to public officials and industry players for the purpose of obtaining or retaining business and/or other benefits, along with various other anti-corruption laws. In particular, pursuant to the Provisions on the Establishment of Commercial Bribery Records in the Purchase and Sale of Drugs (《關於建立醫藥購銷領域商業賄賂不良記錄的規定》), if we are involved in criminal, investigational or administrative proceedings for commercial bribery, we will be added to the blacklist of commercial bribery by the relevant government authorities, as a result of which (i) our products cannot be

purchased by public medical institutions or medical and health institutions financed by government funds in local provinces for two years and (ii) points may be deducted against us by public medical institutions and medical and health institutions financed by government funds in other regions at the provincial level during the bidding and procurement process for a period of two years; and if we are blacklisted for commercial bribery twice within five years, we will be prohibited from selling our products to public medical institutions or medical and health institutions financed by government funds throughout China for two years. See "Regulatory Environment — The Regulatory System concerning the Centralized Procurement and Sales of Drugs and Medical Devices — The Mechanism of Commercial Bribery Records in the Field of Drug Sales" for further details of the relevant PRC regulations on commercial bribery.

While we have internal controls and procedures in place to monitor internal and external compliance with anti-corruption laws, regulations and policies, we cannot assure you that such internal controls and procedures will always protect us from penalties that may be imposed by PRC government authorities due to violations committed by our employees or other parties with whom we have business relationships, such as our promoters and distributors. Examples of non-compliance misconducts may include gift-giving exchanges, acceptance of, or solicitation of, bribes, kickbacks, or other gratuities in contravention of applicable laws and regulations. If we, our employees, or other parties are not in compliance with anti-corruption laws in China governing the conduct of business, we may be fined or involved in lawsuits, resulting in loss of permits, licenses, and key personnel, which could cause reputation damage and have a material adverse impact on our business, financial condition or results of operations.

We have implemented policies and procedures designed to ensure that we, our employees, customers and other intermediaries comply with applicable anti-corruption laws in the countries where we operate. These measures include implementing internal policies governing our employees. To minimize our exposure to improper conduct by our promoters and distributors, we conduct background checks on prospective promoters and distributors before entering into business relationships with them. For details on our measures to ensure compliance with the applicable anti-corruption laws, see the "Business — Internal Control and Risk Management Measures — Anti-corruption Compliance Measures" in this prospectus. We cannot assure you, however, that our employees, customers and other intermediaries will observe our policies and procedures at all times. If we were not in compliance with the applicable anti-corruption laws, we may be subject to criminal and civil penalties and other remedial measures, which could cause reputation damage and have a material and adverse impact on our business, financial condition or results of operations.

The PRC laws and regulations relating to incentive payments are not always clear. Hence, the relevant governmental authorities may have considerable discretion in determining the misconduct with respect to corruption under certain circumstances. Moreover, the PRC government authorities have recently increased their efforts to combat corrupt, illegal or improper business practices generally in the PRC, which could subject our employees, customers or other intermediaries to increased scrutiny. If our employees, customers or other intermediaries either knowingly or unknowingly engage in corrupt or improper conduct in connection with the marketing, promotion or sales of our products and services, there would be a material and adverse impact on our business, financial condition or results of operations.

Furthermore, we are exposed to the risk of fraud or other misconduct committed by our employees, customers or other third parties, including our distributors and promoters, which could

subject us to financial losses, third party claims, regulatory investigations or reputational damage. Despite our internal control measures in place, we cannot assure you that our internal control policies and procedures are sufficient to prevent, or that we could properly manage the conduct of our employees or customers, or that we could otherwise fully detect or deter, all incidents of fraud, tax or other regulatory non-compliance, violations of relevant laws and regulations and other misconduct. Any such conduct committed by our employees, customers or other third parties could have an adverse effect on our reputation, business, financial condition and results of operations.

Our business may be affected by adverse news, scandals or other incidents that have a negative impact on the reputation and public perception of the PRC isotopes and irradiation technology industry.

Incidents that reflect doubt as to the quality or safety of radiopharmaceuticals and radioactive source products manufactured, distributed or sold by other participants in the PRC isotopes and irradiation industry, including our competitors, have been, and may continue to be, subject to widespread media attention. Such incidents may damage the reputation of not only the parties involved, but also the pharmaceuticals industry in general, even if such parties or incidents have no relation to us, our suppliers, our distributors or promoters. As a result, our brands and reputation and our sales activities could be materially and adversely affected by such negative news, scandals or other incidents.

Any loss of or significant reduction in the preferential tax treatment and government grant we currently enjoy in the PRC or our non-compliance with the relevant PRC tax laws and regulations may negatively affect our financial condition.

During the Track Record Period, our major subsidiaries, namely HTA, Headway, BNIBT and BINE, were qualified to enjoy the 15% preferential tax rate of enterprise income tax as "National High and New Technology" accredited companies in each fiscal year of 2015, 2016 and 2017. Our other subsidiary, CNGT, was qualified to enjoy the 15% preferential tax rate of "China's Western Development" enterprise income tax in each fiscal year of 2015, 2016 and 2017. We recognized tax concession of RMB41.5 million, RMB46.7 million and RMB47.9 million in 2015, 2016 and 2017, respectively. See Note 7 to "Appendix I — Accountants' Report" for more information. We cannot assure you that we will continue to enjoy such preferential tax treatment going forward.

In addition, for the years ended December 31, 2015, 2016 and 2017, we recognized income of government grants of RMB4.6 million, RMB7.3 million and RMB9.0 million, respectively, which included government support for the growth of our Company. The amounts of and conditions attached to such grants were determined at the sole discretion of the relevant governmental authorities. The government grants are non-recurring income and hence we cannot assure you that we will be eligible to continue to receive the government grants or that the amount of any such grants will not be reduced in the future, and, even if we continue to be eligible to receive government grants, we cannot guarantee that any conditions attached to the grants will be as favorable to us as they have historically been.

Expiration or elimination of, or other adverse changes to, any of these tax incentives, or reduction or discontinuation of these government grants, could materially and adversely affect our financial condition and results of operations. In addition, the PRC government from time to time adjusts or changes its tax laws and regulations. Such adjustments or changes, together with any uncertainty resulting therefrom, could have a material adverse effect on our business, financial

condition and results of operations. Furthermore, we are subject to periodic examinations on our fulfillment of tax obligation under the PRC tax laws and regulations by PRC tax authorities. We have been imposed with supplemental tax and late payment fee of enterprise income tax as we adopted a different interpretation of the accounting treatment of certain financial statement items to that of the tax authorities in the past. In 2014, Zhangjiagang Tax Bureau conducted an inspection of the finance and accounting record on Huakang Radiation. According to the calculation method adopted by Zhangjiagang Tax Bureau, Huakang Radiation allowed more amortization on the cobalt-60 sealed source for irradiation service than it should have done in the fiscal years of 2005 and 2006. Therefore, Huakang Radiation was ordered to pay the supplemental tax of RMB0.5 million and late payment fee of RMB0.5 million. See "Business — Regulatory Compliance — Historical Non-compliance Incidents" for further details. Although we believe that in the past we have acted in compliance with requirements under the relevant PRC tax laws and regulations in all material aspects and established effective internal control measures in relation to accounting regularities, we cannot assure you that future audits by PRC tax authorities would not result in fines, other penalties or actions that could materially and adversely affect our business, financial condition and results of operations, as well as our reputation.

Our rights to some of our land and buildings with defective titles are subject to legal uncertainties which may have adverse effect on our business, financial conditions and results of operations.

We face several legal uncertainties in our rights to some of our owned and leased properties with defective titles.

As of the Latest Practicable Date, we had not completed the ownership transfer procedures or obtained the building ownership certificates for four of our owned buildings, with a gross floor area of approximately 19,273.0 square meters and representing approximately 14.2% of the gross floor area of the buildings we owned as of the same date. As of December 31, 2017, the net book value of these four buildings amounted to RMB14.3 million, accounting for 9.9% of the net book value of the building and plant set forth in the Accountants' Report set out in the Appendix I to this Prospectus. Our rights in relation to such buildings, including the rights to occupy, use, transfer, lease, mortgage or otherwise dispose of such buildings in accordance with applicable PRC laws and regulations, may not be recognized and protected under PRC laws until we fully complete the relevant transfer procedures or obtain the relevant title certificates. We cannot assure you that we will be able to obtain all necessary title certificates for each of these buildings. If we are not able to obtain the building ownership certificates with respect to such properties, our rights to occupy, use, transfer, lease, and mortgage or otherwise dispose of such properties could be adversely affected which, in turn, could adversely affect our business, financial conditions and results of operations.

As of the Latest Practicable Date, we had not obtained the land use right certificate for one parcel of our owned land with defective title, with a total site area of approximately 10,000 square meters, representing approximately 4.4% of the total site area of the land we owned as of that date (excluding the site area of seven parcels of land as there are no site area measurements specified on the relevant title documents due to the combined registration of the ownership of the building and the parcel of land upon which the building was built (房屋所有權和土地所有權統一登記)). Our rights in relation to such land, including the rights to occupy, use, transfer, lease, and mortgage or otherwise dispose of such land in accordance with applicable PRC laws and regulations, may not be recognized and protected under PRC laws until we fully complete the relevant transfer procedures or obtain the

relevant title certificates. We cannot assure you that we will be able to obtain all necessary title certificates for such parcel of land. If we are not able to obtain the land use right certificate with respect to such parcel of land, our rights to occupy, use, transfer, lease, and mortgage or otherwise dispose of such land could be adversely affected which, in turn, could adversely affect our business, financial conditions and results of operations.

As of the Latest Practicable Date, there were four buildings leased by us for which the landlords had not provided the relevant building ownership certificates or any documentary evidence in respect of the right to dispose of such buildings. The gross floor area of such buildings is approximately 4,182.0 square meters, representing 11.0% of the gross floor area of the buildings that we leased as of that date. If our landlords or lessors do not have the legal building ownership certificates, or cannot obtain the relevant authorization documents from the legal owners, our continuous leases and use of the such buildings may be adversely affected. In addition, we cannot assure you that we will be able to renew our leases on terms acceptable to us upon their expiration. If any of our leases were to be terminated as a result of challenges by third parties or our lessors' refusal to renew them upon expiration, we might be forced to relocate some of our manufacturing operations or offices and incur losses or additional costs associated therewith which, in turn, could adversely affect our business, financial conditions and results of operations.

As of the Latest Practicable Date, we leased three parcels of land with a site area of approximately 4,778.0, 256.4, and 6,168.9 square meters, respectively, from our Controlling Shareholder without entering into lease agreements. Such parcels of land are used for production purposes. As of the Latest Practicable Date, our Controlling Shareholder was undergoing internal approval procedures to enter into the lease agreements with respect to such three parcels of land. We cannot assure you that our Controlling Shareholder would enter into the lease agreements in due course. If the internal approval procedure of our Controlling Shareholder delays, our right to continue to occupy and use such parcels of land could be adversely affected and, in turn, our business, financial conditions and results of operations could be adversely affected.

For further details on our properties with defective titles, see "Business — Properties" in this prospectus.

# We could be adversely affected as a result of our historical and future operations in certain countries and with certain persons that are subject to Sanctions.

We have in the past engaged in business involving Restricted Countries. For more information on our business directly or indirectly involving the Restricted Countries during the Track Record Period and up to the Latest Practicable Date, see the section headed "Business — Business Operations Involving Restricted Countries" in this prospectus. Neither the Company nor any member of our Group is a Designated Person or a Sectoral Sanctions Target and we conducted no business with any Designated Person or Sectoral Sanctions Targets during the Track Record Period and up to the Latest Practicable Date.

In 2015, 2016 and 2017, the revenue from our business involving Restricted Countries was approximately RMB0.50 million, RMB0.98 million and RMB0.59 million, respectively, which accounted for approximately 0.02%, 0.04% and 0.02% of the total revenue of our Group. Our Directors do not expect a significant increase in the revenue from Restricted Countries after the Listing. A sizeable portion of the Company's sales were through distributors and the Company's business with

Restricted Countries is disclosed in this prospectus only to the extent that the Company knew that the sales were destined to a Restricted Country.

As summarized in "Business — Business Operations Involving Restricted Countries — Our Undertakings and Internal Control Procedures," we have made certain Sanctions compliance-related undertakings to the Hong Kong Stock Exchange. If we breach any of these undertakings after the Listing, it is possible that the Hong Kong Stock Exchange may delist our shares. Although our Group is committed to implement a Sanctions compliance program, the process of fully implementing such a program and training relevant staff can take some time and, therefore, we cannot preclude the risk that our Group may inadvertently breach applicable Sanctions during the time that it takes to fully implement the Sanctions compliance program.

With respect to any past, current or future activities by our Group involving Restricted Countries or future business, if any, involving Sanctions Targets, we cannot predict the interpretation or implementation of Sanctions policy by any Sanctions Authority; nor can we necessarily foresee the interpretation of Sanctions that would be applied by the courts of any relevant jurisdiction to particular facts. We have no present intention to undertake any business that would cause us, or the Relevant Persons, to violate or otherwise become designated under applicable Sanctions. However, we can provide no assurances that our future business will be free of Sanctions risk or that we will conform our business to the expectations and requirements of any Sanctions Authorities that assert the right to impose sanctions on an extraterritorial basis.

The interpretation or implementation of policy by Sanctions Authorities with respect to any past, current or future activities by us or our affiliates may not be favorable to us. Although our overall business involving Restricted Countries represents only a small percentage of our total revenue, unfavorable Sanctions policy changes and interpretations may have an adverse effect on us, and in turn, on your investment. It is possible that our past, current or future business activities involving Restricted Countries or future business, if any, involving Designated Persons may be subject to negative media or investor attention regardless of whether they are permissible under applicable Sanctions, which may distract management's attention, consume internal resources and thus negatively impact our businesses and reputation and affect investors' perception of us. As a result, our business and reputation could be adversely affected. Additionally, new requirements or restrictions could come into effect, including in relation to countries, territories, entities, groups, or persons that are not currently Sanctions Targets, which might increase scrutiny and compliance costs of our businesses or result in one or more of our business activities becoming subject to Sanctions.

Sanctions may adversely affect our ability to receive payments for our sales to Restricted Countries. In addition, in the unlikely but not impossible event that we are targeted for designation under US Sanctions, certain investors may not be able to dispose of their shareholdings or receive distributions from us to the extent such post-designation activity would involve US persons or the US financial system. Any such designation by US Sanctions Authorities would also impose limitations on our business and would prohibit US persons or the US financial system from providing services or goods to us. Any of these events could have an adverse effect on your investment. Additionally, certain US state governments and universities have restrictions on the investment of public funds or endowment funds, respectively, in companies that are members of corporate groups with activities in certain jurisdictions. As a result, concern about potential legal or reputational risk associated with our historical and ongoing business involving Sanctioned Countries or future business, if any, involving Designated Persons could also reduce the marketability of our H Shares to such particular investors,

which could affect the price or after-market performance of our H Shares and our liquidity, and may materially and adversely affect our ability to raise financing, despite our undertaking not to direct the proceeds from the Global Offering to dealings with Sanctioned Countries, Designated Persons, or any other activity that would be prohibited by applicable Sanctions.

#### Our Controlling Shareholder is able to exercise significant influence over us.

Immediately upon the completion of the Global Offering (assuming the Over-allotment Option is not exercised), our Controlling Shareholder will own approximately 73.83% of our share capital. Accordingly, our Controlling Shareholder, may have the ability to exercise significant influence over our business, including matters relating to:

- our management, especially the composition of our senior management;
- our business strategies and expansion plans;
- distribution of dividends;
- plans relating to major corporate activities, such as strategic investments, mergers, acquisitions, joint ventures, investments or divestitures; and
- elections of our Directors and Supervisors.

This concentration of ownership may discourage, delay or prevent a change in control of our Company, which could deprive our Shareholders of opportunities to receive a premium for their Shares as part of a sale of us or our assets, and might reduce the price of our H Shares. Due to our Controlling Shareholder's significant shareholding position in our H Shares, these actions may be taken even if they are opposed by our other Shareholders, including those who subscribe for our H Shares in the Global Offering.

#### RISKS RELATING TO THE PRC

Changes in China's economic, political and social conditions, as well as government policies, could have a material adverse effect on our business, financial condition, results of operations and prospects.

All of our assets are located in China, and a substantial majority of our revenue is derived from our businesses in China. Accordingly, our financial condition, results of operations and prospects are, to a material extent, affected by economic, political and legal developments in China. The PRC economy differs from the economies of developed countries in many respects, including, among others, the degree of government involvement, investment control, level of economic development, growth rate, foreign exchange controls and resource allocation.

Although the PRC economy has been transitioning from a planned economy to a more market-oriented economy for more than three decades, a substantial portion of productive assets in China is still owned by the PRC government. The PRC government also exercises significant control over the economic growth of the PRC through allocating resources, controlling payments of foreign currency-denominated obligations, setting monetary policy and providing preferential treatment to particular industries or companies. In recent years, the PRC government has implemented measures emphasizing the utilization of market forces, the reduction of state ownership of productive assets and the establishment of sound corporate governance practices in business enterprises. Some of these measures benefit the overall PRC economy, but may materially and adversely affect us. For example, our

financial condition and results of operations may be materially and adversely affected by government policies on the isotopes and irradiation technology industry in China or changes in tax regulations applicable to us. If the market condition in China deteriorates, our business in China may also be materially and adversely affected.

# The PRC legal system has inherent uncertainties that could limit legal protections available to you.

PRC laws and regulations govern our operations in China. All of our operating subsidiaries are organized under PRC laws. China's legal system is based on written statutes and their interpretation by the Supreme People's Court. Prior court decisions may be cited for reference but have limited precedential value. The PRC government has significantly enhanced laws and regulations regulating commerce and business affairs, such as foreign investment, corporate organization and governance, trading of commerce, taxation and trade. However, as many of these laws and regulations are relatively new, and because the published decisions are limited in volume and non-binding, the interpretation and enforcement of these laws and regulations involve uncertainties. These uncertainties may materially and adversely affect our business and prospects and may further affect the legal protections and remedies available to investors, which in turn may materially and adversely affect the value of your investment.

In particular, the PRC isotopes and irradiation technology industry is highly regulated. Many aspects of our business depend upon the receipt of the relevant government authorities' approvals and permits. As the PRC legal system and industry in relation to isotopes and irradiation technology develop, changes in relevant laws and regulations, or in their interpretation or enforcement, could materially and adversely affect our business, financial condition and results of operations.

# Investors may experience difficulties in effecting service of legal process and enforcing judgments obtained from non-PRC courts in China against us and our Directors, Supervisors and management.

We are a company incorporated under the laws of PRC. All of our assets are located in China. In addition, most of our Directors and executive officers reside within China. As a result, it may not be possible to effect service of process within the United States or elsewhere outside the PRC upon our Directors, Supervisors and executive officers. Moreover, the PRC has not entered into treaties or arrangements providing for the reciprocal recognition and enforcement of judgments with the United States, the United Kingdom, or most other western countries or Japan. Although the Supreme People's Court has promulgated Agreement of Recognition and Enforcement of Judgment of Civil and Commercial Cases under the Jurisdiction between the Courts of the Mainland and Hong Kong, it may only be limited to the situations where any People's Court of the Mainland or any court of Hong Kong has made an enforceable final judgment requiring payment of money in a civil and commercial case pursuant to a choice of court agreement in writing. In addition, Hong Kong has not entered into arrangements with the United States for the reciprocal enforcement of judgments. As a result, recognition and enforcement in China or Hong Kong of a court judgment obtained in the United States or any of the other jurisdictions mentioned above in relation to any matter that is not pursuant to a binding arbitration provision may be difficult or impossible.

You may be subject to PRC withholding tax on dividends from us and PRC income tax on any gain realized on the transfer of our H Shares.

Non-PRC resident individual holders of H Shares whose names appear on the register of members of H Shares ("non-PRC resident individual holders") are subject to PRC individual income tax on dividends received from us. Pursuant to the Circular on Questions Concerning the Collection of Individual Income Tax Following the Repeal of Guo Shui Fa [1993] No. 045 (Guo Shui Han [2011] No. 348) (《關於國税發 [1993] 045 號文件廢止後有關個人所得稅徵管問題的通知》(國稅函[2011]348號)) dated June 28, 2011 and issued by the SAT, the tax rate applicable to dividends paid to non-PRC resident individual holders of H Shares varies from 5.0% to 20.0% (usually 10.0%), depending on whether there is any applicable tax treaty between the PRC and the jurisdiction in which the non-PRC resident individual holder of H Shares resides, as well as the tax arrangement between the PRC and Hong Kong. Non-PRC resident individual holders who reside in jurisdictions that have not entered into tax treaties with the PRC are subject to a 20.0% withholding tax on dividends received from us. See "Appendix III — Taxation and Foreign Exchange." In addition, under the Individual Income Tax Law of the PRC (《中華人民共和國個人所得稅法》) and its implementation regulations, non-PRC resident individual holders of H Shares are subject to individual income tax at a rate of 20.0% on gains realized upon the sale or other disposition of H Shares. However, pursuant to the Circular Declaring that Individual Income Tax Continues to be Exempted over Income of Individuals from Transfer of Shares (《關於個人轉讓股票所得繼續暫免徵收個人所得税的通知》) issued by the MOF and the SAT on March 30, 1998, gains of individuals derived from the transfer of listed shares in enterprises may be exempt from individual income tax. Based on our knowledge as of the Latest Practicable Date, the PRC tax authorities have not in practice sought to collect individual income tax on such gains. If such tax is collected in the future, the value of such individual holders' investments in H Shares may be materially and adversely affected.

Under the EIT Law and its implementation regulations, a non-PRC resident enterprise is generally subject to enterprise income tax at a rate of 10.0% with respect to its PRC-sourced income, including dividends received from a PRC company and gains derived from the disposition of equity interests in a PRC company, subject to reductions under any special arrangement or applicable treaty between the PRC and the jurisdiction in which the non-PRC resident enterprise resides. Pursuant to the Circular on Questions Concerning Withholding of Enterprise Income Tax for Dividends Distributed by Resident Enterprises in China to Non-resident Enterprises Holding H-shares of the Enterprises (《關於中國居民企業向境外H股非居民 (Guo Shui Han [2008] No. 897) 企業股東派發股息代扣代繳企業所得税有關問題的通知》(國税函[2008]897號)) promulgated by the SAT on November 6, 2008, we intend to withhold tax at 10.0% from dividends payable to non-PRC resident enterprise holders of H Shares (including HKSCC Nominees). Non-PRC resident enterprises that are entitled to be taxed at a reduced rate under an applicable income tax treaty or arrangement will be required to apply to the PRC tax authorities for a refund of any amount withheld in excess of the applicable treaty rate, and payment of such refund will be subject to the PRC tax authorities' approval. See "Appendix III — Taxation and Foreign Exchange" to this prospectus. As the EIT Law and its implementation rules are relatively new, there are uncertainties as to their interpretation and implementation by the PRC tax authorities, including whether and how enterprise income tax on gains derived upon the sale or other disposition of H Shares will be collected from non-PRC resident enterprise holders of H Shares. If such tax is collected in the future, the value of such non-PRC resident enterprise holders' investments in H Shares may be materially and adversely affected.

The PRC regulations relating to registration requirements for employee share ownership plans or share option plans may subject our management to personal liability or administration sanction, or limit our subsidiaries' ability to distribute dividend to us, or otherwise materially and adversely affect our financial position.

SAFE issued the Circular of the SAFE on Relevant Issues concerning Foreign Exchange Administration of Offshore Investment, Financing and Inbound Investment through Special Purpose Companies by PRC Residents (《國家外匯管理局關於境內居民通過特殊目的公司境外投融資及返程投資外匯管理有關問題的通知》) ("Circular 37") on July 4, 2014. According to the Circular 37, a special purpose company means an offshore company that is directly established or indirectly controlled by PRC domestic residents (including domestic entities and domestic individuals), for financing purposes, with its onshore or offshore assets or equities legally held by such domestic residents. In the event that an unlisted special purpose company intends to issue share incentives to the employees of its subsidiaries with its own shares, such employees who are PRC individuals shall conduct foreign exchange registration for that special purpose company with the competent foreign exchange authority.

SAFE promulgated the Notice on Issues Concerning the Foreign Exchange Administration for Domestic Individuals Participating in Stock Incentive Plan of Overseas Publicly-Listed Companies (or the "Stock Option Rules") on February 15, 2012. According to the Stock Option Rules and other relevant rules and regulations, PRC residents who participate in a stock incentive plans in an overseas publicly-listed company are required to register with SAFE or its local branches and complete certain other procedures. Participants of a stock incentive plan who are PRC residents must retain a qualified PRC agent, which could be a PRC subsidiary, to conduct the SAFE registration and other procedures with respect to the stock incentive plan on their behalf. The participants must also appoint an overseas entrusted institution to handle matters in connection with their exercises of stock options, the purchase and sale of corresponding stocks or interests and transfer of funds. In addition, the PRC agent is required to amend the SAFE registration with respect to the stock incentive plan if there is any material change to the stock incentive plan, the PRC agent or the overseas entrusted institution or other material aspects.

Although Circular 37 of the Stock Option Rules is silent on the liabilities of the special purpose company's subsidiaries, in the event of such employees' failure to conduct such foreign exchange registration, such PRC subsidiaries may be prohibited from distributing their profits and the proceeds from any reduction in capital, share transfer or liquidation to the offshore special purpose company, which in turn limits certain of our subsidiaries' ability to distribute profits to us, and this may materially and adversely affects our financial position. Also, failure to complete SAFE registrations by our PRC share option holders or restricted shareholders or such members under the Circular 37 may subject such members to fines and legal sanctions or other administrative sanctions.

If, in the future, such members are regarded by SAFE to have violated Circular 37 or other relevant regulations due to their holdings of our H Shares without conducting the foreign exchange registration as requested, such members may be subject to fines and legal sanctions. Our subsidiaries' ability to distribute profits to us may also be limited. This may materially and adversely affect our financial position.

Any future occurrence of force majeure events, natural disasters or health or public security hazards in China may severely disrupt our business and operations and may have a material adverse effect on our financial condition and results of operations.

Any future occurrence of force majeure events, natural disasters or outbreaks of epidemics and contagious diseases, including avian influenza, severe acute respiratory syndrome, swine influenza caused by the H1N1 virus, or H1N1 influenza, the Ebola virus or Middle East Respiratory Syndrome, may materially and adversely affect our business, financial condition and results of operations. In 2009, there were reports of the occurrence of H1N1 influenza in certain regions of the world, including the PRC and Hong Kong, where we conduct business. An outbreak of an epidemic or contagious disease could result in a widespread health crisis and restrict the business activities in affected areas, which may, in turn, materially and adversely affect our business. Moreover, the PRC has experienced natural disasters such as earthquakes, floods and droughts in the past few years. Any future occurrence of severe natural disasters in China may materially and adversely affect its economy and our business. We cannot assure you that any future occurrence of natural disasters or outbreaks of epidemics and contagious diseases, including avian influenza, severe acute respiratory syndrome, H1N1 influenza or other epidemics, or the measures taken by the PRC government or other countries in response to such contagious diseases, will not seriously disrupt our operations or those of our customers, which may materially and adversely affect our business, financial condition and results of operations.

# Restrictions on currency exchanges may limit our ability to utilize our revenue effectively and the ability of our subsidiaries to obtain financing.

We currently receive a significant amount of our revenue in Renminbi. Renminbi is not presently a freely convertible currency, and the restrictions on currency exchanges may limit our ability to use revenue generated in Renminbi to fund our business activities outside the PRC or payments in currencies other than Renminbi. The PRC government, through SAFE and other government agencies, regulates conversion of Renminbi into foreign currencies. Under the PRC's foreign exchange regulations, payments of current account items, including dividend payments, interest payments and expenditures from trade, are freely exchangeable into foreign currencies without prior government approval provided certain procedural requirements are met. However, the PRC government may limit the foreign exchange under the payments of current account items in the future, and, as a result, we may not be able to pay dividends to our shareholders in a foreign currency.

Conversion of currency in the "capital account" (e.g. capital items such as direct investments or loans) requires the approval of SAFE or its local branches. These limitations could materially and adversely affect the ability of our PRC operating subsidiaries and affiliate companies to obtain foreign currencies through equity financing or for capital expenditures, therefore impeding our overall business operations.

Some facts, forecasts and statistics contained in this prospectus with respect to the PRC, the PRC economy and industry in relation to isotopes and irradiation technology are derived from various official or other third-party sources and may not be accurate, reliable, complete or up to date.

Some of the facts, forecasts and statistics in this prospectus relating to the PRC, the PRC economy and industry in relation to isotopes and irradiation technology are derived from various official or other third-party sources, including the Frost & Sullivan Report. While we have exercised reasonable care in compiling and reproducing these facts, forecasts and statistics, they have not been independently verified by us. Therefore, we make no representation as to the accuracy of such facts,

forecasts and statistics, which may be inconsistent with other information compiled within or outside these jurisdictions and may not be complete or up to date. Moreover, the statistics in this prospectus may be inaccurate or less developed than statistics produced for other economies and should not be unduly relied upon.

#### RISKS RELATING TO THE GLOBAL OFFERING

There has been no prior public market for our H Shares, their market price may be volatile and an active trading market in our H Shares may not develop.

Prior to the Global Offering, there has been no public market for our H Shares. The initial issue price range for our H Shares was the result of negotiations between our Company and the Underwriters and the Offer Price may differ significantly from the market price of our H Shares following the Global Offering. We have applied for listing of and permission to deal in our H Shares on the Hong Kong Stock Exchange, however, does not guarantee that an active trading market for our H Shares will develop, or if it does develop, that it will be sustainable following the Global Offering or that the market price of our H Shares will not decline after the Global Offering.

Furthermore, the price and trading volume of our H Shares may be volatile. The following factors, among others, may cause the market price of our H Shares after the Global Offering to vary significantly from the Offer Price:

- variations in our revenue, earnings and cashflow;
- unexpected business interruptions resulting from natural disasters or power shortages;
- major changes in our key personnel or senior management;
- our inability to obtain or maintain regulatory approval for our operations;
- our inability to compete effectively in the market;
- political, economic, financial and social developments in China and Hong Kong and in the global economy;
- fluctuations in stock market prices and volume;
- changes in analysts' estimates of our financial performance; and
- involvement in material litigation.

Since there will be a gap of several days between pricing and trading of our Offer Shares, holders of our Offer Shares are subject to the risk that the price of our Offer Shares could fall during the period before trading of our Offer Shares begins.

The Offer Price of our H Shares is expected to be determined on the Price Determination Date. However, our H Shares will not commence trading on the Hong Kong Stock Exchange until they are delivered, which is expected to be six Hong Kong business days after the Price Determination Date. As a result, investors may not be able to sell or deal in our H Shares during that period. Accordingly, holders of our H Shares are subject to the risk that the price of our H Shares could fall before trading begins as a result of adverse market conditions or other adverse developments, which could occur between the time of sale and the time trading begins.

Future sales or perceived sales of a substantial number of our H Shares in public markets could cause the prevailing market price of our H Shares to decrease significantly, as well as dilute our Shareholders' shareholdings.

The market price of our H Shares could decline as a result of future sales of a substantial number of our H Shares or other securities relating to our H Shares in the public market, or the issuance of new Shares or other securities, or the perception that such sales or issuances may occur. Future sales, or anticipated sales, of substantial amounts of our securities, including any future offerings, could also materially and adversely affect our ability to raise capital at a specific time and on terms favorable to us. In addition, our Shareholders may experience dilution in their holdings when we issue additional securities in future offerings. New equity or equity-linked securities issued by us may also confer rights and privileges that take priority over those conferred by the H Shares.

# As the Offer Price of our H Shares is higher than our combined net tangible book value per Share, purchasers of our H Shares in the Global Offering may experience immediate dilution upon such purchases.

As the Offer Price of our H Shares is higher than the consolidated net tangible assets per Share immediately prior to the Global Offering, purchasers of our H Shares in the Global Offering will experience an immediate dilution in pro forma adjusted consolidated net tangible assets of HK\$11.80 per Share (assuming an Offer Price of HK\$21.00 per Offer Share, being the mid-point of the stated Offer Price range, and assuming the Over-allotment Option is not exercised). Our existing Shareholders will receive an increase in the pro forma adjusted consolidated net tangible asset value per Share of their Shares. In addition, holders of our H Shares may experience further dilution of their interest if the Over-allotment Option is exercised or if we issue additional Shares in the future to raise additional capital.

#### We cannot assure you that we will declare and distribute any amount of dividends in the future.

Our ability to declare future dividends will primarily depend on the availability of dividends, if any, received from our operating subsidiaries. Under applicable laws and the constitutional documents of our operating subsidiaries, the payment of dividends may be subject to certain limitations. The calculation of certain of our operating subsidiaries' profit under applicable accounting standards differs in certain respects from the calculation under IFRSs. As a result, our operating subsidiaries may not be able to pay a dividend in a given year even if they have profit as determined under IFRSs. Accordingly, since our Company derives substantially all of our earnings and cashflows from dividends paid to us by our operating subsidiaries, we may not have sufficient distributable profit to pay dividends to our Shareholders.

For the years ended December 31, 2015, 2016 and 2017, we declared cash dividends of RMB172.1 million, RMB186.3 million and RMB175.2 million, respectively, to our shareholders, respectively, and as of December 31, 2015, 2016 and 2017, we paid cash dividends of nil, RMB319.0 million and RMB177.5 million to our shareholders, respectively. We cannot assure you that dividends will be declared or paid in the future. The declaration, payment and amount of any future dividends are subject to the discretion of our Directors depending on, among other considerations, our operations, earnings, financial condition, cash requirements and availability, our constitutional documents and applicable law. For more details on our dividend policy, see "Financial Information — Dividend Policy" in this prospectus.

# Certain facts and statistics derived from government and third-party sources contained in this prospectus may not be reliable.

We have derived certain facts and other statistics in this prospectus, particularly those relating to the PRC, the PRC economy and the industry in which we operate, from information provided by the PRC and other government agencies, industry associations, independent research institutes or other third-party sources. While we have taken reasonable care in the reproduction of the information, it has not been prepared or independently verified by us, the Underwriters or any of our or their respective affiliates or advisors. Therefore, we cannot assure you of the accuracy and reliability of such facts and statistics, which may not be consistent with other information compiled inside or outside the PRC. The facts and other statistics include the facts and statistics included in the sections headed "Risk Factors," "Industry Overview" and "Business" in this prospectus. Due to possibly flawed or ineffective collection methods or discrepancies between the published information and market practice and other problems, the statistics herein may be inaccurate or may not be comparable to statistics produced for other economies and you should not place undue reliance on them. Furthermore, we cannot assure you that they are stated or compiled on the same basis, or with the same degree of accuracy, as the similar statistics presented elsewhere. In all cases, you should consider carefully how much weight or importance you should attach to or place on such facts or statistics.

# You should read the entire document carefully and we strongly caution you not to rely on any information contained in press articles or other media regarding us and the Global Offering.

Prior to the publication of this prospectus, there had been press and media coverage regarding us and the Global Offering, which contained, among other things, certain financial information, projections, valuations and other forward-looking information about us and the Global Offering. We have not authorized the disclosure of any such information in the press or media and do not accept responsibility for the accuracy or completeness of such press articles or other media coverage. We make no representation as to the appropriateness, accuracy, completeness or reliability of any of the projections, valuations or other forward-looking information about us. To the extent that such statements are inconsistent with, or conflict with, the information contained in this prospectus, we disclaim responsibility for them. Accordingly, prospective investors are cautioned to make their investment decisions on the basis of the information contained in this prospectus only and should not rely on any other information.

In preparation for the Global Offering, we have applied for the following waivers from strict compliance with the relevant provisions of the Listing Rules.

#### MANAGEMENT PRESENCE IN HONG KONG

According to Rules 8.12 and 19A.15 of the Listing Rules, our Company must have sufficient management presence in Hong Kong. This normally means that at least two of the executive Directors must be ordinarily resident in Hong Kong. Since our principal business and operations, principal clients and assets are primarily located in the PRC, we do not, and for the foreseeable future, will not, have executive Directors who are ordinarily resident in Hong Kong, for the purposes of satisfying the requirements under Rules 8.12 and 19A.15 of the Listing Rules. Currently, all of our executive Directors and senior management members reside in the PRC.

Accordingly, we have applied to the Stock Exchange for, and the Stock Exchange has granted to us, a waiver from strict compliance with Rules 8.12 and 19A.15 of the Listing Rules. We have made arrangements to maintain effective communication with the Stock Exchange as follows:

- (i) Both of our authorized representatives, Mr. Meng Yanbin and Mr. Wu Laishui, will act at all times as our principal channel of communication with the Stock Exchange and ensure our Company complies with the Listing Rules at all times. Although Mr. Meng Yanbin and Mr. Wu Laishui reside in the PRC, they possess valid travel documents and are able to renew such travel documents when they expire in order to visit Hong Kong. Accordingly, our authorized representatives will be able to meet with the relevant members of the Stock Exchange on short notice.
- (ii) Both of our authorized representatives have means of contacting all our Directors (including our independent non-executive Directors) and senior management members promptly at all times and when the Stock Exchange wishes to contact a Director or a senior management member for any reason.
- (iii) Ms. Kam Mei Ha, Wendy, one of our joint company secretaries, who is a Hong Kong resident, will, among other things, act as our alternative channel of communication with the Stock Exchange and be able to answer enquiries from the Stock Exchange.
- (iv) Each of our Directors has provided their mobile phone number, office phone number, fax number and e-mail address (if applicable) to the authorized representatives of our Company and the Stock Exchange, and in the event that any Director expects to travel or otherwise be out of office, he/she will provide the phone number of the place of his/her accommodation to the authorized representatives.
- (v) We will ensure that we have at least one independent non-executive Director ordinarily resides in Hong Kong.
- (vi) Each of our Directors who does not ordinarily reside in Hong Kong possesses valid travel documents to visit Hong Kong and will be able to meet with the relevant members of the Stock Exchange within a reasonable period of time.
- (vii) We have appointed China International Capital Corporation Hong Kong Securities Limited as our compliance advisor in accordance with Rule 3A.19 of the Listing Rules. The compliance advisor will, among other things, and in addition to our Company's authorized representatives, act as an additional channel of communication of our Company with the Stock Exchange and be available to answer enquiries from the Stock Exchange.

We will ensure that there are adequate and efficient means of communication among our Company, our Company's Directors, authorized representatives, other officers and the compliance advisor.

#### **COMPANY SECRETARY**

#### **Rule 8.17**

Pursuant to Rule 8.17 of the Listing Rules, we must appoint a company secretary who satisfies Rule 3.28 of the Listing Rules.

#### **Rule 3.28**

Pursuant to Rule 3.28 of the Listing Rules, the secretary of our Company must be a person who, by virtue of his/her academic or professional qualifications or relevant experience, is, in the opinion of the Stock Exchange, capable of discharging the functions of company secretary. The Stock Exchange considers the following academic or professional qualifications to be acceptable:

- (i) a member of The Hong Kong Institute of Chartered Secretaries;
- (ii) a solicitor or barrister (as defined in the Legal Practitioners Ordinance); and
- (iii) a certified public accountant (as defined in the Professional Accountants Ordinance).

In assessing "relevant experience", the Stock Exchange will consider the individual's:

- (i) length of employment with the issuer and other issuers and the roles he or she played;
- (ii) familiarity with the Listing Rules and other relevant law and regulations including the Securities and Future Ordinance, Companies Ordinance, Companies (Winding Up and Miscellaneous Provisions) Ordinance and the Takeovers Code;
- (iii) relevant training taken and/or to be taken in addition to the minimum requirement under Rule 3.29 of the Listing Rules; and
- (iv) professional qualifications in other jurisdictions.

Our Company has appointed Mr. Wu Laishui as one of the joint company secretaries. Mr. Wu Laishui joined our Group in April 2009 and has served as the chief accountant of our Company since December 2015 and chief legal officer of our Company since August 2016. Mr. Wu Laishui possesses extensive knowledge of, and abundant experience in, the business and operation of our Company. For further details, please see the section headed "Directors, Supervisors and Senior Management."

Since Mr. Wu Laishui does not possess the acceptable professional or academic qualifications under Rule 3.28 of the Listing Rules, our Company has appointed Ms. Kam Mei Ha, Wendy, a fellow member of the Hong Kong Institute of Chartered Secretaries and the Institute of Chartered Secretaries and Administrators in United Kingdom, who fully complies with the requirements under Rule 3.28 of the Listing Rules to act as the other joint company secretary. Over a period of three years from the Listing Date, we propose to implement the following measures to assist Mr. Wu Laishui to become a company secretary with the requisite qualifications or relevant experience as required under the Listing Rules:

(i) Ms. Kam Mei Ha, Wendy, has been appointed as a joint company secretary of our Company. She will provide training and ongoing assistance to Mr. Wu Laishui by

introducing him to the relevant provisions and requirements of the Listing Rules to enhance and improve Mr. Wu Laishui's knowledge of and familiarity with the requirements of the Listing Rules. We will further ensure that Mr. Wu Laishui has access to the relevant training and support that would enable him to familiarize himself with the Listing Rules and the duties required of a company secretary of an issuer listed on the Stock Exchange. In addition, Mr. Wu Laishui will endeavor to familiarize himself with the Listing Rules during the three-year period from the Listing Date and will comply with the annual professional training requirement under Rule 3.29 of the Listing Rules.

- (ii) We will reapply to the Stock Exchange in the event that Ms. Kam Mei Ha, Wendy, ceases to meet the requirements under Rules 3.28 and 8.17 of the Listing Rules or otherwise ceases to serve as a joint company secretary of our Company.
- (iii) Before expiry of Mr. Wu Laishui's initial term of appointment as the joint company secretary of our Company, we will re-evaluate Mr. Wu Laishui's experience in order to determine if he has acquired the qualifications required under Rule 3.28 of the Listing Rules, and whether the above joint company secretaries arrangement would still be necessary.

We have applied to the Stock Exchange for, and the Stock Exchange has granted to us, a waiver from strict compliance with Rules 3.28 and 8.17 of the Listing Rules. The waiver will be revoked immediately if Ms. Kam Mei Ha, Wendy, ceases to provide assistance and guidance to Mr. Wu Laishui. In the event that Mr. Wu Laishui has obtained relevant experience under Rule 3.28 of the Listing Rules at the end of the said initial three-year period, the above joint company secretaries arrangement will no longer be required by our Company.

#### NON-EXEMPT CONTINUING CONNECTED TRANSACTIONS

Our Group has entered into certain transactions which would constitute continuing connected transactions of our Company pursuant to Chapter 14A of the Listing Rules upon the Listing. We have applied to the Stock Exchange for, and the Stock Exchange has granted to us, a waiver under Rule 14A.105 of the Listing Rules from strict compliance with the announcement and/or independent shareholders' approval requirements (as the case may be) under the Listing Rules in relation to certain continuing connected transactions. For further details, please see the section headed "Connected Transactions."

# WAIVER FROM STRICT COMPLIANCE WITH RULES 4.04(2) AND 4.04(4) OF THE LISTING RULES

Pursuant to Rules 4.04(2) and 4.04(4) of the Listing Rules, the issuer shall include in its accountants' report the results and statement of financial position of any subsidiaries and/or businesses acquired, agreed to be acquired or proposed to be acquired since the date to which the latest audited accounts of the issuer have been made up in respect of each of the three financial years immediately preceding the issue of the listing document.

The Company has acquired and/or proposed to acquire certain assets and/or businesses after the Track Record Period and up to the Latest Practicable Date, including:

i. on December 7, 2017, the Company established CNNC Taizhou with Saiwang, in which the Company and Saiwang hold 86% and 14% equity interest, respectively. As of the

Latest Practicable Date, Mr. Cao Maofen was a beneficial owner of Saiwang and served as the general manager of Saiwang. On December 14, 2017, the Company, CNNC Taizhou, Mr. Cao Maofen and Saiwang entered into an Asset Acquisition Agreement (the "Asset Acquisition Agreement"), pursuant to which CNNC Taizhou agreed to purchase all the operating assets of Saiwang, including but not limited to production plant, warehouse, land and operating equipment, at the consideration of RMB35 million (the "Saiwang Acquisition"). On December 26, 2017 and January 23, 2018, CNNC Taizhou paid RMB7 million and RMB0.7 million, respectively, for part of the target assets, including the lands and buildings of Saiwang. However, as of the Latest Practicable Date, the Saiwang Acquisition was not completed yet and therefore constitutes a post-track-record-period acquisition pursuant to Rules 4.04(2) and 4.04(4) of the Listing Rules and the Guidance Letter HKEx-GL43-12.

- ii. on April 27, 2018, the Company entered into a Share Purchase Agreement (the "Share Purchase Agreement") with Liuhe Zhongxin, pursuant to which the Company agreed to purchase 100% of the equity interest in Sanjin held by Liuhe Zhongxin at the consideration of RMB 211.5 million (the "Sanjin Acquisition"). On April 27, 2018 and April 28, 2018, the Company paid RMB80 million and RMB120 million, respectively, as part of the consideration to Liuhe Zhongxin.
- iii. as of the Latest Practicable Date, the Company is considering to acquire certain businesses of Meiquan (the "Possible Meiquan Acquisition") (the Saiwang Acquisition, the Sanjin Acquisition and the Possible Meiquan Acquisition are collectively referred to as the "Post-TRP Acquisitions").

For details of the Post-TRP Acquisitions, please see "History, Development and Corporate Structure — Post Track Record Period Acquisitions" in this prospectus.

Based on the following reasons, the Company has applied to the Hong Kong Stock Exchange for, and the Hong Kong Stock Exchange has granted us, a waiver from strict compliance with Rules 4.04(2) and 4.04(4) of the Listing Rules:

- Immateriality of the Post-TRP Acquisitions: The scale of the business to be acquired by the Company through the Post-TRP Acquisitions as compared to that of the Group is not material. Each of the assets ratio, revenue ratio and profits ratio in relation to the Post-TRP Acquisitions is, individually or in aggregate, well below 5% that of the Company for the financial year ended December 31, 2017. In addition, notwithstanding that the Post-TRP Acquisitions represent suitable strategic acquisition targets of the Group, the Company is of the view that the Post-TRP Acquisitions, as and if completed or materialized, would not significantly affect the financial position of the Group as a whole. Furthermore, that the Company believes that each of CNNC Taizhou and Sanjin does not constitute a material subsidiary of the Company.
- Undue burden to obtain and prepare historical financial information of the target companies to be acquired: The Saiwang Acquisition and Sanjin Acquisition are still subject to completion by the parties, and the Company has not entered into any form of agreement (binding or otherwise) with the counterparties with respect to the Possible Meiquan Acquisition. There is no assurance as to whether the Possible Meiquan Acquisition would proceed as at the date of this Prospectus. Since the Group is still in the process of acquiring the target assets of Saiwang and Sanjin, and is not previously

involved in the day-to-day management of Saiwang, Sanjin and Meiquan, it will require considerable time and resources for the Company and its reporting accountant to become fully familiar with the accounting policies of Saiwang, Sanjin and Meiquan and gather and compile the necessary financial information and supporting documents for disclosure in this prospectus. Accordingly, having considered the immateriality of the business as well as the time and resources required to obtain, compile and audit such historical financial information in conformity with the Company's accounting policies, it would be unduly burdensome and impracticable for the Company to prepare and include the financial information of the business under the Post-TRP Acquisitions in this prospectus.

• Disclosure of necessary information in the prospectus: With a view to allowing the potential investors to understand the Post-TRP Acquisitions in greater details, the Company has included in this prospectus the relevant information in relation to the Post-TRP Acquisitions which is comparable to the information that is required to be included in the announcement of a disclosable transaction under Chapter 14 of the Listing Rules, including (a) general description of the scope of principal business activities of the target companies and the counterparties, and financial information on the target companies available to our Company; (b) the consideration of the transaction; (c) the basis on which the consideration is determined; (d) how the consideration will be satisfied and the payment terms; (e) reasons for and benefits of the transactions; and (f) any other material terms in relation to the Post-TRP Acquisitions.

For details, please see "History, Development and Corporate Structure — Post Track Record Period Acquisitions" in this prospectus.

## INFORMATION ABOUT THIS PROSPECTUS AND THE GLOBAL OFFERING

#### INFORMATION AND REPRESENTATION

You should only rely on the information contained in this prospectus and the Application Forms to make your investment decision. None of the Company, the Joint Global Coordinators, the Sole Sponsor, the Joint Bookrunners, the Joint Lead Managers, the Underwriters, or their respective directors, officers, employees, advisors, agents or representatives, nor any other person involved in the Global Offering has authorized anyone to provide you with any information or to make any representation that is different from what is contained in this prospectus. No representation is made that there has been no change or development reasonably likely to involve a change in our Group's affairs since the date of this prospectus or that the information contained in this prospectus is correct as at any date subsequent to its date.

#### DIRECTORS' RESPONSIBILITY FOR THE CONTENTS OF THIS PROSPECTUS

This prospectus contains particulars given in compliance with the Companies (Winding Up and Miscellaneous Provisions) Ordinance, the Securities and Futures (Stock Market Listing) Rules of Hong Kong and the Listing Rules for the purpose of giving information to the public with regard to the Company. The Directors collectively and individually accept full responsibility for the accuracy of the information contained in this prospectus and confirm, having made all reasonable inquiries, that, to the best of their knowledge and belief, the information in this prospectus is accurate and complete in all material respects and not misleading or deceptive, and there are no other matters the omission of which would make any statement in this prospectus misleading.

## APPROVAL OF THE CSRC

The CSRC has given its approval for the Global Offering and the making of the application to list the H Shares on the Stock Exchange on May 24, 2018. In granting such approval, the CSRC accepts no responsibility for the financial soundness of the Company or the accuracy of any of the statements made or opinions expressed in this prospectus or in the Application Forms.

As advised by our PRC Legal Advisors, the Company has obtained all necessary approvals and authorizations in the PRC in relation to the Listing.

# **UNDERWRITING**

This prospectus is published solely in connection with the Hong Kong Public Offering, which forms part of the Global Offering. For applicants under the Hong Kong Public Offering, this prospectus and the Application Forms contain the terms and conditions of the Hong Kong Public Offering.

The listing of the H Shares on the Stock Exchange is sponsored by the Sole Sponsor. The Global Offering is managed by the Joint Global Coordinators. Pursuant to the Hong Kong Underwriting Agreement, the Hong Kong Public Offering is fully underwritten by the Hong Kong Underwriters on a conditional basis. The International Underwriting Agreement is expected to be entered into on or about Thursday, June 28, 2018, subject to agreement on the Offer Price among the Company and the Joint Global Coordinators (for themselves and on behalf of the Underwriters). If, for any reason, the Offer Price is not agreed between the Joint Global Coordinators (for themselves and on behalf of the Underwriters) and the Company, the Global Offering will not proceed and will lapse. Further details about the Underwriters and the underwriting arrangements are contained in the section headed "Underwriting" in this prospectus.

## INFORMATION ABOUT THIS PROSPECTUS AND THE GLOBAL OFFERING

#### CERTAIN MATTERS RELATING TO THE HONG KONG PUBLIC OFFERING

#### Restriction on Offer and Sale of the Offer Shares

Each person acquiring the Hong Kong Offer Shares will be required to, or be deemed by his/her acquisition of the Hong Kong Offer Shares to, confirm that he/she is aware of the restrictions on offers of the Hong Kong Offer Shares described in this prospectus and the related Application Forms.

No action has been taken to permit a public offering of the Offer Shares or the general distribution of this prospectus and/or the related Application Forms in any jurisdiction other than Hong Kong. Accordingly, this prospectus may not be used for the purpose of, and does not constitute, an offer or invitation in any jurisdiction or in any circumstances in which such an offer or invitation is not authorized or to any person to whom it is unlawful to make such an offer or invitation. In particular, the Offer Shares have not been offered or sold, and will not be offered or sold, directly or indirectly, in the PRC and the US. The distribution of this prospectus and the offering and sales of the Offer Shares in other jurisdictions are subject to restrictions and may not be made except as permitted under the applicable securities laws of such jurisdictions pursuant to registration with or authorization by the relevant securities regulatory authorities or an exemption therefrom. Each person acquiring the Hong Kong Offer Shares under the Hong Kong Public Offering will be required to confirm, or be deemed by his/her acquisition of Hong Kong Offer Shares to confirm, that he/she is aware of the restrictions on offers and sales of the Offer Shares described in this prospectus and the related Application Forms.

The Offer Shares are offered for subscription solely on the basis of the information contained and representations made in this prospectus and the related Application Forms, and on the terms and subject to the conditions set out herein and therein. No person is authorized in connection with the Global Offering to give any information, or to make any representation, not contained in this prospectus, and any information or representation not contained in this prospectus must not be relied upon as having been authorized by the Company, the Sole Sponsor, the Joint Global Coordinators, the Joint Bookrunners, the Underwriters, any of their respective directors or any other persons or parties involved in the Global Offering. For further details of the structure of the Global Offering, please see the sections headed "Structure of the Global Offering" and "How to Apply for the Hong Kong Offer Shares" in this prospectus and the relevant Application Forms.

#### **Application for Listing on the Stock Exchange**

We have applied to the Listing Committee for the listing of, and permission to deal in, the H Shares, including: (i) the Offer Shares; and (ii) any H Shares which may be issued by us pursuant to the exercise of the Over-allotment Option. Dealings in the H Shares on the Hong Kong Stock Exchange are expected to commence on Friday, July 6, 2018.

Save as disclosed in this prospectus, no part of our share capital is listed on or dealt in on any other stock exchange and no such listing or permission to list is being or proposed to be sought in the near future.

# **H Share Register and Stamp Duty**

All of the H Shares issued pursuant to applications made in the Global Offering will be registered on the H Share register to be maintained in Hong Kong by the H Share Registrar, Computershare Hong Kong Investor Services Limited. Our principal register of members will be maintained by us at our head office in the PRC.

#### INFORMATION ABOUT THIS PROSPECTUS AND THE GLOBAL OFFERING

Dealings in the H Shares registered on the H Share register will be subject to Hong Kong stamp duty. Please see the section headed "Taxation and Foreign Exchange" in Appendix III to this prospectus for further details.

Unless determined otherwise by us, dividends payable in Hong Kong dollars in respect of the H Shares will be paid to the Shareholders listed on the H Share register in Hong Kong, by ordinary post, at the Shareholders' risk, to the registered address of each Shareholder.

#### Professional Tax Advice Recommended

Applicants for the Hong Kong Offer Shares are recommended to consult their professional advisors if they are in any doubt as to the taxation implications of subscribing for, holding, disposing of or dealing in the H Shares, or exercising any rights attached to them. It is emphasized that none of the Company, the Joint Global Coordinators, the Sole Sponsor, the Joint Bookrunners, the Joint Lead Managers, the Underwriters, or their respective directors, officers, employees, advisors, agents or representatives, nor any other person involved in the Global Offering accepts responsibility for any tax effects on, or liabilities of, any person resulting from the subscription for, purchase, holding, disposal of, or dealing in the H Shares or exercising any rights attached to them.

#### Registration of Subscription, Purchase and Transfer of H Shares

We have instructed Computershare Hong Kong Investor Services Limited, the H Share Registrar, and it has agreed, not to register the subscription, purchase or transfer of any H Shares in the name of any particular holder unless and until the holder delivers a signed form to the H Share Registrar in respect of those H Shares bearing statements to the effect that the holder:

- (i) agrees with us and each of our Shareholders, and we agree with each Shareholder, to observe and comply with the Company Law, the Special Regulations, and the Articles of Association;
- (ii) agrees with us, each of our Shareholders, Directors, Supervisors, managers and senior officers, and we, acting for ourselves and for each of our Directors, Supervisors, managers and senior officers, agree with each of our Shareholders to refer all disputes and claims concerning the Company's business on the basis of the rights or obligations provided for in the Articles of Association, the Company Law or other relevant laws and administrative regulations to arbitration in accordance with the Articles of Association, and any reference to arbitration shall be deemed to authorize the arbitration tribunal to conduct hearings in open session and to publish its award, which arbitration shall be final and conclusive. Please see the section headed "Summary of Articles of Association" in Appendix V to this prospectus for further details;
- (iii) agrees with us and each of our Shareholders that the H Shares are freely transferable by the holders thereof; and
- (iv) authorizes us to enter into a contract on his/her behalf with each of our Directors and senior officers whereby such Directors and senior officers undertake to observe and comply with their obligations to our Shareholders as stipulated in the Articles of Association.

#### INFORMATION ABOUT THIS PROSPECTUS AND THE GLOBAL OFFERING

#### OVER-ALLOTMENT OPTION AND STABILIZATION

Details of the arrangements relating to the Over-allotment Option and stabilization are set forth in the sections headed "Structure of the Global Offering — Over-allotment Option" and "Structure of the Global Offering — Stabilization" in this prospectus, respectively.

#### PROCEDURE FOR APPLICATION FOR HONG KONG OFFER SHARES

The procedure for applying for the Hong Kong Offer Shares is set forth in the section headed "How to Apply for Hong Kong Offer Shares" in this prospectus and in the Application Forms.

#### STRUCTURE OF THE GLOBAL OFFERING

Details of the structure of the Global Offering, including its conditions, are set forth in the section headed "Structure of the Global Offering" in this prospectus.

#### H SHARES WILL BE ELIGIBLE FOR CCASS

Subject to the Stock Exchange granting the listing of, and permission to deal in, the H Shares and the Company complying with the stock admission requirements of HKSCC, the H Shares will be accepted as eligible securities by HKSCC for deposit, clearance and settlement in CCASS with effect from the date of commencement of dealings in the H Shares on the Stock Exchange or any other date HKSCC chooses. Settlement of transactions between participants of the Stock Exchange is required to take place in CCASS on the second Business Day after any trading day.

All activities under CCASS are subject to the General Rules of CCASS and CCASS Operational Procedures in effect from time to time. Investors should seek the advice of their stockbroker or other professional advisors for the details of the settlement arrangements as such arrangements may affect their rights and interests. All necessary arrangements have been made enabling the H Shares to be admitted into CCASS.

#### **MARKET SHARE DATA**

The statistical and market share information contained in this prospectus has been derived from official government publications, market data providers and other independent third party sources. We believe that sources of the information are appropriate sources for such information and reproduced the data and statistics extracted from such official government publications and other sources in a reasonably cautious manner. We have no reasons to believe that such information is false or misleading or that any fact has been omitted that would render such information false or misleading. While we have exercised reasonable care in compiling and reproducing such information unless otherwise indicated, the information has not been verified by us independently. This statistical information may not be consistent without statistical information for other sources within or outside the PRC. You should not unduly rely on such information.

#### INFORMATION ABOUT THIS PROSPECTUS AND THE GLOBAL OFFERING

#### **EXCHANGE RATE CONVERSION**

Unless otherwise specified, amounts denominated in RMB, Hong Kong dollars and US\$ have been translated, for the purpose of illustration only, in this prospectus at the following rates:

HK\$1.00 : RMB0.81748 (set by the PBOC for foreign exchange transactions prevailing on

June 12, 2018)

US\$1.00 : HK\$7.8456 (the noon buying rate in New York for cable transfers payable as set

forth in the H.10 statistical release of the US Federal Reserve Board

published on June 11, 2018)

US\$1.00 : RMB6.4031 (the noon buying rate in New York for cable transfers payable as set

forth in the H.10 statistical release of the US Federal Reserve Board

published on June 11, 2018)

No representation is made that any amounts in RMB, US\$ or HK\$ can or could have been at the relevant dates converted at the above rates or any other rates at all. Further information on exchange rates is set forth in Appendix III — "Taxation and Foreign Exchange" to this prospectus.

#### **LANGUAGE**

If there is any inconsistency between this prospectus and the Chinese translation of this prospectus, this prospectus shall prevail. Translated English names of the PRC nationals, entities (including certain of our subsidiaries), governmental authorities, institutions, departments, facilities, certificates, titles, laws, regulations and the like included in this prospectus and for which no official English translation exists are unofficial translations for your reference only. If there is any inconsistency, the Chinese name shall prevail.

#### ROUNDING

In this prospectus, where information is presented in hundreds, thousands, ten thousands, millions or hundred millions, certain amounts of less than one hundred, one thousand, ten thousand, one million or a hundred million, as the case may be, have been rounded to the nearest hundred, thousand, ten thousand, million or hundred million, respectively. Amounts presented as percentages have, in certain cases, been rounded to the nearest tenth or hundredth of a percent. Any discrepancies in any table or chart between totals and sums of amounts listed therein are due to rounding.

#### **Directors**

Name	Position	Address	Nationality
Executive Director, Chairman Meng Yanbin (孟琰彬)	Executive Director, Chairman	No. 905, Gate 34, Building 8, Fu Sheng Garden Fujian Road Hexi District Tianjin PRC	Chinese
Executive Director Wu Jian (武健)	Executive Director, General Manager	No. 15, Gate 2, Building 1, No. 1 Fuxinglu Jia Haidian District Beijing PRC	Chinese
Du Jin (杜進)	Executive Director, Chief Engineer	No. 702, Gate 1, Building 9 Dexiang Jiayuan Haidian District Beijing PRC	Chinese
Non-executive Director Zhou Liulai (周劉來)	Non-executive Director, Vice Chairman	No. 503, Unit 3, Building 2 Qingyuandongli Huang Cun Town Daxing District Beijing PRC	Chinese
Luo Qi (羅琦)	Non-executive Director, Vice Chairman	No. 23, Unit 2, Building 9, No. 21 Zijing South Road Gaoxin District Chengdu PRC	Chinese
Wang Guoguang (王國光)	Non-executive Director	No. 503, Unit 5, 7th Floor Hepingli 7 Qu Dongcheng District Beijing PRC	Chinese
Independent Non-executive Director	r		
Guo Qingliang (郭慶良)	Independent Non-executive Director	No. 5, West Chang'an Street Xicheng District Beijing PRC	Chinese
Meng Yan (孟焰)	Independent Non-executive Director	No. 1204 Building 2 Taiyueyuan Haidian District Beijing PRC	Chinese
Hui Wan Fai (許雲輝)	Independent Non-executive Director	Flat A, 9/F, Tower 6 Residence Bel-Air Island South 28 Bel-Air Ave Hong Kong	Chinese
Supervisors Zhang Qingjun (張慶軍)	Chairman of Board of Supervisors	No.1, Nansanxiang Sanlihe Xicheng District Beijing PRC	Chinese

Name	Position	Address	Nationality
	Supervisor	Building 3 Xinzhen Yongchi Road Fangshan District Beijing PRC	Chinese
Chen Shoulei (陳首雷)	Supervisor	No.1 Ma Shen Miao Haidian District Beijing PRC	Chinese
Li Guoxiang (李國祥)	Employee Representative Supervisor	No.1, Nansanxiang Sanlihe Xicheng District Beijing PRC	Chinese
Zhang Yiming (張軼名)	Employee Representative Supervisor	Room 603, Building 3, District 4, No.15 Yard Wanshou Road Jia Haidian District Beijing PRC	Chinese

Please see the section headed "Directors, Supervisors and Senior Management" for further details.

#### PARTIES INVOLVED IN THE GLOBAL OFFERING

Sole Sponsor	China International Capital Corporation Hong Kong Securities Limited 29th Floor One International Finance Centre 1 Harbour View Street Central Hong Kong
Joint Global Coordinators	China International Capital Corporation Hong Kong Securities Limited 29th Floor One International Finance Centre 1 Harbour View Street Central Hong Kong
Joint Bookrunners	CLSA Limited 18/F, One Pacific Place 88 Queensway Hong Kong  China International Capital Corporation Hong Kong Securities Limited 29th Floor One International Finance Centre
	1 Harbour View Street Central Hong Kong

#### **CLSA Limited**

18/F, One Pacific Place 88 Queensway Hong Kong

#### **ABCI Capital Limited**

11/F, Agricultural Bank of China Tower 50 Connaught Road Central Hong Kong

#### Joint Lead Managers

#### China International Capital Corporation Hong Kong Securities Limited

29th Floor One International Finance Centre 1 Harbour View Street

Central Hong Kong

#### **CLSA Limited**

18/F, One Pacific Place 88 Queensway Hong Kong

#### **ABCI Securities Company Limited**

10/F, Agricultural Bank of China Tower 50 Connaught Road Central Hong Kong

### **China Securities (International) Corporate**

**Finance Company Limited** 18/F, Two Exchange Square

Central Hong Kong

#### Legal Advisors to our Company

As to Hong Kong law and US Law

Clifford Chance 27/F, Jardine House One Connaught Place Central Hong Kong

As to PRC law

#### King & Wood Mallesons

20th Floor, East Tower World Financial Center 1 Dongsanhuan Zhonglu Chaoyang District

Beijing PRC

### Legal Advisors to the Underwriters and the Sole Sponsor

As to Hong Kong law and US Law

Norton Rose Fulbright Hong Kong

38/F, Jardine House One Connaught Place

Central Hong Kong

As to PRC law

**Jia Yuan Law Offices** F408, Ocean Plaza

158 Fuxing Men Nei Street

Xicheng District

Beijing PRC

Compliance Advisor China International Capital Corporation Hong

**Kong Securities Limited** 

29th Floor

One International Finance Centre

1 Harbour View Street

Central Hong Kong

Reporting Accountants and Auditor KPMG

Certified Public Accountants

8th Floor

Prince's Building, 10 Chater Road

Central Hong Kong

Industry Consultant Frost & Sullivan (Beijing) Inc., Shanghai Branch

Co.

Room 1018, Tower B, No. 500 Yunjin Road,

Xuhui District, Shanghai, PRC

Receiving Bank Industrial and Commercial Bank of China (Asia)

Limited

33/F., ICBC Tower, 3 Garden Road, Central

Hong Kong

#### **CORPORATE INFORMATION**

**Registered Office** Room 611, 6/F

Fuxingmenwai Street No. A2

Xicheng District

Beijing China

**Head Office** No. 1 Nansixiang

Sanlihe

Xicheng District

Beijing China

Principal Place of Business in Hong

Kong

Level 54, Hopewell Centre 183 Queen's Road East

Hong Kong

Company's Website www.china-isotope.com

(none of the information contained on the Company's

website forms part of this prospectus)

Joint Company Secretaries Mr. Wu Laishui

No. 1 Nansanxiang

Sanlihe

Xicheng District

Beijing China

Ms. Kam Mei Ha Wendy

(Fellow member of the Hong Kong Institute of Chartered Secretaries ("HKICS") and The Institute of Chartered

Secretaries and Administrators ("ICSA"))

Level 54, Hopewell Centre 183 Queen's Road East

Hong Kong

**Authorized Representatives** Mr. Meng Yanbin (chairman of the Board)

No. 905, Gate 34

Building 8, Fu Sheng Garden

Fujian Road Hexi District Tianjin

Mr. Wu Laishui (joint company secretary)

No. 1 Nansanxiang

Sanlihe

Xicheng District

Beijing China

#### **CORPORATE INFORMATION**

Audit and Risk Management Mr. Hui Wan Fai (chairman)

Committee Mr. Zhou Liulai

Mr. Meng Yan

Remuneration and Appraisal

Committee

Mr. Meng Yan (chairman) Mr. Wang Guoguang Mr. Guo Qingliang

**Nomination Committee** Mr. Meng Yanbin (chairman)

Mr. Guo Qingliang Mr. Hui Wan Fai

H Share Registrar Computershare Hong Kong Investor Services Limited

Shops 1712–1716, 17th Floor

Hopewell Centre

183 Queen's Road East

Wanchai Hong Kong

Principal Bank Industrial and Commercial Bank of China, Chang'an Branch

No. 6, Yi Xuannei Street

Xicheng District

Beijing PRC

The information and statistics presented in this section and elsewhere in this prospectus are derived from the Frost & Sullivan Report, as well as various official or publicly available publications. We believe that the sources of the information and statistics in this section are appropriate sources for such information and have taken reasonable care in extracting and reproducing such information. We have no reason to believe that such information and statistics are false or misleading or that any part has been omitted that would render such information and statistics false or misleading. Our Directors confirm that, after taking reasonable care, they are not aware of any adverse change in market information since the date of the Frost & Sullivan Report which may qualify, contradict or adversely impact the quality of the information in this section. We, the Joint Global Coordinators, the Joint Bookrunners, the Sole Sponsor, the Joint Lead Managers, the Underwriters, or their respective affiliates or advisors or any other party (excluding Frost & Sullivan) involved in the Global Offering have not independently verified, and make no representation as to, the accuracy of the information and statistics from official government or other third-party sources. Such information may not be consistent with, and may not have been compiled with the same degree of accuracy or completeness as, other information compiled within or outside the PRC. Accordingly, the official government and other third-party sources contained herein may not be accurate and should not be unduly relied upon. For a discussion of risks relating to our industry, please refer to "Risk Factors — Risks Related to Our Business and Industry" in this prospectus.

#### INDUSTRY BACKGROUND

#### **Isotopes and Radiation**

Isotopes refer to a group of nuclides with the same number of protons but different number of neutrons. Radiation refers to the emission or transmission of energy in the form of waves and particles. Radioisotopes are unstable isotopes that are radioactive. Radiation used most frequently in the radioisotope and irradiation industry are alpha-rays, beta-rays, gamma rays, X-rays and electron beam.

Radioisotope and irradiation technology utilizes physical, chemical, biological and nuclear properties of the isotope or irradiation from electron accelerator and decay of radioactive atom in various civil fields such as medicine, biology, testing, research, agriculture, chemistry and industry. Isotope and irradiation technology is an important subset of nuclear technology in addition to nuclear weapons and nuclear power technology. Scientific research on applications of isotope and irradiation technology in China started in late 1950s. After decades of development, PRC isotope and irradiation industry has become an important part of economy and radioisotope and irradiation technology has been broadly applied for medical and industrial uses in China.

#### Radiopharmaceuticals

Radiopharmaceuticals are a group of radioactive pharmaceuticals used for imaging diagnostic and therapeutic purposes. A radiopharmaceutical is composed of a radioisotope paired with a molecular agent designed to localize to specific organs and tissues. The agent then conveys a radioisotope to specific organs, tissues or cells. Radiopharmaceuticals are delivered to patients by oral administration or injection. The nuclear medicine physicians use gamma camera such as PET or SPECT to detect the radiation emitted by the radioisotopes contained in the relevant radiopharmaceuticals for diagnosis and treatment of the particular diseases.

#### **Radioactive Sources**

Radioactive sources are radioactive materials which emit ionizing radiation including alpharays, beta-rays, gamma rays, X-rays. Radioactive sources are usually sealed in a specific case or bonded to a surface. Radioactive source products could primarily be categorized into radioactive sources for medical applications and radioactive sources for industrial applications.

Medical radioactive source products are mainly for radiotherapy. Radiotherapy is a common cancer treatment aiming to kill, or shrink the size of, tumor cells. There are two types of radiotherapy, namely external radiation therapy and brachytherapy. The external radiation therapy involves delivering radiation to the patients from an external source. Advanced techniques like stereotactic radiosurgery focuses the beam continuously on the target abnormality, allowing only small amounts of radiation to the surrounding healthy tissue. In brachytherapy, a radioactive source is placed inside or next to the area requiring treatment. Brachytherapy involves the precise placement of short-range radioactive source directly at the site of the tumor.

Industrial radioactive sources are mainly used for irradiation service, non-destructive testing, and well-logging. Cobalt-60 sealed source is one of the most common industrial radioactive sources, and is widely used for gamma ray irradiation service. Other common industrial radioactive sources are iridium-192, selenium-75 and cesium-137.

#### **Irradiation Service**

Irradiation service is used to modify properties of materials and sterilize various products including food, medical products, cosmetics and traditional Chinese medicine. Irradiation sterilization enjoys various benefits such as high penetration, low energy consumption, no residual, no damage to original packaging and room temperature sterilization. There are two types of irradiation facilities in China, namely: gamma ray irradiator and electron accelerator. Gamma ray irradiators need to be filled with, cobalt-60 sealed source, which needs to be renewed periodically. Irradiation facilities are placed in specialized irradiation centers (輻照中心) that provide irradiation service, or directly housed in the production or research bases of customers for irradiation use.

#### THE PRC ISOTOPES MEDICAL APPLICATION MARKET

The medical application of isotopes in China primarily includes the imaging diagnostic and therapeutic radiopharmaceuticals, UBT kits and analyzers, RIA kits and medical radioactive source products. PRC isotopes medical application market reached RMB4,382.0 million in 2017, growing at a CAGR of 12.1% during 2013 to 2017, and is expected to grow to RMB10,634.1 million in 2022, with a CAGR of 19.4%.

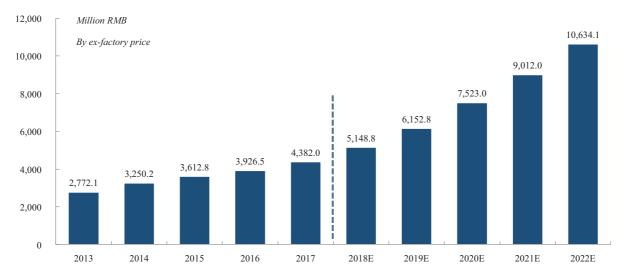
Imaging diagnostic and therapeutic radiopharmaceuticals, UBT kits and analyzers, RIA kits, and medical radioactive source products accounted for 60.4%, 26.5%, 6.9% and 2.9% of the total isotope medical application market in China in 2013, respectively. Such four segments accounted for 57.2%, 32.9%, 5.7% and 1.6% of the total isotope medical application market in China in 2017, respectively, and were expected to account for 61.2%, 33.6%, 2.7% and 1.0% of the total isotope medical application market in China in 2022, respectively.

In the US, per capita expenditure grew at a CAGR of 9.7% from RMB39.1 in 2013 to RMB56.5 in 2017. During the same period, per capita expenditure on medical application of isotopes

in China grew from RMB2.0 in 2013 to RMB3.2 in 2017, indicating a low penetration of the PRC medical application of isotopes market with significant growth potential compared with US market.

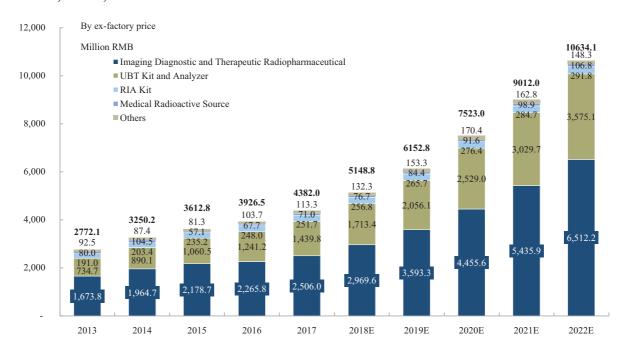
The following charts illustrates the historical and forecast market size of the isotopes medical application market in China, the historical and forecast market share of each market segment to the total isotopes medical application market in China, and the historical per capita expenditure on medical application of isotopes in the US and China:

#### Historical and Forecast Market Size of Isotopes Medical Application Market, China, 2013-2022E



Source: Frost & Sullivan

## Historical and Forecast Market Share of Market Segment to Total Isotopes Medical Application Market, China, 2013-2022E



Per Capita Expenditure, China and the US, 2013-2017



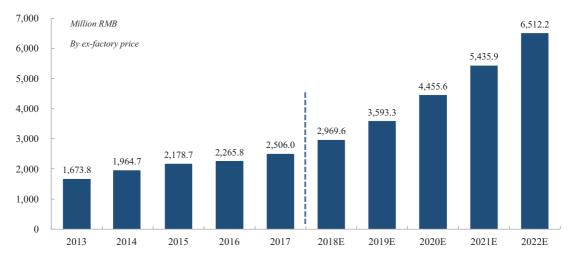
Source: Frost & Sullivan

### THE PRC IMAGING DIAGNOSTIC AND THERAPEUTIC RADIOPHARMACEUTICALS MARKET

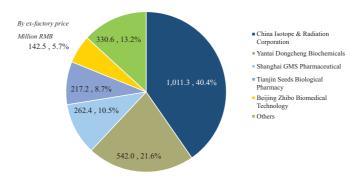
#### Market Size and Market Share

According to Frost & Sullivan, the PRC market of imaging diagnostic and therapeutic radiopharmaceuticals reached RMB2,506.0 million in 2017, growing at a CAGR of 10.6% from 2013 to 2017. The market is expected to continue to grow with a CAGR of 21.0% from 2017 to 2022 and reach RMB6,512.2 million in 2022. According to Frost & Sullivan, we were the largest manufacturer of imaging diagnostic and therapeutic radiopharmaceuticals in China, accounting for 40.4% of the market share in 2017. The following charts illustrate the historical and forecast market size and the market share of major players in the imaging diagnostic and therapeutic radiopharmaceuticals market in the PRC:

Historical and Forecast Market Size of Imaging Diagnostic and Therapeutic Radiopharmaceuticals Market, China, 2013-2022E



### Market Share of Leading Manufacturers in PRC Imaging Diagnostic and Therapeutic Radiopharmaceutical Market in 2017



Source: Frost & Sullivan

We manufacture and sell certain major imaging diagnostic and therapeutic radiopharmaceuticals in China, including iodine-125 sealed source, molybdenum-99/technetium-99m generator, technetium-99m labeled injections, fluorine-18-FDG injection, sodium iodine-131 solution and strontium-89 chloride injection. The following is a discussion of market size and our market share of such products in China.

#### Iodine-125 sealed source

Iodine-125 sealed source is primarily for treatment of prostate cancer and other tumors not suitable for surgeries, as well as for implantation treatment of residual lesions following tumor resection. According to Frost & Sullivan, the iodine-125 sealed source market increased from RMB689.6 million in 2013 to RMB939.8 million in 2017, growing at a CAGR of 8.0% from 2013 to 2017, and the market is expected to grow with a CAGR of 21.1% during the period of 2017 to 2022 and reach RMB2,447.0 million in 2022. We were the third largest manufacturer in iodine-125 sealed source market in 2017, with a market share of 21.4%.

#### Sodium iodine-131 oral solution

Sodium Iodine-131 oral solution is primarily for diagnosis and treatment of hyperthyroidism, thyroid cancer and metastatic cancer and other thyroid-related diseases. According to Frost & Sullivan, the market size of sodium iodine-131 oral solution reached RMB284.3 million in 2017, growing at a CAGR of 11.6% during the period of 2013 to 2017. The market is expected to grow with a CAGR of 22.2% during the period of 2017 to 2022 and reach RMB773.9 million in 2022. We were the largest manufacturer of sodium iodine-131 oral solution in China in 2017, with a market share of 96.9%.

#### Strontium-89 chloride injection

Strontium-89 chloride Injection is primarily used for relief of pain from late malignant tumor bone metastases caused by prostate cancer and breast cancer. According to Frost & Sullivan, the strontium-89 chloride injection market reached RMB87.2 million in 2017, growing at a CAGR of 2.1% during the period of 2013 to 2017. The market is expected to grow with a CAGR of 21.3% during the period of 2017 to 2022 and reach RMB229.4 million in 2022. We were the dominant player in the strontium-89 chloride injection market in 2017, with a market share of 97.7%.

#### Fluorine-18-FDG injection

Fluorine-18-FDG injection is primarily used for detecting and staging of tumors and the analysis of curative effectiveness, as well as diagnosis of myocardial viability (心肌活度) and brain imaging. According to Frost & Sullivan, the market size of fluorine-18-FDG injection reached RMB 203.9 million in 2017, growing at a CAGR of 12.9% during the period of 2013 to 2017. The market is expected to grow with a CAGR of 24.3% during the period of 2017 to 2022 and reach RMB604.4 million in 2022. We dominated fluorine-18-FDG injection market with the largest market share of 83.6% in 2017.

#### Technetium-99m labeled injections

Technetium-99m labeled injections is primarily used for diagnosis of diseases related to brain, vascular, myocardial, bone, liver, kidney, lymph node and lungs. According to Frost & Sullivan, the market size of technetium-99m labeled injections reached RMB146.5 million in 2017, growing at a CAGR of 31.6% during the period of 2013 to 2017. The market is expected to grow with a CAGR of 23.0% during the period of 2017 to 2022 and reach RMB412.2 million in 2022. We were the largest manufacturer of technetium-99m labeled injections in 2017, with a market share of 72.2%.

#### Molybdenum-99/Technetium-99m generator

Molybdenum-99/Technetium-99m generator is a device used to extract technetium-99m from decaying molybdenum-99. According to Frost & Sullivan, as of the Latest Practicable Date, we were the only approved manufacturer of molybdenum-99/technetium-99m generator in China. The market size of molybdenum-99/technetium-99m generator reached RMB157.8 million in 2017, growing at a CAGR of 11.2% during the period of 2013 to 2017. The market is expected to grow with a CAGR of 22.7% during the period of 2017 to 2022 and reach RMB438.6 million in 2022.

#### **Analysis of Major Raw Materials**

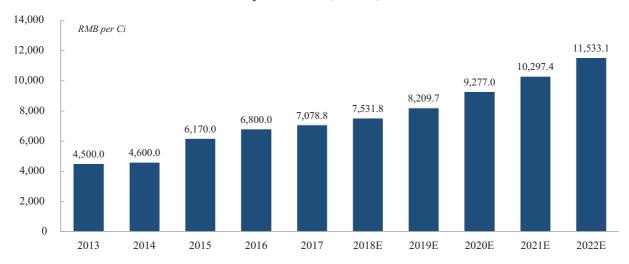
As of the Latest Practicable Date, PRC manufacturers of imaging diagnostic and therapeutic radiopharmaceuticals imported all major radioisotopes raw materials (except fluorine-18) from overseas suppliers. The following is a discussion of the historical price of major radioisotopes of our imaging diagnostic and therapeutic radiopharmaceuticals.

#### Molybdenum-99

Molybdenum-99 is the radioisotope used to produce molybdenum-99/technetium-99m generator and technetium-99m labeled injections. The major overseas suppliers of molybdenum-99 are NTP Radioisotopes SCO Ltd and Belgian National Institute for Radioelements in South Africa and Belgium, respectively. Molybdenum-99's price has experienced a substantial growth in the past five years. From 2013 to 2014, the price of molybdenum-99 remained relatively stable. However, in 2015, the price grew to over RMB6,000.0 per Ci and reached RMB7,078.8 per Ci in 2017 with a CAGR of 12.0% from 2013 to 2017. Such price increase was primarily due to (i) the change in target material used to produce molybdenum-99 from high enriched uranium-235 to low enriched uranium-235 by nuclear reactors around the world, which resulted in higher production costs, (ii) the fact that the nuclear reactor which manufactures molybdenum-99 in Canada ceased production in 2016, resulting in the decrease in the supply of molybdenum-99 and (iii) the molybdenum-99 manufacturers took in account of the costs related to the overall nuclear reactor operations and maintenance as well as

replacement or refurbishment costs of the reactor production facilities in addition to the daily operational costs, which drove up the raw materials costs of manufacturing of molybdenum-99. The following chart illustrates the historical and forecasted price of molybdenum-99 in China:

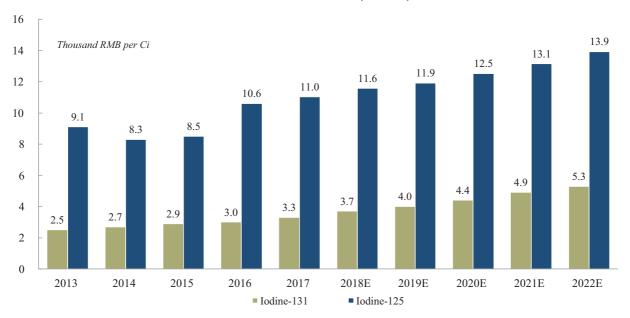
Price of Molybdenum-99, China, 2013-2022E



#### Iodine-131 and iodine-125

The price of iodine-131 and iodine-125, the radioisotopes used in the manufacturing of iodine-125 sealed source and sodium iodine-131 oral solution, is the major cost driver of the pricing of the final products. The major overseas suppliers of iodine-131 and iodine-125 are National Centre for Nuclear Research Radioisotope Centre POLATOM, NTP Radioisotopes SCO Ltd, Belgian National Institute for Radioelements and Nordion (Canada) Inc. in Poland, South Africa, Belgium and Canada, respectively. The price of iodine-131 gradually increased from RMB2,500 per Ci in 2013 to RMB3,300 per Ci in 2017. In the same period, iodine-125's price was in the range of approximately RMB8,300 and RMB9,100 per Ci from 2013 to 2015, surged to RMB11,000 per Ci in 2017. Such price increase was primarily due to the limited supply of the relevant radioisotopes and an increased demand for the final products. The supply of such radioisotope is limited primarily due to the limited number of nuclear reactors to manufacture quality radioisotopes in the world. The following chart illustrates the historical and forecasted price of iodine-131 and iodine-125 in China:

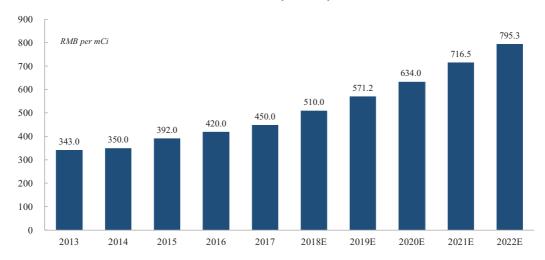
#### Price of Iodine-131 and Iodine-125, China, 2013-2022E



#### Strontium-89

Strontium-89's price has seen a stable growth trend in the past five years. The major overseas supplier of strontium-89 is Nuclear Research and Consultancy Group in Netherlands. Its price increased from RMB343.0 per mCi in 2013 to RMB450.0 per mCi in 2017 with a CAGR of 7.0%. Such price increase was primarily due to the limited supply of the relevant radioisotopes and an increased demand for the final products. The supply of such radioisotope is limited primarily due to the limited number of nuclear reactors to manufacture quality radioisotopes in the world. The following chart illustrates the historical and forecasted price of strontium-89 in China:

Price of Strontium-89, China, 2013-2022E



#### Oxygen-18

Oxygen-18 is the isotope to produce fluorine-18 which, in turn, is the major isotope of fluorine-18-FDG injection. Oxygen-18's price slightly decreased from RMB475.0 per gram in 2013 to RMB461.7 per gram in 2017. The major overseas supplier of oxygen-18 is Cambridge Isotope Laboratories, Inc. in the US. The following chart illustrates the historical and forecasted price of oxygen-18 in China:

#### RMB per g 500 475.0 475.0 464.0 461.7 461.7 457.1 452.4 443.3 442.0 433.1 400 300 200 100 0 2013 2014 2015 2016 2017 2018E 2019E 2020E 2021E 2022E

#### Price of Oxygen-18, China, 2013-2022E

#### **Market Drivers**

Increasing Incidence and Mortality of Severe Diseases: According to NHFPC's 2016 Yearbook, cancers caused 25.0% of the total deaths in urban and rural residents in 2015. In addition, the population aged 65 and above who have higher prevalence of neurodegenerative diseases has achieved 150.0 million in 2016, accounting for 10.9% of the total population in China. It is expected that such population with higher prevalence of neurodegenerative diseases will continue to grow. Compared with other medical imaging equipment, PET/SPECT scan can generate more precise imaging result and thus help provide earlier diagnosis of cancer as well as neurodegenerative disease. The large patient base indicates the huge potential for further growth of imaging diagnostic radiopharmaceuticals.

Improved Affordability: PET/SPECT scan used to be a heavy economic burden for patients and has not been widely used in China. The improved coverage of medical insurance and increased disposable income in China will increase patients' willingness to engage these services. The imaging diagnostic and therapeutic radiopharmaceuticals market is expected to develop faster in the future given its improved affordability.

**Technology Advancement:** Technology used in disease diagnosis and therapy is constantly improving. PET/SPECT imaging is able to produce a three-dimensional image of functional processes in the human body to generate more precise imaging for diagnosis purpose. The increasing use of PET/

SPECT in hospitals and other medical imaging centers could drive up the demand of diagnostic radiopharmaceuticals. Radioimmunotherapy is a type of targeted therapy which can combine a monoclonal antibody with a radioisotope that recognizes, binds and thereafter directly delivers radiation to certain parts of cancer cells, such novel medical use of radiopharmaceuticals offers patients more effective options for disease diagnosis and treatment.

*Improving Access to Nuclear Medicine:* Although large-scale public hospitals have separate nuclear medicine department, county-level hospitals seldom own nuclear medicine department. In 2015, Chinese Society of Nuclear Medicine actively advocated the plan of establishing a nuclear medicine department for each county. Consequently, the utilization of radiopharmaceuticals is expected to further boom with the improving access to nuclear medicine.

#### **Entry Barriers**

**Demanding Industrial Qualifications:** The radiopharmaceuticals industry is highly regulated in China. Compared to normal chemical drugs manufacturing, radiopharmaceuticals manufacturer is imposed more stringent requirements because of the radioactive materials used in the manufacturing process. Manufacturers of imaging diagnostic and therapeutic radiopharmaceuticals must obtain necessary permits and certificates in the PRC to produce, sell and use imaging diagnostic and therapeutic radiopharmaceuticals, including but not limited to radiation safety permit, radiopharmaceuticals production permit, radiopharmaceuticals sales permit and GMP certificates. In addition, the storage and waste treatment in connection with the manufacturing radiopharmaceuticals requires specific regulatory monitoring and processing approval.

Shortage of Raw Materials Supply: PRC manufacturers of imaging diagnostic and therapeutic radiopharmaceuticals rely on overseas suppliers of radioisotopes as their source of raw materials, which exposes them to supply risks such as shortages, unstable production etc. Overseas suppliers of radioisotopes also tend to co-operate with existing customers rather than engage with new customers which creates another supply chain risk. To ensure the stable supply of radioisotopes at a reasonable price presents a significant challenge for new entrants to the market.

High Technical Barrier: Radioisotope production relies on large nuclear reactors or cyclotrons. The construction and operation of nuclear reactors or cyclotrons involve complex techniques and are subject to rigorous regulations. In addition, imaging diagnostic and therapeutic radiopharmaceuticals manufacturing involves sophisticated nuclear technology including radioactive tracer technology, radioactive detection technology, etc. In addition, manufacturers must maintain qualified radiation proof production equipment and machinery and qualified nuclear technology professionals to operate and oversee the production process. These technology barriers also act as a significant determent against new entrants.

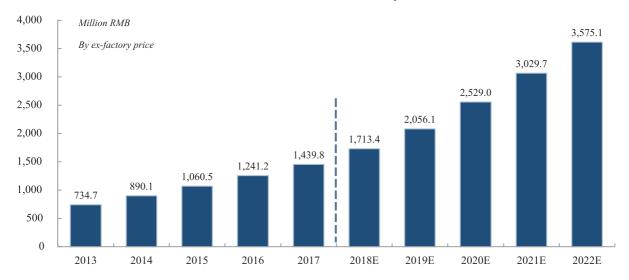
Branding Effect: Due to the aforementioned entry barriers, the radiopharmaceuticals market has the characteristic of a monopoly. Hospitals and other medical institutions are the major users of imaging diagnostic and therapeutic radiopharmaceuticals. To ensure product quality and safety, hospitals and other medical institutions usually commit to long-term suppliers of imaging diagnostic and therapeutic radiopharmaceuticals. First movers are able to establish strong brand recognition and typically become the preferred suppliers for hospitals and other medical institutions, which creates another obstacle for new entrants.

#### THE PRC UBT KITS AND ANALYZERS MARKET

#### **Market Size and Market Share**

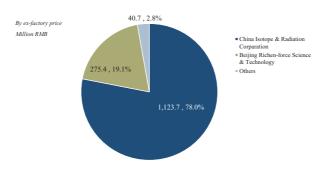
According to Frost & Sullivan, the market size of PRC UBT kits and analyzers reached RMB1,439.8 million in 2017, growing at a CAGR of 18.3% during the period of 2013 to 2017. The market is expected to grow with a CAGR of 19.9% during the period of 2017 to 2022 and reach RMB3,575.1 million in 2022. We were the largest manufacturer of UBT kits and analyzers by revenue in 2017 in China, with a market share of 78.0%. The following charts illustrate the historical and forecast market size and the market share of major players of UBT kits and analyzers in the PRC:

Historical and Forecast Market Size of UBT Kits and Analyzers Market, China, 2013-2022E



Source: Frost & Sullivan

Market Share of Leading Manufacturers in UBT Kits and Analyzers Market in 2017



Source: Frost & Sullivan

According to Frost & Sullivan, we are one of the first companies in China to engage in the research, development, manufacturing and sale of UBT kits and analyzers for the diagnosis of *H. pylori* infection in China and the only company that is capable of manufacturing both UBT kits and UBT analyzers in China as of the Latest Practicable Date, having ranked first for five consecutive years and grew at the highest rate in China UBT kits and analyzers market during the period of 2013 to 2017, at a CAGR of 20.9%.

#### **Analysis of Raw Materials**

As of the Latest Practicable Date, PRC manufacturers of UBT kits purchased carbon-13 and carbon-14 raw materials from overseas suppliers. The major overseas suppliers of carbon-13 and carbon-14 are Sigma-Aldrich Co. LLC., PerkinElmer Inc. and Moravek, Inc. in the US. The prices of carbon-13 and carbon-14, as the key isotopes for manufacturing UBT kits, are key cost drivers of the pricing of the final products. The price of carbon-14 gradually decreased from RMB445.6 thousand per Ci in 2013 to RMB418.4 thousand per Ci in 2017. In the meantime, carbon-13's price increased to RMB213.6 thousand per kg in 2017 from RMB200.1 thousand per kg in 2013. The prices of both isotopes were relatively stable from 2013 to 2017. The following chart illustrates the historical and forecasted prices of carbon-13 and carbon-14 in China:

#### 13 C, Thousand RMB per kg 14 C, Thousand RMB per Ci 452 9 448.4 445.6 439 6 434.0 438.8 431.0 450 428.2 426.8 418.4 400 350 300 252.4 242.7 235.6 250 228.8 220.0 213.6 203.4 200.1 197.1 196.9 200 150 100 50 0 2013 2014 2016 2019E 2020E 2021E 2015 2017 2018E 2022E ■Carbon-13 Carbon-14

Price of Carbon-13 and Carbon-14, China, 2013-2022E

Source: Frost & Sullivan

#### **Market Drivers**

**Rising Health Awareness:** China's steady economic growth raises patients' health consciousness and health expenditures and improves access to healthcare services, which encourages patients to attend physical examinations. As indicated by NHFPC's statistics, the number of physical examinations has grown from 344 million in 2011 to 385 million in 2015 with a CAGR of 2.8% during that period.

High Efficiency Test Method: "Fifth National Consensus on Helicobacter pylori Infection" (第五次全國幽門螺桿菌感染處理共識) specifically defined that UBT method is suitable for large-scale promotion in Helicobacter pylori screening because UBT method features non-invasive and ease of operation in practice. In comparison, invasive method has disadvantages such as poor compliance and complicated operations resulting in the limited usage among patients. As a result, UBT kit and analyzer market is believed to experience a fast development in the future.

*Increased Prevalence of Chronic Diseases:* According to Gastric Disease Investigation 2016 (中國胃病調查), the prevalence of peptic ulcer and chronic gastritis has reached 10% and 30%, respectively, in which *H. pylori* is the major pathogenic bacteria. Such prevalence will lead to an increased demand for examinations using UBT products.

#### **Entry Barriers**

High Industry Concentration: UBT kits and analyzers are products of advanced technology. As of the Latest Practicable Date, bundle sales of UBT kits and test analyzers by the same manufacturer was the main sales model in China, which further contributes to a high level of market concentration. Therefore, homogeneous products without distinct benefits or price advantages may face fierce competition.

**Shortage of Raw Materials Supply:** For UBT kits, supply of carbon-13 and carbon-14 raw materials mainly depends on importation from overseas suppliers. However, supply of raw materials from overseas suppliers is unstable and leads to price fluctuations due to foreign exchange risks. New players will find it difficult to secure the supply of carbon-13 and carbon-14.

High Technical and Regulatory Barrier: UBT products require special techniques for research and development and manufacturing. The relevant technology is highly confidential and has relatively low transparency, which may lead to the high technical barrier for new entrants. Furthermore, carbon-14 UBT kit, regulated as radiopharmaceutical in China, is facing stringent regulations like other radiopharmaceuticals. The manufacturer of carbon-14 UBT kit must obtain radiopharmaceuticals production permit, radiopharmaceuticals sales permit and radiation safety permit. Moreover, the storage and waste treatment require specialized monitoring and processing approval from regulatory bodies.

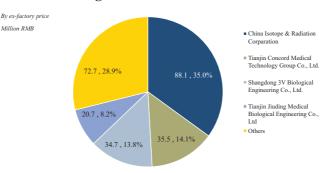
# THE PRC IN VITRO IMMUNOASSAY DIAGNOSTIC REAGENTS AND KITS MARKET The Market Size of RIA Kits

According to Frost & Sullivan, the market size of the PRC RIA kits reached RMB251.7 million in 2017, growing at a CAGR of 7.1% during the period of 2013 to 2017. The market is expected to grow with a CAGR of 3.0% during the period of 2017 to 2022 and reach RMB291.8 million in 2022. We were the largest manufacturer of RIA kits by revenue in 2017, with a market share of 35.0%. According to Frost & Sullivan, we were the earliest manufacturers specialized in the research, development, manufacturing and sales of RIA kits in China. The following charts illustrate the historical and forecast market size and the market share of major players of RIA kits in the PRC:

#### Historical and Forecast Market Size of RIA Kits Market, China, 2013-2022E



Market Share of Leading Manufacturers in RIA Kits Market in 2017

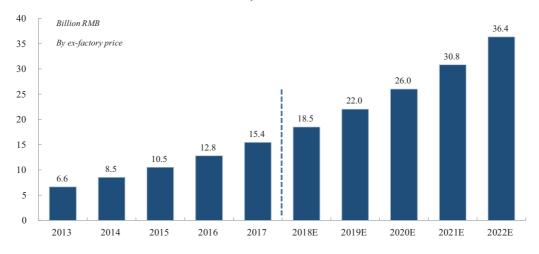


Source: Frost & Sullivan

#### The Market Size of In Vitro Immunoassay Diagnostic Reagents (Other than RIA Kits)

In vitro immunoassay diagnostic reagents in China include mainly RIA kits, EIA reagents, CLIA reagents, TRFIA reagents and colloidal gold reagents. The sales of in vitro immunoassay diagnostic reagents (other than RIA kits) reached RMB15.4 billion in 2017, with a CAGR of 23.5% during 2013 to 2017. The market is expected to reach RMB36.4 billion in 2022, representing a CAGR of 18.7% during 2017 to 2022. The following chart illustrates the historical and forecast market size of the in vitro immunoassay diagnostic reagents (other than RIA kits) in the PRC:

Historical and Forecast Market Size of In Vitro Immunoassay Reagents (other than RIA kits), China, 2013-2022E



Source: Frost & Sullivan

#### **Market Drivers**

Rapid Growth of Independent Clinical Labs: In the past, almost 90% of in vitro diagnostic tests were performed in in-house clinical laboratories at hospitals in China. Alongside the development of in vitro diagnosis technologies, small- and mid-size hospitals which lacked sufficient resources failed to upgrade their clinical laboratories with cutting-edge facilities such as immunoassay and molecular diagnostics facilities in recent years. As a result, the independent clinical labs market has recently emerged and continues to expand, further boosting the development of the immunoassay reagents market.

Increased Health Expenditure and Awareness of Early Treatment of Diseases: Total health expenditures in China has grown from RMB2,434.6 billion in 2011 to RMB4,097.5 billion in 2015, which indicates a growing demand for in vitro diagnosis. Meanwhile, rising awareness of early treatment of various diseases further increases the consumption of healthcare products and services. Thus, the in vitro diagnosis market including immunoassay reagents and kits will expand accordingly.

Aging Population and Growing Prevalence of Chronic Diseases: The population aged over 65 years old in China reached 143.9 million in 2015, accounting for more than 10% of the whole population. Due to age-related diseases, the number of Chinese residents who need in vitro diagnosis tests and related products is also growing as the population ages. In addition, unhealthy life-styles, intense work pressure and environmental pollutions led to growing prevalence of chronic diseases in China, such as cardiac disease and malignancy, which stimulates consumer demand for the in vitro diagnosis market including immunoassay reagents and kits.

#### **Entry Barriers**

High Technical Requirement: The production of immunoassay reagents and kits involves multidisciplinary expertise, including clinical medicine, biochemistry, electronics, optics, computer software, etc. Currently, few enterprises have equipped themselves with all the relevant technologies and research and development capabilities to operate in the immunoassay reagents and kits industry, without which new entrants may find it impossible to enter the industry. Immunoassay reagents usually require a high level of stability to ensure the reliability of test results, which in turn creates a high technology requirement for research and development, and production capability.

*Lack of Talents:* The immunoassay reagents and kits industry involves multiple technologies, and therefore only talents with adequate expertise and a multitude of experiences can achieve long-term success. Talent recruitment and cultivation is a long and expensive process. New entrants may find it difficult to recruit or maintain a capable research, production and marketing team.

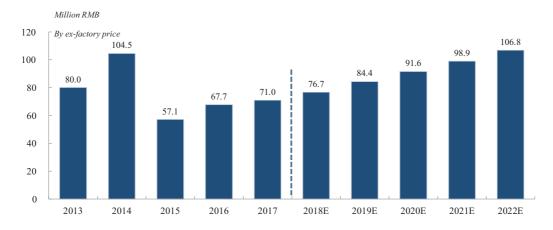
Capital-intensive Nature of the Industry: In recent years, the development of clinical medicine has accelerated the progress of immunoassay technique advancement and diagnostic performance. For immunoassay enterprises, in order to satisfy individual needs with respect to products or services from healthcare institutions, lots of capital and time will be injected into product innovation and the establishment of extensive sales networks. Consequently, without strong and ongoing capital investment, new entrants may not be able to compete with leading enterprises in the market.

#### THE PRC RADIOACTIVE SOURCES MARKET

#### **Market Size of Medical Radioactive Sources**

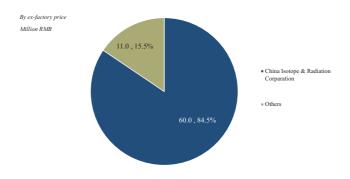
The market size of medical radioactive source was RMB71.0 million in 2017. The market is expected to reach RMB106.8 million in 2022, representing a CAGR of 8.5% during 2017 to 2022. We were the largest manufacturer of medical radioactive source in China by revenue in 2017, with a market share of 84.5%. The following charts illustrate the historical and forecast market size and the market share of major players of medical radioactive source in the PRC:

Historical and Forecast Market Size of Medical Radioactive Source Market, China, 2013-2022E



Source: Frost & Sullivan

Market Share of Leading Manufacturers in Medical Radioactive Source Market in 2017



Source: Frost & Sullivan

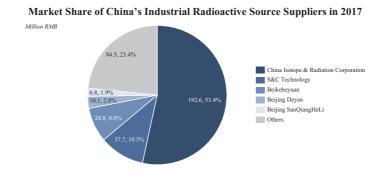
#### **Market Size of Industrial Radioactive Sources**

With a growing number of gamma ray irradiation facilities in operation, and expanding use of radioactive sources in various areas, the market size for industrial radioactive sources reached RMB360.5 million in 2017, representing a CAGR of 3.0% from 2013 to 2017. The market size of industrial radioactive sources is expected to reach RMB428.7 million in 2022, representing a CAGR of 3.5% from 2017 to 2022. Cobalt-60 sealed source for irradiation service is the key component of gamma ray irradiation facilities and needs to be refilled periodically. We were the largest industrial radioactive source supplier in China, with a market share of 53.4% by revenue in 2017. The following

charts illustrate the historical and forecast market size and the market share of major players in the industrial radioactive source market in the PRC:

Market Size of Industrial Radioactive Sources, China, 2013-2022E RMB Million 550 500 450 428.7 416.1 415.7 402.8 388.4 400 377.3 364.1 365.0 360.5 350 319.7 300 250 200 150 100 50 2013 2014 2015 2016 2017 2018E 2019E 2020E 2021E 2022E

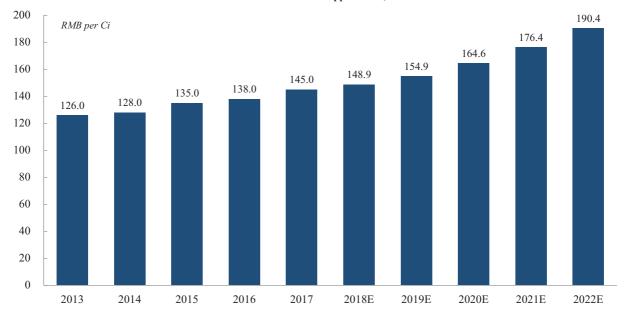
Source: Frost & Sullivan



#### **Analysis of Raw Materials**

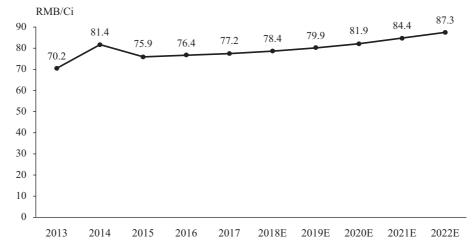
Raw radioisotopes are the major raw materials of industrial and medical radioactive source products. We purchase raw radioisotopes from overseas suppliers. Our major raw radioisotopes of medical and industrial radioactive source products include cobalt-60 for medical applications and iridium-192, respectively. The major overseas suppliers of cobalt-60 for medical applications are Joint Stock Company Isotope in Russia and Nordion (Canada) Inc., and Best Therapeutics Ltd in Canada. The major overseas suppliers of iridium-192 are National Centre for Nuclear Research Radioisotope Centre POLATOM and NTP Radioisotopes SCO Ltd in Poland and South Africa, respectively. Prices of cobalt-60 for medical application fluctuated from RMB126.0 to RMB145.0 per Ci during 2013 to 2017. Prices of iridium-192 were relatively stable from 2013 to 2017, ranging between RMB70.2 and RMB81.4 per Ci. The following chart illustrates the historical and forecasted price of cobalt-60 for medical applications and iridium-192 in China:

Price of Cobalt-60 for medical applications, 2013-2022E



Source: Frost & Sullivan

Price of Ir-192, 2013-2022E



According to Frost & Sullivan, the production capacity of cobalt-60 for both medical and industrial applications is mainly limited by the availability of the production facilities. Most of the cobalt-60 produced around the world is manufactured by pressurized heavy water reactors. In China, the production volume of cobalt-60 is limited as there are only two pressurized heavy water reactors in Qinshan No.3 Nuclear Power. Since no other pressurized heavy water reactor is under construction in China as at the Latest Practicable Date, the production capacity of cobalt-60 in China will remain stable in the foreseeable future.

There are 49 pressurized heavy water reactors in operation and four under construction around the world. The number of global production facilities of cobalt-60 will remain limited in the foreseeable future and the production capacity of cobalt-60 will not experience any significant increase based on the current development technological capacity and capability.

#### **Market Drivers**

Increased Incidence and Mortality of Cancer: Radiotherapy has shown significant efficacy and plays an increasingly important role in the treatment of cancers. According to NHFPC 2017 Yearbook, cancers accounted for 26.1% and 23.2% of the total death in urban and rural residents. The increase in the number of cancer patients drives the development of medical applications of radioactive sources.

*Improved Affordability:* Although radiotherapy using radioactive sources has shown significant improvement for cancer treatment, it is a heavy economic burden for patients and has not been widely used. The improved coverage of medical insurance and increase in disposable income in China will boost patients' willingness to accept radiotherapy. The medical radioactive sources market is expected to develop faster in the future with improved affordability.

**Technological Advances:** Technology in cancer therapy is constantly evolving. Innovative stereotactic radiosurgery uses precisely focused radiation beams to treat tumors in the brain, neck and other parts of the human body. It directs high doses of radiation at affected areas with minimal impact on surrounding tissue and thus is able to preserve more healthy tissue than traditional therapy. This provides a more effective option for disease treatment and is attracting increased attention in the market.

**Potential Application in Extensive Fields:** Applications of industrial radioactive sources are expanding. Industrial radioactive sources can be used in irradiation service, non-destructive testing and oil well-logging, etc. Extensive applications of industrial radioactive sources stimulate the upstream manufacturing market in China.

#### **Entry Barriers**

Shortage of Raw Material Supply: There are a limited number of suppliers of raw cobalt-60 for medical applications and industrial applications around the world. We partner with Qinshan No.3 Nuclear Power to secure the only domestic supply of raw cobalt-60 in China for the production of cobalt-60 sealed source for industrial applications. Manufacturers of cobalt-60 sealed source for medical applications in China have to import raw cobalt-60 from overseas suppliers. The ability to ensure a stable supply of raw materials at a reasonable price is a significant challenge for new participants in the market.

High Technological Requirements: Technological requirements for the design, manufacturing and safety control of medical and industrial radioactive sources are high. The relevant technology is usually a trade secret to a few institutions and companies around the world. Professionals with the relevant experience in the field are also limited. New entrants must be equipped with sufficient capital, assisted by a team of professionals and possess the necessary licenses and the ability to innovate in order to participate and success in the market.

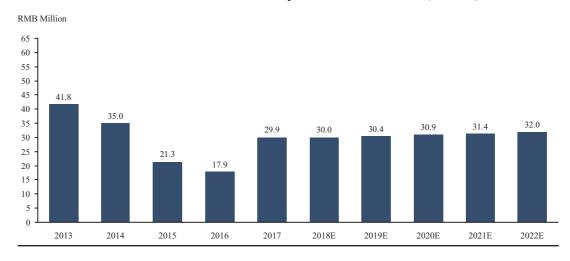
*First Mover Advantage:* At present, radioactive sources applications in hospitals are comparatively expensive. The user group is relatively small and stable, which is easy for the first mover to cultivate customer loyalty. Therefore, it is difficult for new players to enter such market.

#### THE PRC IRRADIATION MARKET

#### Market Size of EPC Service of Gamma Ray Irradiation Facilities in China

The market size of the design and installation of gamma ray irradiation facilities in China was RMB29.9 million in 2017. With the growing demand for irradiation service, the number of newly-built irradiation facilities will remain stable in the foreseeable future. In addition, as a large portion of the existing facilities are established in 1990s and 2000s require retrofitting in order to regain economies of scale and competitiveness. As a result, the market size of gamma ray irradiation facilities will grow from 2017 to 2022 with a CAGR of 1.3%. We were the largest EPC service provider for the design, manufacturing and installation of gamma ray irradiation facilities in China in terms of revenue combined from 2014 to 2017. The following charts illustrate the historical and forecast market size and the market share of major players of EPC service of gamma ray irradiation facilities in the PRC:

#### Market Size of EPC Service of Gamma Ray Irradiation Facilities, China, 2013-2022E



Source: Frost & Sullivan

Market Share of (by Revenue), China, 2015-2017

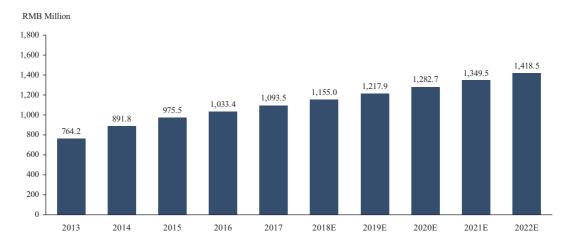
Rank	Company	(RMB in Million)	Market Share
1	Our Group	53.6	51.4%
2	Company A	50.5	48.6%
	Total Market Size	104.1	100.0%

Revenue 2014-2017

#### Market Size of Irradiation Service in China

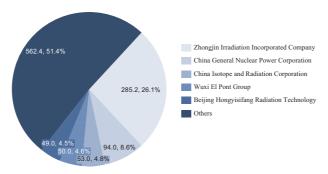
The market size of irradiation service reached RMB1,093.5 million in 2017, representing a CAGR of 9.4% from 2013 to 2017. As the benefits of irradiation for sterilization gain more recognition and the expanding category of materials applicable to be modified, the irradiation service market will continue to grow from 2017 to 2022 with a CAGR of 5.3%. We were the third largest irradiation service provider by revenue in China in 2017. The following charts illustrate the historical and forecast market size and the market share of major players of irradiation service in the PRC:

Market Size of Irradiation Service, China, 2013-2022E



Source: Frost & Sullivan

Top Five Irradiation Service Providers (by Revenue), China, 2017



#### Analysis of Raw Materials for Gamma Ray Irradiation Service

According to Frost & Sullivan, the average price of cobalt-60 sealed source for irradiation service remained relatively stable ranging from RMB18.6 per Ci to RMB22.0 per Ci from 2013 to 2017. The following chart illustrates the historical and forecasted price of cobalt-60 sealed source for irradiation service in China:

RMB per Ci 35 30 25 22.0 20.6 20.1 20.2 197 19.1 19.4 20 15 10 5 0 2014 2015 2016 2017 2018E 2019E 2022E 2013 2020F 2021E

Average Price of Cobalt-60 Sealed Source for Irradiation Service, China, 2013-2022E

Source: Frost & Sullivan

#### **Market Drivers**

**Favorable Policy Environment:** Irradiation is regarded as an advanced technology in China, as such, development of the irradiation industry has been included in multiple PRC government initiatives in recent years and an increasing number of regulations for the irradiation service market have been issued to promote and accelerate the development process.

Price of Cobalt-60 Radioactive Source

*Increasing Market Recognition:* As the irradiation technology has become increasingly mature and sophisticated in China, the safety and efficiency of irradiation have been significantly improved. As a result, irradiation service is gaining more recognition from end-users.

*High Market Potentials:* Most of the irradiation facilities in China are located in Eastern China and Southern China. The market potential of irradiation service is high in China as it is yet to be developed in the rest of China.

#### **Entry Barriers**

Qualification and Technological Barrier: The design and installation of irradiation facilities and supply of irradiation service are highly regulated in China by the MEP and other competent authorities. It requires integrated technologies and expertise with regard to irradiation technology, material technology and radiation protection. As of the Latest Practicable Date, we are two out of three companies approved by the MEP to engage in the EPC service of gamma ray irradiation facilities in China. Companies must possess the relevant and extensive industry experience as well as advanced technology to obtain the necessary qualifications from authorities. It is difficult for new entrants with little experience in the irradiation industry to obtain such qualifications.

**Talent Barrier:** The design, manufacturing, installation and operation of irradiation facilities should be managed by professionals with adequate experience in the relevant fields. It is difficult for new entrants to form a team of capable professionals within a short timeframe or at low cost.

#### REPORT COMMISSIONED FROM FROST & SULLIVAN

Frost & Sullivan, an experienced consultant in a variety of industries including the healthcare industry in the PRC, has been engaged as an independent consultant to provide the Frost & Sullivan Report for use in whole or in part in this prospectus. Frost & Sullivan prepared its report based on data released by government institutions and non-government organizations such as the CFDA, National Bureau of Statistics of China as well as data gathered by Frost & Sullivan and analysis performed by Frost & Sullivan based on the available data. Where necessary, Frost & Sullivan visits companies operating in the industry to gather and synthesize information about the market and other relevant information. The information derived from the Frost & Sullivan Report and contained herein has been obtained from sources believed by Frost & Sullivan to be reliable, but there can be no assurance as to the accuracy or completeness of the information included in this prospectus. Forecasts and assumptions included in the Frost & Sullivan Report are inherently uncertain because of events or combinations of events that cannot reasonably be foreseen, including, without limitation, the actions of government, individuals, third parties and competitors. Specific factors that could cause actual results to differ materially include, among others, risks inherent in the PRC isotope and irradiation technology industry, financing risks, labor risks, supply risks, regulatory risks and environmental concerns.

This prospectus contains information extracted from the Frost & Sullivan Report in sections such as "Industry Overview" and "Business." We paid Frost & Sullivan a fee of RMB800,000 for the preparation and update of the Frost & Sullivan Report.

#### **REGULATORY ENVIRONMENT**

Regulatory Framework and Main Regulatory Bodies regarding the Radiopharmaceuticals, Medical Devices and Radioactive Articles Industry in China

#### Regulatory Framework

As we conduct our principal business in China, we shall comply with the relevant laws and regulations of China. These laws and regulations cover areas including radiopharmaceuticals, medical devices, isotope, radioactive sources and radiation devices, recycling and reusing of radioactive articles and environmental protection. Furthermore, our business operations shall be subject to the general laws and regulations of China, such as the Securities Law, and foreign exchange, taxation and foreign investment industrial guidance policy.

As the manufacturer of radiopharmaceuticals and medical devices, we are regulated and inspected by the food and drug supervision and administration authorities at various levels in China. The competent department in charge of national defense science and technology industry under the State Council shall be in charge of the administration work concerning the radiopharmaceuticals. The competent department of environmental protection under the State Council shall be in charge of the supervisory and administrative work concerning the radiation safety and protection of radiopharmaceuticals. The Pharmaceutical Administration Law of the People's Republic of China (《中華人民共和國藥品管理法》) as amended on April 24, 2015, the Regulations for the Implementation of the Pharmaceutical Administration Law of the People's Republic of China (《藥品管理法實施條例》) as amended on February 6, 2016, Measures for the Supervision over and Administration of Pharmaceutical Production (《藥品生產監督管理辦法》) as amended on November 17, 2017 and Measures for the Administration of Radiopharmaceuticals (《放射性藥品管理辦法》) as newly amended in 2017, collectively constitute the main supervision and administration framework for manufacturing and sales of radiopharmaceuticals and medical devices in China, involving the production, marketing, registration, packaging and pricing of pharmaceuticals and other aspects.

In addition, as the manufacturer and distributor of radioactive articles, we are regulated and inspected by the environmental protection authorities at various levels and the transportation, public security and health authorities under the State Council in China. The Law of the People's Republic of China on Prevention and Control of Radioactive Pollution (《中華人民共和國放射性污染防治法》) which came into force as of October 1, 2003, the Regulation on the Administration of Transport Safety of Radioactive Articles (《放射性物品運輸安全管理條例》) which came into force as of January 1, 2010, the Safety and Protection of Radioisotopes and Radiation Devices (《放射性同位素與射線裝置安全和防護條例》) as newly amended on July 29, 2014, the Measures for the Administration of the Safety and Permission of Radioisotopes and Radiation Devices (《放射性同位素與射線裝置安全許可管理辦法》) as newly amended on December 12, 2017, the Measures for the Administration of the Safety and Protection of Radioisotopes and Radiation Devices (《放射性同位素與射線裝置安全和防護管理辦法》) which came into force as of May 1, 2011 and the Classification and Catalog of Radioactive Articles (for Trial Implementation) (《放射性物品分類和名錄》) jointly formulated by the Ministry of Environmental Protection (State Bureau of Nuclear Safety), the Ministry of Public Security, the Ministry of Transport, the Ministry of Railways, the Ministry of Public Health (currently referred to as the National Population and Family Planning Commission), the General Administration of Customs, the Civil Aviation Administration of China and the State Administration of Science, Technology and Industry for National Defense, collectively constitute the main supervision and administration framework for radioactive articles in China, involving the production, sale, transfer, use, recycling and disposal of radioactive articles and other aspects.

#### REGULATORY ENVIRONMENT

#### Main Regulatory Bodies

(a) State Food and Drug Administration (which has been consolidated to establish The State Administration of Market Regulation in March 2018) and (food) drug supervision and administration authorities in provinces, autonomous regions and municipalities directly under the central government are the main regulatory bodies which are responsible for regulating and supervising the drugs industry and radiopharmaceuticals industry in China.

The State Food and Drug Administration shall be in charge of drafting laws and regulations concerning the supervision and administration of food (including food additives, health food, similarly hereinafter) safety, drugs (including traditional Chinese drugs and ethnic drugs, similarly hereinafter), medical devices and cosmetics, and formulating the police plans and departmental rules. It also shall be responsible for organizing, promulgating and publishing the standards and classification management policies for drugs listed in national pharmacopeia and others and medical devices, and supervising the implementation; responsible for developing the Good Manufacture Practice (GMP) for the research, production, operation and use of drugs and medical devices and supervising the implementation; responsible for registration of drugs and medical devices and supervising the implementation; establishing the monitoring system for adverse drug reactions and medical device administration events, and carrying out monitoring and disposal work. The (food) drug supervision and administration authorities in provinces, autonomous regions and municipalities directly under the central government shall be in charge of supervision and administration of the drug production enterprises within the respective administrative areas, and daily supervision and administration of drug wholesale enterprises within the respective jurisdictions, and shall direct and supervise the lower level organs of (food) drug supervision and administration for carrying out of the work of supervision and administration on the Pharmaceutical Trade License (《藥品經營許可證》).

(b) The Ministry of Ecology and Environment shall be in charge of centralized supervision and administration of safety and protection work of radioisotopes and radiation devices in China.

The Ministry of Ecology and Environment is mainly responsible for the supervision and administration of nuclear security and radiation safety, formulating the relevant policies, plans and standards, participating in the nuclear accident emergency treatment and emergency treatment work of radiation environment accidents; responsible for the supervision and administration of nuclear facilities safety and radioactive source safety, as well as the supervision and administration of pollution prevention during the application of nuclear facilities and nuclear technologies and the development and utilization of electromagnetic radiation and radioactive mineral resources; responsible for the supervision and administration of the control of nuclear materials and the design, manufacturing, installation and non-destructive testing activities of civil nuclear safety facilities.

The competent departments of environmental protection under local People's Government at or above the county level and other relevant departments shall, according to the segregation of duties, implement the supervision and administration of safety and protection work of radioisotopes and radiation devices within the respective administrative areas. The State shall implement the classification administration of radioactive sources and radiation devices. According to the extent of potential hazard of radioactive sources and radiation devices to human health and environment, the radioactive sources can be classified into Categories I, II, III, IV and V; While, the radiation devices can be classified into Categories I, II and III.

#### REGULATORY ENVIRONMENT

(c) The nuclear safety regulatory department under the State Council shall be in charge of supervision and administration of nuclear and radiation safety in the transport of radioactive articles in China.

The Classification and Catalog of Radioactive Articles (《放射性物品分類和名錄》) shall be formulated by the nuclear safety regulatory department under the State Council jointly with the competent departments of public security, health, customs, transport, railways, civil aviation and nuclear industry under the State Council. The radioactive articles shall be classified into Categories I, II and III according to their characteristics and their extent of potential hazard to human health and environment. The nuclear safety regulatory department under the State Council shall conduct supervision and administration of the nuclear and radiation safety in transport of radioactive articles. The public security, transport, railways, civil aviation and other competent departments under the State Council shall, according to the segregation of duties, implement the supervision and administration of safety in the transport of radioactive articles. The competent departments of environmental protection, public security and transport under the local People's Government at or above the county level shall, in accordance with the segregation of duties, implement the supervision and administration of safety in the transport of radioactive articles within the respective administrative areas.

# Laws and Regulations concerning the Manufacturing of Pharmaceuticals and Medical Devices Drug Production License and Approval

The drugs production enterprises shall be approved and granted with the Drug Production License by the drug supervision and administration departments in provinces, autonomous regions and municipalities directly under the central government where the enterprise are located. Any enterprise without the Drug Production License is not allowed to produce drugs. In accordance with the Pharmaceutical Administration Law of the People's Republic of China (《中華人民共和國藥品管理法》) as newly amended on November 17, 2017, the drug supervision and administration departments at the provincial level shall be in charge of the issuance of the Drug Production License. The term of validity of the Drug Production License is five years and is available for renewal at least six months before the expiry of the term of validity, subject to the re-examination of the relevant departments. The relevant departments shall inspect production facilities before granting the Drug Production License and the investigation results with respect to employee wage, surrounding environment, health status, quality assurance system, management framework and facilities shall meet the required standards.

#### Medical Device Production License and Approval

In accordance with the Regulation on the Supervision and Administration of Medical Devices (《醫療器械監督管理條例》) which came into force on June 1, 2014 and were newly amended on May 4, 2017, an enterprise engaged in the production of Class II or Class III medical devices shall file an application for the Medical Device Production License with the local food and drug administration of the province, autonomous region, or municipality directly under the Central Government, and submit the required certification materials and the registration certificate of the produced medical devices. A medical device production license shall be valid for five years, and shall be subject to inspection by the relevant institutions before the renewal.

An enterprise engaged in the production of Class I medical devices shall undergo the formalities for the recordation at the local food and drug administration at the level of a districted city, and submit the required certification materials.

#### **GMP** for Drugs

GMP is an abbreviation of Good Manufacture Practice for Pharmaceutical Products (《藥品生產質量管理規範》) and represents the pharmaceutical production management and quality control standards, covering the drug quality control, organization and personnel qualifications, personnel hygiene rules, plant and equipment, inspection of materials and products, file management, production management, entrusted production, entrusted inspection, product distribution and recall and other aspects. In accordance with Good Manufacture Practice for Pharmaceutical Products (GMP) newly amended on March 13, 2017, an enterprise must held GMP certificate for the production of each category of drugs. A pharmaceutical operation enterprise shall meet the GSP requirements within the time limit stipulated by the pharmaceutical supervision and administration departments, and obtain the relevant certificate through certification. A newly established pharmaceutical production enterprise or an enterprise enlarging its business scope shall apply for certification. A pharmaceutical production enterprise rebuilding or expanding its existing plant or production lines shall reapply for GMP certificate. The GMP certificate shall be available for renewal at least six months before the expiry of its term of validity. A newly established pharmaceutical production enterprise shall apply for re-examination of its GMP certificate within three months before expiry, and after passing re-examination procedures, shall be granted with a new GMP certificate with a term of validity of five years.

#### **GMP** for Medical Devices

In accordance with the Regulation on the Supervision and Administration of Medical Devices (《醫療器械監督管理條例》) which took effective as of June 1, 2014 and were newly amended on May 4, 2017, the manufacturing enterprises of medical devices shall, depending on their own characteristics of production, set up the quality control system and ensure its effective operation in line with the GMP requirements.

#### In Vitro Diagnosis Reagents Registration Administration

In Vitro Diagnosis Reagents Registration Administrative Measures (《體外診斷試劑註冊管理辦法》) became into effect in October 2014 and newly amended in January 2017. In vitro diagnosis reagents registration procedures are as follows: the Food and Drug Administration Authorities carry out the systematical assessment regarding to the safety, effectiveness research and its results of the in vitro diagnosis to be launched commercially based on the applications of the registered applicants in accordance with the legal procedures, in order to determine whether approve the application or not. The registered applicants and the filing parties of the in vitro diagnosis shall establish quality management system relating to the R&D and production of the products and ensure its effective operations.

In vitro diagnosis Category I adopts filing management, and in vitro diagnosis Category II&III adopts registration management. For the filing of the domestic in vitro diagnosis Category I, the filing party shall submit relevant filing information to the municipal food and drug administration authorities. The domestic in vitro diagnosis Category II shall be approved by the food and drug administration authorities in provinces, autonomous regions and municipalities directly under the central government, and obtain the medical device registration certificate upon approval. The domestic in vitro diagnosis Category III shall be approved by the CFDA and obtain the medical device registration certificate upon approval.

#### Special Laws and Regulations concerning the Radioactive Drugs

#### Production and Operation of the Radioactive Drugs

The Measures for the Control of Radioactive Drugs (《放射性藥品管理辦法》), effective on January 13, 1989 and newly amended in 2017, stipulates that after completion of clinical study of a newly developed radioactive drug, the research unit must submit an application to the pharmaceuticals supervisory and administrative departments under the State Council for examination and approval. The latter shall consult the competent department in charge of national defense science and technology industry under the State Council before granting a New Drug License. Before a newly developed radioactive drug is put to production, the production unit or the research unit that holds a license for the production of radioactive drugs must submit an application together with a copy of New Drug License and sample to the pharmaceuticals supervisory and administrative departments under the State Council. After examination and verification, the pharmaceuticals supervisory and administrative departments under the State Council shall issue them document of approval.

Requirements for the setting up of enterprises to produce or sell radioactive drugs are that they must have the necessary conditions as stipulated in the Pharmaceutical Administration Law and that they must meet the essential standards of radioisotope safety and protection set by the State, and they are also required to fulfill the formalities for examination and approval of environmental impact assessment report. For enterprises engaged in production of radioactive drugs, after the examination and approval by both the competent department in charge of national defense science and technology industry under the State Council and the pharmaceuticals supervisory and administrative departments under the State Council, the pharmaceuticals supervisory and administrative departments in their province, autonomous region or municipality directly under the Central Government shall issue them "License for the Production Enterprise of Radioactive Drugs"; for enterprises engaged in operation of radioactive drugs, after the examination of the pharmaceuticals supervisory and administrative departments under the State Council and seeking advice from and approval by the competent department in charge of national defense science and technology industry under the State Council, the pharmaceuticals supervisory and administrative departments in their province, autonomous region or municipality directly under the Central Government shall issue them "License for the Business Enterprise of Radioactive Drugs". No enterprises without the license shall be permitted to engage in the production or sale of radioactive drugs.

The term of validity of "License for the Production Enterprise of Radioactive Drugs" and "License for the Business Enterprise of Radioactive Drugs" is five years. The enterprises engaged in the production or sale of radioactive drugs shall make a new application six months before the expiry to the pharmaceuticals supervisory and administrative departments.

#### Sale and Use of the Radioactive Drugs

In accordance with the Measures for the Control of Radioactive Drugs (《放射性藥品管理辦法》), when ordering these articles, the production unit of radioactive drugs must furnish a License for the Production Enterprise of Radioactive Drugs, while the business unit must present a License for the Business Enterprise of Radioactive Drugs issued by the drug supervision administrative departments at the provincial, autonomous regional or municipal (directly under the Central Government) level. As for the medical unit, they must order these drugs with a License for the Use of Radioactive Drugs issued by drug supervision administrative at the provincial, autonomous regional or the municipal (directly under the Central Government) level.

When a medical unit uses radioactive drugs, it must observe the rules formulated by the State concerning the safety and protection of radioisotope. The drug supervision administrative departments at provincial, autonomous regional or municipal (directly under the Central Government) level shall issue a certain grade of License for the Use of Radioactive Drugs according to technical skill and professional level of the radiological personnel and equipment of the medical unit. No medical unit without a license is allowed to use radioactive drugs clinically.

According to Measures for the Supervision and Administration of Circulation of Drugs (《藥品流通監督管理辦法》) which came into effect on May 1, 2017, an enterprise engaged in drug production and operation shall provide its sales personnel with the drug related laws, regulations and professional knowledge training, and establish training records in which the time, place and content of the training and personnel participated in the training shall be recorded. An enterprise engaged in drug production and operation shall or should be aware of the fact that other parties are engaged in drug production and operation without the appropriate license, and shall not provide them with drugs.

#### Laws and Regulations concerning the Recall Responsibility of Drugs and Medical Devices

#### Recall Responsibility of Drugs

In accordance with the Measures for the Administration of Drug Recalls (《藥品召回管理辦法》) which came into force as of December 10, 2007, the drug manufacturers shall gather information about the safety of drug, investigate and evaluate drugs with probable hidden safety problems and then recall drugs with hidden safety problems.

#### Recall Responsibility of Medical Devices

In accordance with the Measures for the Administration of Medical Device Recalls (《醫療器械召回管理辦法》) which will take effect on May 1, 2017, a medical device manufacturer shall establish and improve its medical device recall system, collect information about the safety of medical devices, investigate and evaluate the potential defective medical devices, and issue a timely recall on the defective medical devices in accordance with the provisions of the Measures. According to the severity of medical device defects, the recalls are divided into:

- (1) Class I Recall: The use of the medical device is very likely to cause a severe health hazard;
- (2) Class II Recall: The use of the medical device may cause or has caused a temporary or irreversible health hazard;
- (3) Class III Recall: The use of the medical device is not very likely to cause adverse health consequences, but it is still necessary to recall the device.

The medical device manufacturer shall determine recall classification according to the specific circumstances, and design and implement an appropriate recall plan based on the recall classification and the sale and use of medical device.

#### Monitoring of the Adverse Events of Medical Devices

In accordance with the Measures for the Administration of Monitoring and Revaluation of Medical Devices Adverse Events (for Trial Implementation) (《醫療器械不良事件監測和再評價管理辦法(試行)》) which came into force as of December 29, 2008, a medical device production and operation enterprise and a medical device use unit shall establish the medical device adverse event

monitoring system, designate the institution and arrange the dedicated personnel to conduct the monitoring work of adverse events of medical devices within the unit. A medical device production and operation enterprise and a medical device use unit shall establish and keep the monitoring records of adverse events of medical devices. The records shall be kept for two years subsequent to the marked term of validity of the medical device, but the term of records retention shall be not less than five years. A medical device production and operation enterprise shall report any medical device adverse events revolving the products it manufactured or operated which caused or may cause serious injury or death. A medical device use unit shall report any medical device adverse events revolving the medical devices it used which caused or may cause serious injury or death. The report of medical device adverse events shall be on a "when in doubt-report" basis.

# The Regulatory System concerning the Centralized Procurement and Sales of Drugs and Medical Devices

#### Centralized Drug Bidding System for the Public Medical Institutions

The Guiding Opinions on the Reform of the Urban Medical and Health Care System (《關於城鎮醫藥衛生體制改革的指導意見》), implemented from February 21, 2000, aims to regulate the drug procurement activities of medical institutions. The centralized drug bidding procurement pilot shall be conducted in accordance with the Bidding Law of the People's Republic of China. The medical institution as the behavioral agent of bidding procurement can entrust bidding agency for the execution of bidding procurement, and the tenderee who has the capacity to formulate bid-invitation documents and organize bid evaluations may organize bidding procurement on its own initiative. There shall not be any relationship of subordination or other interest between the bidding agency, as recognized by the drug supervision and administration department in conjunction with the Ministry of Public Health, and the administrative departments. The centralized bidding procurement activities shall stick to the principles of openness and fairness.

In accordance with the Provisions on Centralized Drug Bidding Procurement Pilot of Medical Instructions (《醫療機構藥品集中招標採購試點工作若干規定》), implemented from July 7, 2000, and Notice concerning the Further Improvement of Centralized Drug Bidding Procurement Work in Medical Instructions (《關於進一步做好醫療機構藥品集中招標採購工作的通知》), implemented from August 8, 2001, the non-profiting medical institutions organized by the People's Government at or above county level must conduct centralized drug bidding procurement activities. For medical institution which independently organize the activities of centralized drug bidding procurement, its qualification of formulating bid-invitation documents and organizing bid evaluations shall be recognized and approved by the health administrative departments at or above the district level. The medical institutions at county level shall participate in the centralized drug bidding procurement activities organized by the relevant departments at the provincial or district level. The Guiding Opinions of the General Office of the State Council on Improving Centralized Drug Bidding Procurement Work in Medical Instructions (《國務院辦公廳關於完善公立醫院藥品集中採購工作的指導意見》), implemented from February 9, 2015, has further clarified the direction of online centralized drug procurement activities with a province (district, municipality) as a unit, and implemented the policies of "one platform, upper and lower linkage, open and transparent, procurement based on classification", and adopted the measures of "production enterprises participated in the bidding, combination of bidding and procurement, quantity-based pricing, double-envelope system and whole-process monitoring", so as to strengthen comprehensive regulation of the whole drug procurement process and ensure the quality and supply of drugs, and further improves the double-envelope evaluation method. The drug bidding enterprises must prepare both the economic and technical bidding document and the commercial bidding document.

#### **Drug Pricing Control**

In accordance with the Notice concerning the Improvement of the Pricing Administration of Low-cost Drugs (《關於改進低價藥品價格管理有關問題的通知》), implemented from April 26, 2014, setting the highest retail price of low-cost drugs by the government shall be canceled, and the pricing mode shall be changed to independently pricing by an enterprise within the average daily cost standard, and an enterprise shall set up the low-cost drugs list entry and exit mechanism. The local drug price control departments shall conduct the monitoring of production cost and actual sales price of low-cost drugs, and especially focus on the monitoring of exclusively produced drugs or monopolistic drugs.

accordance with the Opinions on Promoting In the Drug Pricing Reform (《推進藥品價格改革的意見》), implemented from June 1, 2015, save for the narcotic drugs and the psychotropic drugs of category I, the drug price originally set by the government shall be canceled since June 1, 2015. While, the National Development and Reform Commission shall still temporarily implement the highest ex-factory price and highest retail price management for the narcotic drugs and the psychotropic drugs of category I. After the cancelation of pricing control, the drug price is mainly dependent on the market competition. The government shall strength the regulation of medical institutions through establishing the centralized procurement system and medical insurance reimbursement standards.

#### Two-invoice System

In accordance with the Major Tasks in Deepening the Medical and Health System Reform in 2016 (《深化醫藥衛生體制改革2016年重點工作任務》) promulgated by the State Council on April 21, 2016, we shall comprehensively establish and implement the two-invoice system, i.e. the information traceability mechanism for drug ex-factory price which means issuing an invoice from drug production enterprise to circulation enterprise and issuing an invoice from circulation enterprise to medical institution, with a view to reducing the intermediate links of drug circulation and making the price more transparent.

The Opinions on the Implementation of a Two-invoice System in Public Medical Institutions' Procurement Trial Implementation) (《關於在公立醫療機構藥品採 Drug (for 購中推行"兩票制"的實施意見(試行)》), implemented from December 26, 2016, has further clarified that a wholly owned or holding commercial company only engaged in the sale of drugs of its own enterprise (group) (only one commercial company across the country), and a domestic general agency for foreign drugs (only one general agency across the country) established by a drug production enterprise or a group enterprise undertaking integrated operation of science, industry and trade shall be regarded as a production enterprise. Drug allocation to its wholly owned (holding) subsidiaries by a drug circulation group enterprise or drug allocation among the wholly owned (holding) subsidiaries shall not be deemed as one invoice, but allowed to issue one invoice at most. The public medical institutions shall constantly implement the "two-invoice system" and other medical institutions are encouraged to implement the "two-invoice system" in the drug procurement activities. The pilot provinces (districts, municipalities) of comprehensive healthcare reform and the pilot cities of the public hospital reform shall take the lead in the implementation of "two-invoice system", and other regions are encouraged to implement the "two-invoice system", thereby fully implementing such system throughout the country by 2018.

#### The Mechanism of Commercial Bribery Records in the Field of Drug Sales

In accordance with the Provisions on the Establishment of Commercial Bribery Records in the Purchase and Sale of Drugs (《關於建立醫藥購銷領域商業賄賂不良記錄的規定》) which came into force as of March 1, 2014, when a medical and health institution enter into a procurement contract with a pharmaceutical production and operation enterprise and its agent, it shall also enter into a probity purchase and sale contract, which shall clearly state the name of designated sales representative, and stipulate that the commercial bribery behavior is banned, and if breached, the one will be included in the blacklist of commercial bribery. For a pharmaceutical production and operation enterprise and its agent included in the blacklist of commercial bribery for one time, the public medical institutions and the medical and health institutions financed by government funds in local province shall not purchase the drugs, medical devices and medical consumables from it within two years after publishing the blacklist, and the public medical institutions and the medical and health institutions financed by government funds in other regions at provincial level shall conduct score reduction for the breached enterprise in bidding and procurement evaluation within two years. For an enterprise and its agent included in the blacklist of commercial bribery for twice within five years, all public medical institutions and the medical and health institutions financed by government funds shall not purchase the drugs, medical devices and medical consumables from it within two years.

#### Laws and Regulations concerning the Transport of Radioactive Articles

#### Transport of Radioactive Articles or Drugs

In accordance with the Regulation on the Administration of Transport Safety of Radioactive Articles (《放射性物品運輸安全管理條例》) which came into force as of January 1, 2010, the units which are involved in the production, sale, use or disposal of radioactive articles may apply for the qualification of non-operational road transport of hazardous goods to the local road transport administration authorities of the People's Government at the level of a districted city according to the requirements of the Regulation of the People's Republic of China on Road Transport (《中華人民共和國道路運輸條例》). The units which are involved in the production, sale, use or disposal of radioactive articles are prohibited from posting the radioactive articles of Category I and Category II. The postage of radioactive articles of Category III must be conducted in accordance with the relevant requirements of the administration departments of postal services under the State Council.

In accordance with the Measures for the Administration of the Safety and Permission of Transport of Radioactive Articles (《放射性物品運輸安全許可管理辦法》) which came into force as of November 1, 2010, the units which independently transport radioactive articles of their own units and the operating units of radioactive wastes at the provincial, autonomous regional or municipal (directly under the Central Government) level which are engaged in the radioactive goods transportation in the process of acceptance and storage of radioactive wastes shall obtain the qualification of non-operational road transport of hazardous goods.

The Classification and Catalog of Radioactive Articles (《放射性物品分類和名錄》) jointly formulated by the Ministry of Environmental Protection (State Bureau of Nuclear Safety), the Ministry of Public Security, the Ministry of Transport, the Ministry of Railways, the Ministry of Public Health (currently referred to as the National Population and Family Planning Commission), the General Administration of Customs, the Civil Aviation Administration of China and the State Administration of

Science, Technology and Industry for National Defense requires that, the following radioactive articles shall be waived from in compliance with the transport regulatory requirements:

- (a) Radioactive articles which have become a component of means of transportation;
- (b) Radioactive articles which are conducted within the units and not involved in the road or railway transportation;
- (c) Radioactive articles which are implanted or injected into the human body or the bodies of live animals for diagnosis or therapy purposes;
- (d) Consumer goods containing weak radioactive substance which have been approved by regulatory authorities and sold to end users; natural objects and ore containing natural radionuclides, which are in the natural state or are processed not only for the purpose of the extraction of radionuclide, and are not intended for use after processing. Moreover, the specific radioactivity of such articles is not more than 10 times of the specific radioactivity limit of exempted articles;
- (e) Non-radioactive solid materials with surface pollution that meet the following limits: for  $\beta$  and  $\gamma$  generators and low toxic  $\alpha$  generators, its level of radioactivity is less than 0.8Bq/cm2; for all other  $\alpha$  generators, its level of radioactivity is less than 0.08Bq/cm2.

#### Consignment of Radioactive Articles

The consignor shall entrust the carrier with the qualifications of transport of radioactive articles to transport the radioactive articles.

When consigning the radioactive articles of Category I, the consignor shall prepare nuclear and radiation safety analysis report in connection with the transport of radioactive articles and submit the report for examination and approval by the nuclear safety regulatory department under the State Council. The nuclear and radiation safety analysis report in connection with the transport of radioactive articles of Category I shall be valid for five years. When the nuclear and radiation safety analysis report needs to be renewed at the expiry of its, the consignor shall, six months before the expiry of such report, submit a written application for renewal to the nuclear safety regulatory department under the State Council.

#### Transport Containers for Radioactive Article

In accordance with the Regulation on the Administration of Transport Safety of Radioactive Articles (《放射性物品運輸安全管理條例》), when transporting the radioactive articles, special transport packaging containers for radioactive articles shall be used. For the units which are involved in the production, sale, use or disposal of radioactive articles of Category I, an entity using transport containers for radioactive articles of Category I shall also conduct safety performance evaluation once every two years on the transport containers for radioactive articles of Category I used by it, and file the evaluation results with the nuclear safety regulatory department under the State Council for archival purpose.

# Laws and Regulations concerning Isotope, Radioactive Sources and Radioactive Radiation Devices

#### Warning Signs of Radioactive Substances

The Measures for the Control of Radioactive Drugs (《放射性藥品管理辦法》) stipulates that the radioactive drugs must bear the prescribed mark.

In accordance with the Law of the People's Republic of China on Prevention and Control of Radioactive Pollution (《放射性污染防治法》) which came into force as of October 1, 2003, the obvious radioactivity identification and the warning statements in Chinese shall be set for the radioactive substance and radiation devices. At a place where radioactive substance and radiation devices are produced, sold, used, stored or disposed, and on the means of transportation of radioactive substance and radiation devices containing any radioactive source, an obvious radioactivity mark shall be set.

The Regulation on the Safety and Protection of Radioisotopes and Radiation Devices (《放射性同位素與射線裝置安全和防護條例》), which came into force as of December 1, 2005, stipulates that, an obvious radioactivity mark shall be set for a place where radioisotope and radiation devices are produced, sold, used and stored in accordance with the relevant national regulations, and the safety and protective facilities and necessary protective safety interlock system, alarm device or work signal shall be set for its entrance in accordance with the requirements of the relevant national safety and protection standard. The security measures for prevention of mis-operation and prevention of accidental exposure to radiation of workers and the public shall be adopted for a place for production reconditioning and use of radiation devices. The obvious radioactivity identification and the warning statements in Chinese shall be set for the packaging containers for radioisotope and the equipment and radiation devices containing radioisotope; the radioactivity identification shall also be set for radioactive sources if available. An obvious radioactivity mark or danger signal shall be set for the means of transportation of radioisotope and radiation devices containing any radioactive source in accordance with the relevant national regulations.

#### Radiation Safety Permit

The Law of the People's Republic of China on Prevention and Control of Radioactive Pollution (《放射性污染防治法》) stipulates that, an entity producing, selling or using radioisotope and radiation devices shall, in accordance with the relevant provisions of the State Council on prevention of radioactivity from the radioisotope and radiation devices, apply to obtain a permit and go through the registration procedures accordingly. An entity transferring or importing radioisotope and radiation devices or an entity equipped with radioisotope instruments shall go through the relevant formalities in accordance with the relevant provisions of the State Council on prevention of radioactivity from the radioisotope and radiation devices.

The Regulation on the Safety and Protection of Radioisotopes and Radiation Devices (《放射性同位素與射線裝置安全和防護條例》) stipulates that, a permit shall be valid for five years. If the term of validity of a permit needs to be renewed at the expiry of it, the entity holding the permit shall, 30 days prior to the expiry of the term of validity of such permit, submit an application for renewal to the original permit-issuing authority.

The Measures for the Administration of the Safety and Permission of Radioisotopes and Radiation Devices (《放射性同位素與射線裝置安全許可管理辦法》), newly amended on December 12, 2017, stipulates that, before the application for a permit, the radiation work unit shall organize the formulation of or fill in environmental impact assessment (EIA) documents, and in accordance with the procedures prescribed by the State, submit the EIA documents to the competent department of environmental protection for approval. The environmental impact report or environmental impact statement described in the EIA documents shall be prepared by the institutions with corresponding qualification of environmental impact evaluation. A unit shall implement classification management for the EIA documents according to the requirements of the safety and protection of radioisotopes and

radiation devices and the extent of impact to the environment. The preparation of the EIA documents is not required for activities of transfer of radioisotopes and radiation devices.

#### Transfer of Radioactive Sources

The Regulation on the Safety and Protection of Radioisotopes and Radiation Devices (《放射性同位素與射線裝置安全和防護條例》) stipulates that, an entity producing radioisotopes shall maintain an account book of radioisotope products, and in accordance with the coding rules of the competent department of environmental protection under the State Council, uniformly code its produced radioactive sources. The account book of radioisotope products and the coding list of radioactive sources shall be filed with the competent department of environmental protection under the State Council. The produced radioactive sources shall have clear labels and necessary descriptive documents. In particular, the labels of Class I, Class II and Class III radioactive sources shall be engraved on the bodies or the sealed shells of radioactive sources, and the labels of Class IV and Class V radioactive sources shall be recorded in the corresponding descriptive documents. The competent department of environmental protection under the State Council shall be responsible for establishing a radioisotope filing information management system to share information with the relevant departments. The radioisotopes not included in the product account book and uncoded radioactive sources shall not leave factory and be sold.

#### Recycling of Radioactive Sources

The Law of the People's Republic of China on Prevention and Control of Radioactive Pollution (《放射性污染防治法》) stipulates that, an entity producing or using radioisotope or radiation devices shall, in accordance with the provisions of the competent administrative department of environmental protection under the State Council, collect, pack and store the radioactive wastes it generates. An entity producing radioactive sources shall, in accordance with the provisions of the competent administrative department of environmental protection under the State Council, recycle and utilize waste radioactive sources.

The Regulation on the Safety and Protection of Radioisotopes and Radiation Devices (《放射性同位素與射線裝置安全和防護條例》), which came into force as of December 1, 2005, stipulates that, if an entity engaged in the production or import of radioactive sources sell the radioactive sources of Class I, Class II and Class III to any other entity for use, such entity shall enter into a waste radioactive sources recycling agreement with the entity using them.

#### Emission and Safety Management of Radioactive Wastes

The Law of the People's Republic of China on Prevention and Control of Radioactive Pollution (《放射性污染防治法》) stipulates that, an entity generating radioactive waste liquid must, in accordance with the requirements of the national standards on the prevention and control of radioactive pollution, dispose or store the radioactive waste liquid which shall not be discharged to the environment. An entity generating radioactive solid wastes shall, in accordance with the provisions of the competent administrative department of environmental protection under the State Council, deliver the radioactive solid wastes it generates to the entity disposing the radioactive solid wastes for disposition after having them treated, and shall assume the disposition expense.

In accordance with the Regulations on the Safety Management of Radioactive Waste (《放射性廢物安全管理條例》) which came into effect on Mach 1, 2012, China adopts the classified

management of radioactive waste. According to the characteristics and the potential hazardous exposure of the human health and environment, radioactive wastes are divided into high-level radioactive waste, medium-level radioactive waste and low-level radioactive waste. Entities of utilization of nuclear technology shall conduct relevant treatment procedures of the liquid radioactive waste (which was generated but couldn't be discharged after purifications), and then transformed to solid radioactive waste. Entities of utilization of nuclear technology shall deliver disused radioactive sources and other solid radioactive wastes generated by them to any qualified entity for centralized storage, or to a solid radioactive waste disposing entity possessing the applicable licenses for disposal.

#### **DESCRIPTION OF SANCTIONS LAWS**

#### **United States**

The Office of Foreign Assets Control ("OFAC") of the US Department of the Treasury is responsible for the administration of a variety of statutes, Executive Orders, and their respective regulations imposing economic sanctions to further the foreign policy and national security objectives of the United States. OFAC works with various federal and state regulatory agencies, as well as foreign governments, to pursue compliance. Generally, US economic sanctions seek to deprive targets of the use of their assets and/or to deny them the benefits of trade and commerce with the United States. UN sanctions are implemented in the United States under the United Nations Participation Act ("UNPA").

OFAC programs generally apply globally to "US Persons" defined as: (a) US citizens and permanent residents, wherever located; (b) persons within the United States; and (c) entities organized under US law, including foreign branches. The Iran and Cuba sanctions programs also apply to non-US entities that are owned or controlled by US persons. Depending on the facts of the particular transaction, other relevant statutes or legal theories may broaden the jurisdictional reach of OFAC sanctions. Non-US persons also have compliance obligations under OFAC sanctions programs to the extent that they involve US persons, the US financial system, or US-origin goods in transactions involving US Sanctioned Countries or Sanctions Targets.

OFAC's comprehensive jurisdiction-based sanctions programs generally prohibit US Persons from directly or indirectly engaging in or facilitating any transactions that directly or indirectly involve: (i) Sanctioned Countries (ii) governments of Sanctioned Countries, (iii) individuals or entities on an OFAC sanctions list such as the Specially Designated Nationals and Blocked Persons List (the "SDN List") other than the entities on OFAC Sectoral Sanctions Identification List (the "SSI List").

OFAC also imposes limited jurisdiction-based sanctions on certain companies in specified sectors of the Russian economy. These entities are included in the SSI List. The Russian sectoral sanctions do not impose comprehensive restrictions or blocking requirements on transactions involving the designated companies, but rather only restrict certain specified dealings by US persons or involving the US financial system with these companies, as well as any companies owned 50% or more by them.

The US also imposes extraterritorial sanctions against Iran (and to a lesser extent against Syria and North Korea) under a number of different statutes, executive orders, and regulations that seek to deter non-US persons from engaging in a range of Iran-related activity. The State Department has primary authority for designating (i.e., targeting) non-US individuals and corporations under these sanctions (with the exception of non-US financial institutions, over which OFAC has primary designation authority). These extraterritorial sanctions differ from the other jurisdiction-based OFAC sanctions because they do not impose compliance requirements under the authority of US criminal or

administrative law. In general, US law enforcement jurisdiction does not extend to the type of entirely non-US conduct by non-US persons that the extraterritorial sanctions measures seek to deter. Thus, a non-US person does not violate US law, in any traditional legal sense, by engaging in non-US conduct proscribed by US extraterritorial sanctions measures. Rather, such conduct exposes the non-US person to potential US retaliation, through a range of potential sanctions measures intended to restrict US market access.

In broad general terms, US law authorizes US extraterritorial sanctions measures against Iran in connection with activity related to Iran's energy, petrochemical, automotive, shipping, shipbuilding, port operating, and financial sectors, as well as any activity involving OFAC-listed Iranian SDNs, persons on the United Nations Consolidated List, agents and affiliates of the Islamic Revolutionary Guard Corps, and activity related to weapons of mass destruction proliferation or terrorism. In addition, OFAC has authority to impose sanctions on non-US persons that engage in or facilitate violations of human rights in Iran or conduct deceptive transactions that seek to evade international sanctions against Iran. Under the Joint Comprehensive Plan of Action (the "JCPOA"), OFAC has suspended all of the nuclear-related secondary sanctions against Iran, including sanctions targeting Iran's energy, petrochemical, automotive, shipping, shipbuilding, port operating and financial sectors. However, non-nuclear related secondary sanctions targeting Iranian SDNs designated under OFAC's terrorism, ballistic missile proliferation, and human rights-related sanctions programs remain in place. Among other things, the remaining US extraterritorial sanctions against Iran authorize the President to impose sanctions on any non-US entity that knowingly materially assists, sponsors, or provides support for, or goods or services in support of, the Iran's Revolutionary Guard Corps or any of its officials, agents, or affiliates whose property and interests in property are blocked or any non-US entity that engages in significant transactions with IRGC or any of its officials, agents or affiliates. We refer to the activities that create designation risk under US extraterritorial sanctions as "Sanctionable Activity." The impact of a designation can vary depending on the measures authorized and actions taken under the applicable sanctions, but in extreme cases could include an SDN designation blocking the assets not only of the designated person but any entities owned 50 percent or more by the designated person.

On August 2, 2017, the US enacted the Countering America's Adversaries Through Sanctions Act ("CAATSA"). In relation to Russia, CAATSA: (i) codifies existing US sanctions against Russia, (ii) modifies the sectoral sanctions to reduce the maximum permissible maturity of new debt that can be extended to certain SSI List entities, (iii) expands the scope of the sectoral sanctions targeting Russian deepwater, Arctic, or shale projects that have the potential to produce oil to also cover projects outside Russian territory if the project is owned by a Directive 4 SSI List entity or such an entity has a 33% or greater non-controlling interest, and (iv) introduces new secondary (*i.e.*, extraterritorial) sanctions targeting certain activity in Russia by non-US persons such as investing in Russian energy export pipelines or in the privatization of Russia state-owned assets in a manner that unjustly benefits Russian government officials or their family members. Although the new secondary sanctions are referred to as "mandatory," in fact, the imposition of the sanctions by the President is discretionary and the President does not have to impose the sanctions if he makes a written determination that the waiver of the mandatory sanctions is in the vital national security interests of the United States.

CAATSA also targets Iran's ballistic missile development program, but does not change the nuclear-related secondary sanctions that were lifted under the JCPOA. Lastly, CAATSA increases the list of activities that can trigger "mandatory" secondary sanctions. For Iran, these include: (i) engaging in activity contributing to Iran's ballistic missile or WMD programs and (ii) engaging in activities contributing to the supply or military materials or related technical advice to Iran.

For North Korea, the additional activities triggering "mandatory" secondary sanctions include: (i) acquiring from North Korea of certain valuable metals or minerals, (ii) providing aviation or jet fuel to North Korea, (iii) providing support involving the operations of designated vessels or aircraft, (iv) facilitating the registration or insurance of vessels controlled by the North Korean government, (v) maintaining correspondent accounts with North Korean financial institutions, and (vi) employing North Korean laborers.

#### **European Union**

The EU also imposes economic sanctions in relation to certain countries including, but not limited to, Egypt, Iran, Iraq, Libya, Russia, Sudan, Tunisia and Yemen. EU sanctions apply: (i) within the territory of the EU, including its airspace; (ii) on board any aircraft or any vessel under the jurisdiction of an EU Member State; (iii) to any person inside or outside the territory of the EU who is a national of a Member State; (iv) to any legal person, entity or body, inside or outside the territory of the EU, which is incorporated or constituted under the law of a Member State; and (v) to any legal person, entity or body in respect of any business done in whole or in part within the EU. Persons and entities to whom EU sanctions apply are referred to hereafter as "EU Persons."

Under the EU's Common Foreign and Security Policy, the EU may introduce sanctions either on an autonomous basis (to implement an EU Council Decision which defines the EU's approach to a particular matter, such as the imposition of restrictions against a country or group), or to implement sanctions imposed by the UNSC uniformly across all Member States. EU sanctions are imposed through Council and Commission regulations, which are directly applicable in the 28 Member States of the EU.

Under the EU's sanctions regimes, defined activities involving countries, territories, persons, entities or bodies subject to the EU sanctions are either prohibited or require approval from a competent authority of a Member State. EU sanctions typically comprise restrictions on dealings or investment involving certain industrial or business sectors, trade in certain goods and services, embargoes on arms and related technology, asset freezes, and prohibitions on making funds or economic resources available, directly or indirectly, to or for the benefit of listed individuals and entities specifically identified by the EU sanctions. EU sanctions may also prohibit the provision of technical assistance, brokering services and/or financing or financial assistance in support of prohibited activities. EU sanctions prohibitions are generally defined by reference to both direct and indirect activity. In addition, EU sanctions generally include anti-circumvention provisions, which prohibit EU Persons from participating, knowingly and intentionally, in activities the object or effect of which is, directly or indirectly, to circumvent the EU sanctions measures.

The EU imposes sanctions in relation to all of the Sanctioned Countries with the exception of Cuba. The EU also imposes sanctions in relation to other Targeted Countries. In general, all of the EU's sanctions regimes contain at least some of the above-mentioned categories of restrictions, in particular, asset freezes, and prohibitions on making funds or economic resources available to or for the benefit of listed persons and entities.

With effect from January 16, 2016 ("**Implementation Day**"), most of the EU's nuclear-related sanctions against Iran were lifted and others were amended. EU Sanctions imposed in light of the human rights situation in Iran, support for terrorism and the Iranian ballistic missile program remain in place. Moreover, in the event of a significant non-performance by Iran of its commitments under the JCPOA, the EU could reintroduce the lifted EU Sanctions (i.e. there would be a "snapback").

EU sanctions relating to Ukraine and Russia contain some of the categories of restrictions described above, but also EU Sectoral Sanctions which include (i) restrictions on access to the capital markets for listed Russian financial institutions and military and energy companies, and defined entities associated with them; (ii) a prohibition on the provision of certain new loans or credit to listed Russian financial institutions and military and energy companies, and defined entities associated with them; (iii) restrictions on the sale, supply, transfer or export, directly or indirectly, of listed items relating to the oil industry, to Russia or for use in Russia; (iv) a prohibition on the sale, supply, transfer or export, directly or indirectly, of dual-use goods and technology, to Russia, or for use in Russia, if the items are or may be intended for military use or for a military end-user; and (v) restrictions on the provision, directly or indirectly, of certain services related to the supply of arms and military equipment to Russia or for use in Russia. There are also prohibitions on the provision of technical assistance, brokering services, financing and financial assistance in support of certain prohibited activities.

Whilst EU sanctions regulations are directly applicable in Member States, each Member State sets the penalties for breaches of EU sanctions, generally through national legislation. In some Member States, national legislation creates criminal offenses and may further elaborate on activities which will be regarded as being contrary to the EU regulations. In the UK, for example, breaches of EU sanctions prohibitions will generally be criminal offenses; in addition, the circumvention of a prohibition in the EU regulations will also be a criminal offense, as will participating in activities which "enable" or "facilitate" a contravention.

In order to fully assess EU sanctions risk, it would be necessary to consider not only the terms and effect of EU sanctions regulations, but also the domestic legislation in a relevant Member State defining offenses and governing penalties for breaches of EU sanctions, as well as enforcement policy and practice in a relevant Member State. It would also be necessary to consider applicable Member State legislation which may be engaged by the particular circumstances of a transaction or activity (for example, export controls, anti-money laundering regulations etc.). Only EU sanctions regulations are discussed in this prospectus.

#### Australia

Australia operates a dual sanctions regime implementing the UNSC sanctions regimes under the *Charter of the United Nations Act 1945* (Cth) and regulations ("**Australian UN Sanctions**") and imposing its own autonomous sanctions as a matter of foreign policy under the *Autonomous Sanctions Act 2011* (Cth) and *Autonomous Sanctions Regulations 2011* ("**Autonomous Sanctions**"). The Autonomous Sanctions regime may operate independently to, or complement, the UNSC sanctions regime.

The Australian sanctions regimes have extraterritorial reach and apply broadly to activities in Australia, conduct by Australian citizens overseas, conduct by Australian registered bodies corporate overseas, foreign bodies corporate owned or controlled by Australian citizens and to activities (whether by Australian citizens or not) onboard Australian flagged vessels and aircraft.

The Australian sanctions regimes are administered by the Minister for Foreign Affairs who may grant a permit authorizing an activity that would otherwise contravene an Australian sanction law. It is a serious criminal offense under Australian sanction laws to contravene sanctions measures.

Australia fully implements the UNSC sanctions regime relating to Iran as well as applying the autonomous sanctions regime. The regimes prohibit or restrict, inter alia, (i) the export of specified goods, including arms, certain metals and certain software ("**export sanctioned goods**"), (ii) the provision of technical assistance, brokering services, financing and financial assistance relating to export sanctioned goods, (iii) the provision of technology related to export sanctioned goods which could contribute to the development of nuclear weapon delivery systems, (iv) the import of arms or related materials, (v) the sale or otherwise making available of an interest in a sensitive commercial activity, and (vi) the use or dealing with an asset owned or controlled by a person or entity designated by the Australian government.

Australia fully implements the UNSC sanctions regime in relation to Iraq. There is no autonomous sanctions regime for Iraq.

Australia implements an autonomous sanctions regime in relation to Russia. The autonomous sanctions regime prohibits or restricts, inter alia, (i) the supply of arms or related materiel and items suited to specified oil exploration and production projects, (ii) the provision of technical assistance, financial assistance or financing relating to military activities and arms or related materiel, (iii) the provision of investment services relating to sanctioned commercial activity, (iv) the import of arms or related material, and (v) dealing with certain financial instruments issued by Russian state-owned banks or other specified entities.

In addition to the sanctions outlined above, Australia implements (i) UN sanctions regimes for, inter alia, Sudan, North Korea and Libya, and (ii) autonomous sanctions regimes for, inter alia, North Korea, Libya, Crimea and Sevastopol, and Ukraine.

#### **United Nations**

Under Chapter VII of the UN Charter, the UNSC may impose economic sanctions through UNSC resolutions. As at the Latest Practicable Date, there were UNSC Resolutions relating to certain countries including, but not limited to: Iran, Iraq, Libya, Sudan and Yemen. UNSC Resolutions are addressed to UN Member States, who are required under the UN Charter to give effect to the provisions of the resolutions. The manner in which UNSC resolutions are given effect in a particular jurisdiction depends on the constitutional position in that jurisdiction. In some instances, national legislation is required before the requirements of a resolution will become binding on private parties in the jurisdiction. Accordingly, the means of implementation, the interpretation and the enforcement of UN sanctions may differ among UN Member States. In order to fully assess UN sanctions risk, it would be necessary to consider applicable domestic laws of any relevant UN Member State concerning the implementation and enforcement of UN sanctions.

UN sanctions may contain a range of measures. For example, UNSC resolutions typically call upon UN Member States to take measures such as: (i) freeze any funds or other financial assets or economic resources that belong to specified persons, governments, state bodies, entities, or agencies, in the country targeted by the sanctions; (ii) prevent the supply, sale or transfer of defined categories of goods or services to, or for use in or benefit of countries, territories, entities, groups or persons targeted by the sanctions; (iii) to prevent the supply, sale or transfer of arms and related material to the countries, territories, entities, groups or persons targeted by the sanctions.

UN Sanctions also apply to economic sanctions implemented and enforced in Hong Kong under the United Nations Sanctions Ordinance (Cap 537) (the "UN Ordinance") and the United

Nations (Anti-Terrorism Measures) Ordinance (Cap 575), and their subsidiary regulations (collectively, "**Hong Kong Sanctions**"). The UN Ordinance provides for the imposition of Hong Kong Sanctions arising under UN Sanctions and matters incidental to or connected with UN Sanctions, with the exception of sanctions adopted under Chapter VII of the UN Charter targeting the PRC.

#### Overview

Our Group's history can be traced back to 1983 when China Isotope, our predecessor, was established by the Ministry of Nuclear Industry with the approval of the State Council as a company owned by the whole people to engage in the research, development, manufacturing and sale of isotope products. During the period from 2001 to 2007, our controlling shareholder CNNC made several rounds of capital injections in our Company and was the sole shareholder of our Company then. In 2007, we underwent a restructuring and successfully transformed from a company owned by the whole people into a limited liability company and CNNC remained our sole and controlling shareholder.

In May 2011, CIAE and NPIC, the subordinate public institutes directly controlled and managed by CNNC, became shareholders of our Company. In the same year, CNNC, CIAE and NPIC transferred the entire interest in HTA and CNGT held by them to our Company, respectively, and thus HTA and CNGT became subsidiaries of our Company and our Company became the largest and most comprehensive enterprise engaged in research and development, manufacturing and sales, as well in the promotion and application of radiopharmaceuticals and radioactive sources. Our Company also represented the largest and most comprehensive enterprise engaged in the promotion and application of labeled compounds.

In December 2011, our Company was restructured to a joint stock limited company. In March 2017, CNNC Fund, CAIIF and CAIC, our Pre-IPO Investors, became the shareholders of our Company, and at the same time, CNNC further injected capital in our Company. As of the Latest Practicable Date, the registered capital of our Company was RMB 239,906,100.

#### **Milestones of Development**

Set out below are our key milestones in our history to date:

In 1983	China Isotope, our predecessor, was established to commence isotope related business operations.
In 1985	BNIBT, one of our principal subsidiaries, was established, which marked our march into the field of labeled immunoassay.
In 1989	With the approval of the Ministry of Nuclear Industry, we launched the organization of the China Isotope & Radiation Association, and our Company became the member with a tenure position of executive vice chairman in the China Isotope & Radiation Association.
In 1992	Together with Amersham (Far East) Ventures Limited, we jointly established a new high-tech enterprise to achieve the large-scale export of isotope products.
In 1993	Together with Syncor International Corporation (美國欣科國際有限公司), a US incorporated company, we jointly established Shanghai GMS Pharmaceutical to initiate the instant labeled technetium-99m injections manufacturing center in China.
In 2007	We acquired Headway, which possessed related capacities in the research, development, manufacturing and sale of UBT kits and analyzers for diagnosis of helicobacter pylori infection in China, and began to comprehensively enter into the domestic UBT diagnosis area.
	We acquired Anhui Young-Hearty and became the largest manufacturer of UBT analyzers in China.
	We established CIC Lab and entered into the field of independent clinical laboratory services.
In 2008	We acquired the carbon-13 UBT kits products business from HTA and became the sole enterprise possessing carbon-13 and carbon-14 UBT kits products in China.

#### HISTORY, DEVELOPMENT AND CORPORATE STRUCTURE In 2010 CNNC transferred Huakang Radiation which engages in the irradiation business to our Company in July 2010, and we commenced our irradiation business. In 2011 We integrated with HTA and CNGT, and were restructured to become China Isotope & Radiation Corporation, a joint stock company. We became the largest and most comprehensive enterprise engaged in the research and development, manufacturing and sales and the promotion and application of radiopharmaceuticals and radioactive sources in China, as well as the largest and most comprehensive enterprise engaged in the promotion and application of labeled compounds in China. In 2012 We completed the hi-tech industrialization demonstration engineering project for Coblat-60 production by utilizing nuclear power reactors, and broke the foreign monopoly in respect of Cobalt-60 production. In the following year, we obtained the Award of Science and Technology of National Defense (First Class) for the technology research and development and industrialization project for cobalt-60 production by utilizing a heavy water reactor. In 2013 CNNC transferred Suzhou Radiation, which engages in the irradiation business, to us in October 2013, which diversified our irradiation business. In 2014 BINE became a subsidiary of our Company, and since then the design capacity of our irradiation facilities accounted for two-thirds of national overall capacity, and we possessed the capacity covering the entire irradiation industrial chain. In 2016 We completed a capital increase and introduced internal and external strategic investors of the Group, which further enriched our industrial resources. In 2017 Our Cobalt-60 for medical applications successfully operated in reactors, which is expected to break the foreign monopoly in this regard and to realize domestic manufacturing of Cobalt-60 for medical applications.

#### **History and Development**

#### Establishment and Development

In 1983, China Isotope, our predecessor, was funded and established by the Ministry of Nuclear Industry with the approval of the State Council as a company owned by the whole people. At that time, China Isotope was principally engaged in the research, development, manufacturing and sale of isotope products and directly managed by our controlling shareholder, the Ministry of Nuclear Industry (later restructured to China Nuclear Industry Corporation), the predecessor of CNNC. In December 1983, the registered capital of China Isotope was RMB4,000,000.

In 1991, China Isotope expanded its business scope to include the research, development, manufacturing and sale of irradiation products, and increased its registered capital to RMB4,410,000. In 1993, China Isotope further expanded its business scope to include the sale of a variety of products, and increased its registered capital to RMB12,120,000. In 2011, HTA became our subsidiary. HTA has been providing EPC services for the design and installation of irradiation facilities in China since 2004. In 2014, BINE became our subsidiary.

In 2007, China Isotope was restructured into a limited liability company with its name changed into China Isotope Company Limited (中國同位素有限公司), and increased its registered capital to RMB50,000,000, which was wholly owned by CNNC. From May 2008 to April 2010, after three rounds of capital increase, the registered capital of China Isotope Company Limited was increased to RMB74,000,000.

#### Equity Transfer and Restructuring to Joint Stock Limited Company

On March 21, 2011, CNNC was approved by SASAC to further consolidate nuclear technology application resources and relevant business of state-owned assets and to build a nuclear technology application platform. CNNC entered into an equity transfer agreement with CIAE and NPIC, respectively, pursuant to which CNNC agreed to transfer its 26.92% and 21.15% equity interest in China Isotope Company Limited to CIAE and NPIC, respectively. Such equity transfer was completed in December 2011.

Pursuant to the approval of MOF and SASAC in 2011, NPIC transferred its approximately 90.38% equity interest in CNGT to China Isotope Company Limited, and CNNC transferred its entire equity interest in HTA as to approximately 17.00% to China Isotope Company Limited. Upon completion of such equity transfer, China Isotope Company Limited held approximately 68.28% and 90.38% equity interest in HTA and CNGT, respectively, and as such HTA and CNGT became our subsidiaries. The Group expanded its business scope to the manufacturing, research and development and sale of radiopharmaceuticals and radioactive source products and related technical services, including sealed source reloading, radioactive material transportation and recycling. Please refer to "Our Principal Subsidiaries" for details of HTA and CNGT.

On December 6, 2011, China Isotope Company Limited changed its name to China Isotope & Radiation Corporation and was restructured into a joint stock limited company. Our registered capital increased from RMB74,000,000 to RMB200,000,000 by converting the Company's capital reserve into registered capital. Upon completion of such capital increase, the shareholding structure of our Company was as follows:

Name of shareholder	Amount of capital contribution (RMB thousand)	of
CNNC	103,860	51.93%
CIAE	53,840	26.92%
NPIC	42,300	21.15%
Total	200,000	100.00%

#### Pre-IPO Investment

#### Capital Contribution Agreement

For the benefit of our long-term business development and the expansion of our Group, we introduced CNNC Fund, CAIIF and CAIC as our Pre-IPO Investors. Meanwhile, our controlling shareholder CNNC further injected capital in our Company, both directly and through its controlled entities.

On December 21, 2016, the Company, CNNC, CIAE, NPIC, CNNC Fund, 404 Company, Baoyuan Investment, CAIIF and CAIC entered into the capital contribution agreement (the "Capital Contribution Agreement"), pursuant to which the parties thereto agreed to inject capital and subscribe Shares in our Company, upon completion of which, the registered share capital of our Company increased from RMB200,000,000 to RMB239,906,100. The capital contribution was fully paid on an irrevocable basis on January 10, 2017 and completed on March 14, 2017.

The following table sets out details of the Capital Contribution Agreement, the number of Shares subscribed by, and shareholding percentage of, each party in our Company before and after such capital contribution:

		Before the cap	ital contribution	After the capit	al contribution
Party name	Subscription amount (RMB thousand)	Number of Shares subscribed	Shareholding percentage	Number of Shares subscribed	Shareholding percentage
CNNC	60,000	103,860,000	51.93%	106,676,900	44.47%
CIAE	100,000	53,840,000	26.92%	58,534,800	24.40%
NPIC	100,000	42,300,000	21.15%	46,994,800	19.59%
CNNC Fund	400,000	_	_	18,779,300	7.83%
404 Company	80,000	_	_	3,755,900	1.57%
Baoyuan Investment	30,000	_	_	1,408,500	0.59%
CAIIF	30,000	_	_	1,408,500	0.59%
CAIC	50,000			2,347,400	0.98%
Total	850,000	200,000,000	100.00%	239,906,100	100.00%

The subscription amount of each party above was determined after arm's length negotiations by reference to the valuation performed by an Independent Third Party, China United Assets Appraisal Group Co., Ltd. (中聯資產評估集團有限公司), who conducted the valuation of our Shareholders' equity interest as at the valuation reference date, i.e. December 31, 2015, using the income approach.

Summary of the Capital Contribution

The following table sets out a summary of the capital contribution:

Shareholders of the Pre-IPO Investor/Subscriber (except as otherwise Strategic benefits to prescribed, as an Independent the Company Third Party)	• Zhonghe Industry Fund Management (Beijing) Co., Ltd.: 1.64%, fund manager; Zhonghe Industry Fund Management (Beijing) Co., Ltd. was a 66.67% owned subsidiary of our controlling shareholder; CNNC, and the remaining 33.33% interest was indevelopment of (農餐園際注版有限公司). estment in development of good operations of project quality assets and project possibility of business expansion expansion expansion and management Co., Ltd 49.18%. ABC-CA (Shanghai) Asset Management Co., Ltd Ltd 49.18%. ABC-CA (Shanghai) Asset Management Co., Ltd was wholly-owned by ABC-CA (Shanghai) Asset Management Co., Ltd Ltd Ltd Fund Management Co., Ltd Wanagement Co., Ltd	inhanced capital, sovernance; Ltd.
Background of the Pre- IPO Investor/Subscriber	A private investment fund incorporated on Bovernance, enhanced corporate on governance, and the form of a limited experience in partnership, and management, and in investment in development of housiness, investment introduction of good consulting services quality assets and project expansion expansion.	A private investment Strengthened capital, fund incorporated on enhanced corporate March 3, 2010 in the governance;
Shareholding in our Company upon the completion of the Global Offering	5.87% 5.66% (assuming the Over-allotment allotment Option is Option is not fully exercised) exercised)	0.44% 0.42% (assuming the Over- the Over-
Payment date of consideration	5.879 (assurbound) January 10, alloth option of exercises	January 10, 2017
Amount of consideration paid (RMB'000)	ion made by 400,000	30,000
Date of signing the Capital Contribution Agreement	Summary of the capital contribution made by Pre-land December 21, 2016 400,000 Januz 2017	December 21, 2016
Мате	Summary of the	CAIIF

Shareholders of the Pre-IPO Investor/Subscriber (except as otherwise its to prescribed, as an Independent y	and 京)有限公司): 1%, fund in manager  China Aerospace Investment Holdings Ltd. (航天投資控股有限公司): 24.67%	Beijing E-Town International Investment & Development Co., Ltd., (北京亦莊國際投資 發展有限公司): 24.67%	• Beijing State-Owned Capital Operation and Management Center Haidian Branch (北京市海澱區國有資本經營管理中心): 12.34%	• Taikang Life Insurance Co., Ltd. (泰康人壽保險有限責任公司): 12.34%	<ul> <li>China Three Gorges Corporation (三峽資本控股有限責任公司): 12.34%</li> </ul>	<ul> <li>China Citic Co., Ltd (中國中信有限公司): 12.34%</li> <li>Xinjiang Yang Fan Zheng Xing Equity Investment Co., Ltd. (新疆揚帆正興股權投資有限公司): 0.31%</li> </ul>	capital; • China Aerospace Science corporate & Industry Corporation: 44.06%
Strategic benefits to the Company	and knowledge and engaged experience in ent in management, operations, estment development of and business strategy, and	r encrprises acquand listing					Strengthened enhanced c
Background of the Pre- IPO Investor/Subscriber	partnership, and knowledge principally engaged experience in investment in management, non-securities operations, business, investment development management and business stra	consulting services of enterprises acquisition non-securities and listing business.					limited mpany corporated
Shareholding in our Company upon the completion of the Global Offering	Option is Option is p not fully p exercised) exercised) in n	Q, II C					0.71% 0.68% A (assuming (assuming cothe Over-the Over-in-
Payment date of							January 10, 2017
Amount of consideration paid (RMB'000)							50,000
Date of signing the Capital Contribution Agreement							December 21, 2016
Name							CAIC

Name	Date of signing the Capital Contribution Agreement	Amount of consideration paid (RMB'000)	Payment date of consideration	Shareholding in our Company upon the completion of the Global Offering	Background of the Pre- IPO Investor/Subscriber	Strategic benefits to the Company		areholders of the Pre- Investor/Subscriber (except as otherwise scribed, as an Indepen Third Party)	Shareholders of the Pre-IPO Investor/Subscriber (except as otherwise prescribed, as an Independent Third Party)	
				allotment allotment Option is Option is not exercised) exercised)	October 29, 2009, introduction mainly engaged in knowledge mergers and experience acquisitions and management, investments to build operations, its own industrial development sector, set up funds business strat (including industrial funds, merger and acquisition funds, technological innovation & venture investment funds and special funds), property brokerage and asset	n nt, rategy	of end in	Eight investors (tindividual percentage by total: 17.35% Institute oo Technologies China Aerosp & Industry 14.95% Institute of Technologies China Aerosp & Industry 14.95%	ins he he shar eing u vace Cor	onal hest fing 0%)  mass anse the succe ion: the the mee ion:
i				;	securitization business, etc.		•	China Space Sa Group Corpo (中國航天三江集團公司): 8.69%	Space Sanjiang Corporation 三江集團公司):	iang tion
Summary of	f the capital contril	bution mad	le by CNNC	Summary of the capital contribution made by CNNC and its controlled entities						
CNNC	December 21, 2016	000°09	January 10, 2017	32.14% 30.80% (assuming the Over- the Over- allotment allotment Option is Option is not fully exercised) exercised)	Our controlling shareholder and a state-owned enterprise, principally engaged in scientific research and development, and production operations in nuclear power, nuclear fuel natural uranium, nuclear environmental production, application of	N/A	Directly managed	1 by	pa	and

		,	
PO dent		and	and
Shareholders of the Pre-IPO Investor/Subscriber (except as otherwise prescribed, as an Independent Third Party)		controlled by CNNC	controlled by CNNC
Shareho Invo (exc prescribe		Directly control managed by CNNC	Directly control managed by CNNC
Strategic benefits to the Company		N/A	N/A
of the Pre- Subscriber	non- civilian nuclear es etc.	ic institute I by MOF, principally in nuclear research, engineering and design, iical fast reactor and design, research, technology 1 and radiation ardiation	c institute d by MOF principally in nuclear engineering integrated t supply of eam supply of reactor and applied reactor and applied reactor ig
Background of the Pre-	technologies, rinuclear civi products, nuclear energy sources etc.	A public institute established by MOF, and principally engaged in nuclear physics research, reactor engineering research and design, radiochemical research, fast reactor research, fast reactor research, and design, isotope research, nuclear technology application and research, readiation safety research.	A public institute established by MOF and principally engaged in nuclear power engineering design, integrated equipment supply of nuclear steam supply system, reactor operation and applied research, reactor engineering experimental
Shareholding in our Company upon the completion of the Global Offering		(assuming (assuming the Over-allotment allotment Option is Option is not fully exercised) exercised)	14.16% 13.57% (assuming (assuming the Over- the Over- allotment allotment Option is Option is fully exercised) exercised)
Share in our C upon the con Global		17.63% (assuming the Overallotment Option is not exercised)	14.16% (assuming the Over- allotment Option is not exercised)
Payment date of consideration		January 10, 2017	January 10, 2017
Amount of consideration paid (RMB'000)		100,000	100,000
Date of signing the Capital Contribution Agreement		December 21, 2016 100,000	December 21, 2016 100,000
Date o Capital Ag		Decem	Decem
Name		CIAE	NPIC

Name	Date of signing the Capital Contribution Agreement	Amount of consideration paid (RMB'000)	Payment date of	Shareholding in our Company upon the completion of the Global Offering	Background of the Pre- IPO Investor/Subscriber	Strategic benefits to the Company	Shareholders of the Pre-IPO Investor/Subscriber (except as otherwise prescribed, as an Independent Third Party)
					production and nuclear technology services and applications.		
Company	404 Company December 21, 2016	80,000	January 10, 2017	1.13% 1.08% (assuming (assuming the Over- the Over- allotment allotment Option is option is not fully exercised) exercised)	Principally engaged in nuclear research and production, uranium conversion, reprocessing of spent fuel, decommission of nuclear facilities and radioactive waste treatment and disposal.	N/A	A wholly-owned subsidiary of CNNC
Baoyuan Investment	December 21, 2016 30,000	30,000	January 10, 2017	0.42% 0.41% (assuming (assuming the Over- the Over- allotment allotment Option is not fully exercised) exercised)	Principally engaged in nuclear industrial services, nuclear medical services, property operation and management services, operation and management of non-nuclear civilian goods, and equity investment in the areas of aerospace equipment, finance and others	N/A	A wholly-owned subsidiary of CNNC

As of the Latest Practicable Date, RMB400,000,000 out of the above capital contribution has been utilized to repay the commercial loans of our Company, RMB60,000,000 out of the above capital contribution has been utilized for the construction of irradiation stations, and the remaining RMB 390,000,000 has not yet been utilized.

Based on the investment amount of RMB480,000,000 and the Shares expected to be held by our Pre-IPO Investors after the Global Offering, the amount to be paid by thereby would be RMB21.3 per Share, which represents a premium of 19.7% and a discount of 12.0% against the lowest and highest Offer Price of HK\$17.80 and HK\$24.20, respectively.

#### No Special Rights, Lock-up and Public Float

Pursuant to the Capital Contribution Agreement, none of the above capital contributors, including our Pre-IPO Investors, was granted any special rights that were not available to our other Shareholders. According to the relevant laws, regulations and rules or the requirements of the local government authorities, our Pre-IPO Investors and other capital contributors mentioned above shall not transfer its respective Shares in the Company within one year after the Listing of the Company.

Unless disclosed above, the terms of the Capital Contribution Agreement did not impose any other lock-up obligations upon the Shares which are expected to be held by our Pre-IPO Investors or other capital contributors after the Listing.

As both CAIIF and CAIC are independent of our Group and our connected persons, all Shares to be held by CAIIF and CAIC after the Listing will count towards the public float of the Company. Since CNNC Fund is a company controlled by CNNC (our controlling shareholder and thus a connected person), CNNC Fund shall be deemed as a connected person of the Company and all Shares to be held by CNNC Fund after the Listing will not be counted towards the public float of the Company.

#### Compliance with Interim Guidance

On the basis that (i) the consideration for the pre-IPO investment was settled more than 28 clear days before the date of our first submission of the listing application form to the Listing Division of the Stock Exchange in relation to the Listing; and (ii) none of the Pre-IPO Investors was granted any privilege different from that of our investors, the Sole Sponsor confirms that the pre-IPO investment is in compliance with the Interim Guidance on Pre-IPO Investments issued by the Stock Exchange on October 13, 2010, the Guidance Letter HKEx-GL43-12 issued by the Stock Exchange in October 2012 and as updated in July 2013 and March 2017 and the Guidance Letter HKEx-GL44-12 issued by the Stock Exchange in October 2012 and as updated in March 2017.

#### **Post Track Record Period Acquisitions**

On December 7, 2017, the Company established CNNC Taizhou with Saiwang, in which the Company and Saiwang hold 86% and 14% equity interests respectively. As of the Latest Practicable Date, Mr. Cao Maofen was a beneficial owner of Saiwang and served as the general manager of Saiwang, and was responsible for the daily management and operation of Saiwang. Upon establishment of CNNC Taizhou by our Company and Saiwang, Mr. Cao Maofen was appointed as the director and vice president of CNNC Taizhou. To the best knowledge and information of the Directors, before the appointment of director of CNNC Taizhou, Mr. Cao Maofen was an Independent Third

Party. On December 14, 2017, the Company, CNNC Taizhou, Mr. Cao Maofen and Saiwang entered into the Asset Acquisition Agreement, pursuant to which CNNC Taizhou agreed to purchase all the operating assets of Saiwang, including but not limited to production plant, warehouse, land and operating equipment, at the consideration of RMB35 million which was determined by the parties after arm's length negotiations by reference to the assessment of the value of the target assets. The consideration shall be paid by CNNC Taizhou in installments. On December 26, 2017 and January 23, 2018, CNNC Taizhou paid RMB7 million and RMB0.7 million, respectively, for part of the target assets, including the lands and buildings of Saiwang. The Company expects that the Saiwang Acquisition will complete in October 2018.

On April 27, 2018, the Company entered into the Share Purchase Agreement with Liuhe Zhongxin, pursuant to which the Company agreed to purchase 100% of the equity interest in Sanjin held by Liuhe Zhongxin at the consideration of RMB 211.5 million. Liuhe Zhongxin is a company incorporated under the laws of the PRC, and is principally engaged in, among others, the organization of cultural activities and exhibitions, investment management and asset management. To the best knowledge and information of the Directors, as of the Latest Practicable Date, Liuhe Zhongxin is an Independent Third Party. The consideration was determined by the parties after arm's length negotiations by reference to the value of the equity interests in Sanjin held by Liuhe Zhongxin and shall be paid by the Company in installments. On April 27, 2018 and April 28, 2018, the Company paid RMB 80 million and RMB 120 million, respectively, as part of the consideration to Liuhe Zhongxin. The Company expects that the Sanjin Acquisition will complete in October 2018.

In addition, after the Track Record Period and up to the Latest Practicable Date, the Company is considering to acquire certain businesses of Meiquan.

#### Information of Saiwang, Sanjin and Meiquan

Saiwang is a company incorporated under the laws of the PRC, and is principally engaged in the research and application of irradiation technologies in relation to environmental coating and dyeing and printing auxiliaries, irradiation services for sterilization purposes, irradiation cross-link wires and cables, irradiation cross-link pipes, etc. It has been operating an irradiation station with a designed capacity of 2 million Ci of cobalt-60 since 2009. According to the unaudited management accounts of Saiwang, which were made available to the Company, its total assets amounted to approximately RMB31.29 million and RMB35.17 million as of December 31, 2016 and 2017, respectively, its total revenue amounted to approximately RMB2.92 million and RMB4.10 million for the year ended December 31, 2016 and 2017, respectively, and it recorded a loss (before and after tax) of RMB0.59 million and RMB0.52 million for the year ended December 31, 2016 and 2017, respectively.

Sanjin is a company incorporated under the laws of the PRC, and is principally engaged in, among others, property management and leasing of office buildings. According to the unaudited management accounts of Sanjin made available to the Company, its total assets amounted to approximately RMB 46.89 million and RMB 46.99 million as of December 31, 2016 and December 31, 2017, respectively, its total revenue amounted to approximately RMB 4.90 million and RMB 6.06 million for the year ended December 31, 2016 and December 31, 2017, respectively, and it recorded a profit before tax of approximately RMB 0.14 million and RMB 0.91 million for the year ended December 31, 2016 and profit after tax of RMB0.13 million and RMB0.32 million for the year ended December 31, 2016 and December 31, 2017, respectively.

Meiquan is a company incorporated under the laws of the PRC, and is principally engaged in processing and the application of isotope irradiation, etc. According to the unaudited management accounts of Meiquan, which were made available to our Company, Meiquan's total assets amounted to approximately RMB27.44 million and RMB26.57 million as of December 31, 2016 and 2017, respectively, and its total revenue amounted to approximately RMB3.11 million and RMB3.20 million for the year ended December 31, 2016 and 2017, respectively, and it recorded a loss (before and after tax) of RMB0.77 million and RMB0.22 million for the year ended December 31, 2016 and 2017, respectively.

As our reporting accountants have not audited or reviewed the financial statements of Saiwang, Sanjin and Meiquan, prospective investors should be aware that adjustments may arise.

#### Reasons and benefits of the Post-TRP Acquisitions

Due to favorable policies of the local government, the market demand for irradiation services is increasing in Jiangsu Province in recent years. Therefore, the Company needs additional irradiation stations to provide irradiation services in the local market. After conducting due diligence work towards Saiwang and Meiguan, it is found that the operating assets of Saiwang and Meiguan match such need. It is also more cost-effective and time-saving for the Company to acquire an irradiation station in market, rather than to build a new irradiation station by itself, as building a new irradiation station usually requires large amount of investment and takes long time. The Saiwang Acquisition and Possible Meiquan Acquisition would enable the Group to further develop its irradiation technology application research and services and expand its market share in Jiangsu Province, PRC. In addition, the current office building area can't meet the Group's needs anymore, and the Group has been considering to relocate its headquarter to new office building to improve the working environment and conditions. After intensive due diligence and internal evaluation, the Company is of the view that the office building of Sanjin meets the Group's requirement in terms of environment, location, transportation, decoration, consideration, etc. Therefore, the Sanjin Acquisition would enable the Group to relocate its headquarter to new office building which is equipped with better conditions and therefore improve the company image.

As of the Latest Practicable Date: (i) the Company had not entered into any form of agreement (binding or otherwise) with the counterparties in relation to the Possible Meiquan Acquisition; (ii) the Post-TRP Acquisitions remained subject to the completion by, or commercial negotiation between the parties negotiations between, the relevant parties (as the case may be); and (iii) there was no assurance as to whether the Possible Meiquan Acquisition would proceed as at the date of this prospectus. As there is no consent has yet been provided by the relevant counterparties for public disclosure of confidential information of the target business, the relevant financial information of the target business in relation to the Post-TRP Acquisitions has not been included in this prospectus. If we enter into a legally binding agreement in respect of the Possible Meiquan Acquisition after Listing, we will comply with the requirements under the relevant guidance letter issued by the Hong Kong Stock Exchange and the Listing Rules (including the requirement to make a further announcement(s) under Chapter 14 of the Listing Rules) as and when appropriate.

To the best knowledge and information of the Directors, Saiwang, Sanjin and Meiquan are Independent Third Parties.

We have applied to the Hong Kong Stock Exchange for, and the Hong Kong Stock Exchange has granted us, a waiver from strict compliance with Rules 4.04(2) and 4.04(4) of the Listing Rules in

relation to the Post-TRP Acquisitions. For details, see "Waivers from Strict Compliance with the Listing Rules — Waiver from Strict Compliance with Rules 4.04(2) and 4.04(4) of the Listing Rules" in this prospectus.

#### **Our Principal Subsidiaries**

As a result of the history of our development, strategic business development and geographic coverage of our operations, the structure of our Group is complicated. The Company has a total of 42 subsidiaries operating mainly in the PRC, of which 15 are first-tier subsidiaries in which the Company directly holds equity interest, and 27 are second-tier subsidiaries in which the Company indirectly holds equity interest. As of the Latest Practicable Date, we have six principal first-tier subsidiaries which are engaged in our core business sectors. The details of these six principal first-tier subsidiaries are set out as below:

#### HTA

HTA was incorporated as a joint stock limited company in China on May 18, 2001, and was listed on NEEQ on July 28, 2006 and became an unlisted public company. In 2011, CIAE and CNNC transferred their entire equity interest in HTA to China Isotope Company Limited, our predecessor. After such equity transfer and as of the Latest Practicable Date, our Company held 68.28% equity interest in HTA, the Fourth Research and Design Engineering Corporation of CNNC (中核第四研究設計工程有限公司), a wholly-owned subsidiary of CNNC, held 3.02% equity interest in HTA, and the remaining 28.70% equity interest was held by individual public shareholders, who, to the best knowledge and information of the Directors, are Independent Third Parties. HTA has a total of 25 wholly owned or non-wholly owned subsidiaries, which are principally engaged in the manufacturing and sale of in vivo radiopharmaceuticals, radioactive sources, radioactive medical devices, radioactive labeled compounds and tracer reagents.

Given that HTA was listed on NEEQ, it is subject to applicable disclosure requirements under the laws and regulations of the PRC, and the rules implemented by NEEQ. For public information disclosed by HTA, the Company will issue relevant announcements in Hong Kong pursuant to the related requirements of the Listing Rules, including but not limited to, Rule 13.10B of the Listing Rules, when necessary.

HTA commenced its operations since the date of its incorporation, and is mainly engaged in the manufacturing and sale of radioactive pharmaceuticals and provision of import and export services in respect of raw and auxiliary materials, mechanical equipment, instruments and meters, spare parts and technologies. As of the Latest Practicable Date, the registered capital of HTA was RMB132,560,000.

#### **CNGT**

CNGT was established in China on June 11, 2002. In 2011, NPIC transferred its entire equity interest in CNGT to China Isotope Company Limited, our predecessor. After such equity transfer, CNGT became a subsidiary of the Company. As of the Latest Practicable Date, the Company held 90.38% equity interest in CNGT and the remaining 6.63% and 3.00% interest was, to the best knowledge and information of our Directors, held by Independent Third Parties Chengdu Tonglida

Nuclear Technology Development Co., Ltd.<sup>note 1</sup> (成都通力達核技術開發有限公司) and MASEP Medical Science Technology Development(Shenzhen) Co., Ltd (深圳瑪西普醫學科技發展有限公司), respectively.

CNGT commenced its operations since the date of its incorporation, and is mainly engaged in the production of radiopharmaceuticals, sealed radioactive sources, such as strong sealed radioactive sources and standard sealed radioactive sources, and related technical services, including sealed source reloading, radioactive material transportation and recycling. As of the Latest Practicable Date, the registered capital of CNGT was RMB40,000,000.

#### Headway

Headway was incorporated as a limited liability company in China on August 9, 1996. In January 2007, China Isotope, our predecessor, entered into an equity transfer agreement with Shenzhen Weema Investment and Development Co., Ltd (深圳市威瑪投資發展有限公司) ("Shenzhen Weema"), a limited liability company incorporated in China, and Zhang Weibin, both of whom are, to the best knowledge and information of our Directors, Independent Third Parties, pursuant to which Shenzhen Weema and Zhang Weibin agreed to transfer their equity interests of 46.00% and 9.00% in Headway to China Isotope, respectively, for the consideration of RMB18,590,000 which was determined by the parties after arm's length negotiations by reference to the assessment of the value of shareholders' equity interest of Headway as at December 31, 2006 using the income approach. After such equity transfer, the Company held 55.00% equity interest in Headway and CNNC Sufa Technology Industry Co., Ltd ("CNNC Technology"), an associate of CNNC, held the remaining 45.00% equity interest.

Subsequently, Headway underwent a series of equity transfers and capital increases. As of the Latest Practicable Date, our Company directly held 34.10% interest, and indirectly held 20.00% interest through our subsidiary HTA in Headway. CNNC Technology, an associate of CNNC, held 27.90% equity interest in Headway, Chen Shixiong, general manager of Anhui Young-Hearty, a subsidiary of Headway, held 3.28% equity interest in Headway, and the remaining 14.72% interest was held by Guangzhou Yanghui Investment and Consultation Co., Ltd. (廣州養慧投資諮詢有限公司), which to the best knowledge and information of our Directors is an Independent Third Party.

Headway commenced its operations since the date of its incorporation, and is mainly engaged in the production and sale of UBT kits and analyzer products. As of the Latest Practicable Date, the registered capital of Headway was RMB25,000,000.

#### **BNIBT**

On June 6, 1985, with the approval of the Ministry of Nuclear Industry, China Isotope, our predecessor, founded North Immune Reagent Institute (北方免疫試劑研究所) as an enterprise owned by the whole people. In December 1995, North Immune Reagent Institute changed its name to Beijing North Institute of Biological Technology. In August 2014, BNIBT became a limited liability company.

BNIBT commenced its operations since the date of its incorporation, and is mainly engaged in the research and development and production of RIA in vitro immunoassay diagnostic reagents, and

Chengdu Tonglida Nuclear Technology Development Co., Ltd. ("Tonglida") is a holding company which holds 2,650,000 shares of CNGT as of the Latest Practicable Date. Among the 2,650,000 shares of CNGT directly held by Tonglida, 1,501,500 shares are held by Tonglida on behalf of more than 1,300 individuals. With respect to the another portion of 350,000 shares of CNGT held by Tonglida, due to historical reasons, our shareholders CNNC and NPIC are of the view that this portion of shares of CNGT are held by Tonglida on behalf of NPIC.

production of a full range of RIA in vitro diagnostic kits and analyzer products for thyroid function, gonad, cancer, and high blood pressure. As of the Latest Practicable Date, the registered capital of BNIBT was RMB18,000,000.

#### **CNNC Tongxing**

On March 12, 2010, China Isotope, our predecessor, and Qinshan No. 3 Nuclear Power jointly established CNNC Tongxing as a limited liability company, which was principally engaged in the production and operation of Cobalt-60 radioactive sources. As of the Latest Practicable Date, our Company held 51.00% equity interest in CNNC Tongxing and Qinshan No. 3 Nuclear Power held the remaining 49.00% equity interest in CNNC Tongxing. Qinshan No. 3 Nuclear Power is a subsidiary of our controlling shareholder, CNNC, and thus a connected person of our Company, which is mainly responsible for the engineering construction and management of the production and operation of Qinshan Phase III nuclear power plant.

CNNC Tongxing commenced its operations since the date of its incorporation, and is mainly engaged in the production of radioactive sources, instruments and meters and mechanical equipment, and provision of technology development, technology consulting, technology transfer and technology import and export services. As of the Latest Practicable Date, the registered capital of CNNC Tongxing was RMB30,000,000.

#### Suzhou Radiation

Suzhou Radiation, previously known as Suzhou Medical College Wujiang Radiation Center (蘇州醫學院吳江輻照中心), was initially incorporated as a collective joint ownership enterprise owned by the whole people on December 15, 1994. In March 2000, Suzhou Medical College Wujiang Radiation Center was restructured as a limited liability company, i.e. Suzhou CNNC Huadong Radiation Co., Ltd.

In August 2010, Huakang Radiation transferred its 3.33% equity interest in Suzhou Radiation to China Isotope Company Limited, our predecessor, at the consideration of RMB919,100, which was determined by the parties after arm's length negotiations. On October 27, 2013, CNNC Technology, Shanghai CNNC Puyuan Co., Ltd. (上海中核浦原有限公司), Haiyan Baoli Service Co., Ltd. (海鹽實力服務公司) and the Company entered into an equity transfer agreement, pursuant to which CNNC Technology, Shanghai CNNC Puyuan Co., Ltd., and Haiyan Baoli Service Co., Ltd. (海鹽寶力服務公司) agreed to transfer their respective equity interest of 33.70%, 7.28% and 7.28% in Suzhou Radiation to the Company for the consideration of RMB18,872,000, RMB4,076,620 and RMB4,076,620, respectively, which was determined by the parties after arm's length negotiations by reference to the assessed value of net assets of Suzhou Radiation as of December 31, 2012. The equity transfer was completed on August 5, 2015. As of the Latest Practicable Date, the Company held 51.59% equity interest in Suzhou Radiation, and the remaining interest was held as to 36.81% and 11.60% by Jiangsu Suda Investment Co., Ltd. (江蘇蘇大投資有限公司) and Suzhou Wujiang Songling Real Estate Development Co., Ltd. (蘇州市吳江區松陵房產綜合開發公司), each to the best knowledge and information of our Directors being an Independent Third Party, respectively.

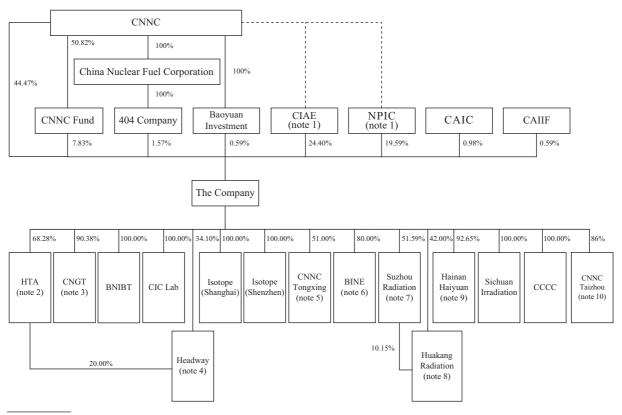
Suzhou Radiation commenced its operations since the date of its incorporation, and is mainly engaged in the production and sale of radiation cross-linked heat-shrinkable products, and the provision of industrial irradiation and its application technology development and technical consulting

services. As of the Latest Practicable Date, the registered capital of Suzhou Radiation was RMB27,600,000.

For details of the subsidiaries which would have impact on the financial performance, assets or liabilities of the Group during the Track Record Period, please see the section headed "Accountants' Report" of Appendix I to this prospectus.

#### **Corporate Structure**

The following chart sets out the simplified corporate structure of our Company and its first-tier subsidiaries immediately prior to the Global Offering:

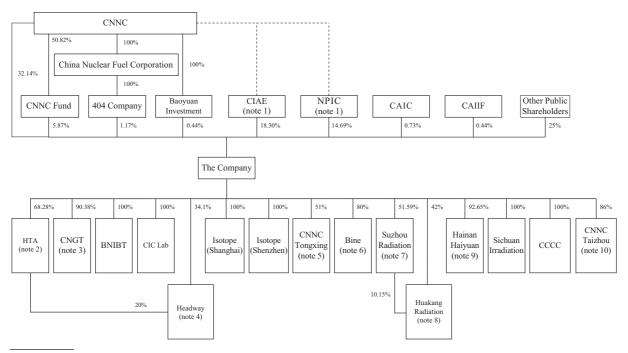


#### Notes:

- CIAE and NPIC are public institutes which are established by MOF and directly controlled and managed by CNNC.
- 2. HTA is owned as to 68.28% by our Company and 3.02% by the Fourth Institute of Nuclear Engineering of CNNC, being a wholly-owned subsidiary of CNNC, and the remaining 28.70% by individual public shareholders, respectively, who to the best knowledge and information of the Directors, are Independent Third Parties.
- 3. CNGT is owned as to 90.38% by our Company, and the remaining 6.62% and 3.00% by Chengdu Tonglida Nuclear Technology Development Co., Ltd. (成都通力達核技術開發有限公司) and MASEP Medical Science Technology Development (Shenzhen) Co., Ltd. (深圳瑪西普醫學科技發展有限公司), respectively, who to the best knowledge and information of the Directors, are Independent Third Parties. Chengdu Tonglida Nuclear Technology Development Co., Ltd. ("Tonglida") is a holding company which holds 2,650,000 shares of CNGT as of the Latest Practicable Date. Among the 2,650,000 shares of CNGT directly held by Tonglida, 1,501,500 shares are held by Tonglida on behalf of more than 1,300 individuals. With respect to the another portion of 350,000 shares of CNGT are held by Tonglida, due to historical reasons, our shareholders CNNC and NPIC are of the view that this portion of shares of CNGT are held by Tonglida on behalf of NPIC.
- 4. Headway is owned as to 34.10% by our Company, 20.00% by HTA, our subsidiary, 27.90% by CNNC Technology, being an associate of CNNC, Chen Shixiong, general manager of Anhui Young-Hearty, a subsidiary of Headway, held 3.28% equity interest in Headway, and the remaining 14.72% interest was held by Guangzhou Yanghui Investment and Consultation Co., Ltd. (廣州養慧投資諮詢有限公司), which to the best knowledge and information of our Directors being an Independent Third Party.
- CNNC Tongxing is owned as to 51.00% by our Company and the remaining 49.00% by Qinshan No.3 Nuclear Power, a subsidiary of CNNC.

- 6. BINE is owned as to 80.00% by our Company, 2.50% by Liu Ge, director of BINE, and the remaining 9.50%, 5.00%, 1.00%, 1.00% and 1.00% by Dingdian Investment Management (Beijing) Co., Ltd. (鼎典投資管理(北京)有限公司), Feng Jianhua, Wu Qinliang, Liu Qifeng and Ba Yanfeng, respectively, who to the best knowledge and information of the Directors, are Independent Third Parties.
- 7. Suzhou Radiation is owned as to 51.59% by our Company, and the remaining 36.81% and 11.60% owned by Jiangsu Suda Investment Co., Ltd. (江蘇蘇大投資有限公司) and Suzhou Wujiang Songling Real Estate Development Co., Ltd. (蘇州市吳江區松陵房產綜合開發公司), respectively, who to the best knowledge and information of the Directors, are Independent Third Parties.
- 8. Huakang Radiation is owned as to 42.00% by our Company, 10.15% by Suzhou Radiation, our subsidiary, 25.4925% by Zheng Minlei, director and general manager of Huakang Radiation, and the remaining 8.0025%, 4.785%, 4.785% and 4.785% by Xu Jinyao, director of Huakang Radiation, Zhou Song, Wu Tianming and Zheng Jing, respectively, who to the best knowledge and information of the Directors, are Independent Third Parties.
- Hainan Haiyuan is owned as to 92.65% by our Company and the remaining 7.35% by Baoyuan Investment, a wholly-owned subsidiary of CNNC.
- 10. CNNC Taizhou is owned as to 86% by our Company and the remaining 14% by Mr. Cao Maofen.

The following chart sets out the simplified corporate structure of our Company and its principal subsidiaries immediately following the Global Offering (and assuming the Over-allotment Option is not exercised):



#### Notes:

- 1. CIAE and NPIC are public institutes which are established by MOF and directly controlled and managed by CNNC.
- 2. HTA is owned as to 68.28% by our Company and 3.02% by the Fourth Institute of Nuclear Engineering of CNNC, being a wholly-owned subsidiary of CNNC, and the remaining 28.70% by individual public shareholders, respectively, who to the best knowledge and information of the Directors, are Independent Third Parties.
- 3. CNGT is owned as to 90.38% by our Company, and the remaining 6.62% and 3.00% by Chengdu Tonglida Nuclear Technology Development Co., Ltd. (成都通力達核技術開發有限公司) and MASEP Medical Science Technology Development (Shenzhen) Co., Ltd. (深圳瑪西普醫學科技發展有限公司), respectively, who to the best knowledge and information of the Directors, are Independent Third Parties.
- 4. Headway is owned as to 34.10% by our Company, 20.00% by HTA, our subsidiary, 27.90% by CNNC Technology, being an associate of CNNC, Chen Shixiong, general manager of Anhui Young-Hearty, a subsidiary of Headway, held 3.28% equity interest in Headway, and the remaining 14.72% interest was held by Guangzhou Yanghui Investment and Consultation Co., Ltd. (廣州養慧投資諮詢有限公司), which to the best knowledge and information of our Directors being an Independent Third Party.
- CNNC Tongxing is owned as to 51.00% by our Company and the remaining 49.00% by Qinshan No.3 Nuclear Power, a subsidiary of CNNC.
- 6. BINE is owned as to 80.00% by our Company, 2.50% by Liu Ge, director of BINE, and the remaining 9.50%, 5.00%, 1.00%, 1.00% and 1.00% by Dingdian Investment Management (Beijing) Co., Ltd. (鼎典投資管理(北京)有限公司), Feng Jianhua, Wu Qinliang, Liu Qifeng and Ba Yanfeng, respectively, who to the best knowledge and information of the Directors, are Independent Third Parties.
- 7. Suzhou Radiation is owned as to 51.59% by our Company, and the remaining 36.81% and 11.60% owned by Jiangsu Suda Investment Co., Ltd. (江蘇蘇大投資有限公司) and Suzhou Wujiang Songling Real Estate Development Co., Ltd.

- (蘇州市吳江區松陵房產綜合開發公司), respectively, who to the best knowledge and information of the Directors, are Independent Third Parties.
- 8. Huakang Radiation is owned as to 42.00% by our Company, 10.15% by Suzhou Radiation, our subsidiary, 25.4925% by Zheng Minlei, director and general manager of Huakang Radiation, and the remaining 8.0025%, 4.785%, 4.785% and 4.785% by Xu Jinyao, director of Huakang Radiation, Zhou Song, Wu Tianming and Zheng Jing, respectively, who to the best knowledge and information of the Directors, are Independent Third Parties.
- 9. Hainan Haiyuan is owned as to 92.65% by our Company and the remaining 7.35% by Baoyuan Investment, a wholly-owned subsidiary of CNNC.
- 10. CNNC Taizhou is owned as to 86% by our Company and the remaining 14% by Mr. Cao Maofen.

#### **The Party Committee**

According to "The Constitution of the Communist Party of China", the Company established the Committee of Communist Party of China Isotope & Radiation Corporation (the "Party Committee"), which plays a core political role in the Company. The Party Committee mainly assumes the following responsibilities:

- ensuring and supervising the implementation of the policies and strategies of the PRC and the Communist Party of China. Supporting major decisions made by Central Committee of the Communist Party of China and the State Council, as well the work deployment of relevant state ministries and higher party organizations.
- supervising and supporting the Board and the management team to fulfill their functions in accordance with applicable laws and regulations. Advising the nomination of and/or nominating directors and general managers, or evaluating candidates for directors and general managers with the Board.
- researching, discussing and advising on issues related to the Company's reform and development, major business management and operation matters and matters relating to employees' interest.
- leading the ideological and political work, promoting cultural and ideological progress of
  the Company, cultivating corporate culture and assisting the work of labor union and the
  communist youth league of the Company. Leading the Company in building an honest and
  clean party and supporting the supervisory work conducted by discipline inspection
  commission.

#### **BUSINESS**

#### **OVERVIEW**

We are the leading enterprise in the field of isotopes and irradiation technology applications in China. We are primarily engaged in the research, development, manufacturing and sale of diagnostic and therapeutic radiopharmaceuticals and radioactive source products for medical and industrial applications. We also provide irradiation service for sterilization purpose and EPC service for the design, manufacturing and installation of gamma ray irradiation facilities. In addition, we provide independent clinical laboratory services to hospitals and other medical institutions. According to Frost & Sullivan, in 2017, we were the largest manufacturer of imaging diagnostic and therapeutic radiopharmaceuticals, UBT kits and analyzers and radioactive source products, respectively, in terms of revenue in China. We have the following four business segments:

**Pharmaceuticals.** In the pharmaceuticals segment, we are primarily engaged in the research, development, manufacturing and sale of a broad range of (i) imaging diagnostic and therapeutic radiopharmaceuticals, (ii) UBT kits and analyzers, and (iii) in vitro immunoassay diagnostic reagents and kits in China. We mainly sell these pharmaceuticals directly to hospitals and other medical institutions in China for the purposes of diagnosis, treatment and efficacy assessment of various diseases. According to Frost & Sullivan, we were the largest manufacturer of imaging diagnostic and therapeutic radiopharmaceuticals, UBT kits and analyzers, and RIA kits in terms of revenue in 2017 in China, accounting for 40.4%, 78.0% and 35.0% of market share, respectively. Revenue generated from the pharmaceuticals segment was RMB1,773.6 million, RMB1,971.1 million and RMB2,253.8 million in 2015, 2016 and 2017, representing 82.4%, 83.4% and 84.3%, respectively, of our total revenue in the same periods.

Radioactive source products. For the radioactive source products segment, we are primarily engaged in the research, development, manufacturing and sale of a variety of radioactive sources products for use in medical and industrial fields as well as provision of the relevant technical services. We primarily supply radioactive source products and technical services to radiotherapy equipment manufacturers, irradiation service providers, non-destructive testing equipment manufacturers and service providers and oil field operators in China for use in radiotherapy, irradiation service, non-destructive testing and oil field tracer technical services, respectively. According to Frost & Sullivan, we were the largest manufacturer of medical and industrial radioactive source products in terms of revenue in 2017 in China, accounting for 84.5% and 53.4% of market share, respectively. Revenue generated from the radioactive source products segment was RMB275.2 million, RMB287.7 million and RMB292.2 million in 2015, 2016 and 2017, representing 12.8%, 12.2% and 10.9%, respectively, of our total revenue in the same periods.

*Irradiation*. With respect to our irradiation segment, we are primarily engaged in (i) providing an irradiation service to manufacturers of medical devices, food, traditional Chinese medicine and cosmetics in China for sterilization purpose and (ii) providing EPC service for the design, manufacturing and installation of irradiation facilities to irradiation service providers by leveraging our leading irradiator design capability in China. Irradiation facility houses cobalt-60 sealed source to emit radiation to destroy harmful micro-organisms, leaving the products untouched in their original packaging. According to Frost & Sullivan, we were two out of three qualified EPC service providers approved by the MEP to engage in the design, manufacturing and installation of irradiation facilities in China as of the Latest Practicable Date. Revenue generated from the irradiation segment was RMB47.9 million, RMB51.1 million and RMB65.9 million in 2015, 2016 and 2017, representing 2.2%, 2.2% and 2.5%, respectively, of our total revenue in the same periods.

#### **BUSINESS**

Independent clinical laboratory services and other businesses. As a downstream extension of our in vitro immunoassay diagnostic reagents and kits business, we provide independent clinical laboratory services to hospitals and other medical institutions in China. We primarily offer independent clinical laboratory services with respect to hepatitis, endocrine, bone metabolism, cardiovascular disease, diabetes, blood diseases, trace elements, prenatal and postnatal care, tumors, thyroid function, sex hormone function, kidney and urinary system, autoimmune diseases, humoral cellular immunity, digestive tract diseases and bone marrow cytology. Revenue generated from the independent clinical laboratory services and other businesses segment was RMB55.4 million, RMB53.2 million and RMB60.1 million in 2015, 2016 and 2017, representing 2.6%, 2.3% and 2.3%, respectively, of our total revenue in the same periods.

We have established a nationwide sales network of our products and services in China. We adopt three major sales models with respect to our pharmaceuticals segment, namely: (i) direct sales through our own sales force; (ii) direct sales through marketing and promotion service by promoters; and (iii) distributorship. Our pharmaceuticals revenue generated from direct sales through own sales force was RMB746.1 million, RMB761.2 million and RMB828.2 million for the years ended December 31, 2015, 2016 and 2017, respectively, accounting for 42.1%, 38.6% and 36.7% of our segment revenue during the same periods. Our pharmaceuticals revenue generated through direct sales with marketing and promotion service by promoters was RMB960.6 million, RMB1,121.9 million and RMB1,322.7 million for the years ended December 31, 2015, 2016 and 2017, respectively, accounting for 54.2%, 56.9% and 58.7% of our segment revenue during the same periods. Our pharmaceuticals revenue generated through distributors was RMB60.8 million, RMB80.7 million and RMB88.1 million for the years ended December 31, 2015, 2016 and 2017, respectively, accounting for 3.4%, 4.1% and 3.9% of our segment revenue for the same periods.

We have experienced stable business growth in recent years. In particular, our revenue increased from RMB2,152.1 million in 2015 to RMB2,363.1 million in 2016, and further to RMB2,672.0 million in 2017. In 2015, 2016 and 2017, our net profit was RMB410.4 million, RMB434.5 million and RMB475.6 million, respectively.

#### **OUR COMPETITIVE STRENGTHS**

We believe the following competitive strengths contribute to our success and distinguish us from our competitors:

# We are the isotopes and irradiation technology application industry platform of CNNC, the leading nuclear technology conglomerate with whole industry chain in China

CNNC maintains a comprehensive nuclear technology industry system including nuclear power, nuclear fuel recycling, nuclear environmental protection engineering and nuclear technology application industry. With accumulation of technical expertise and practical experience with respect to nuclear technology in the past decades, CNNC leads the nuclear technology application industry in China. As the isotope and irradiation technology application industry platform of CNNC, we would receive continuing and strong support from CNNC for our organic growth and future development, in particular, the domestication of radioisotopes raw materials and research and development of irradiation products by leveraging on the availability of CNNC's nuclear reactors and cyclotrons, resources on professional and technical staff, capabilities of research and development and proprietary technologies. For example, we plan to cooperate with CIAE and NPIC to utilize their nuclear reactors

#### **BUSINESS**

to materialize the domestic production of radioisotope raw materials for our imaging diagnostic and therapeutic radiopharmaceuticals and radioactive source products.

In addition, concurrent with CNNC's overall planning, we aim to capture the abundance of business opportunities presented by China's "One Belt, One Road" strategy to increase the sales of our products and services and expand our presence to overseas countries and areas in the future. As of the Latest Practicable Date, we had provided products and services in countries and regions in East Asia, Southeast Asia, Middle East and South America. Our overseas business largely coincides with the regions targeted by China's "One Belt and One Road" initiative. As the leading enterprise of isotopes and irradiation technology application in China, we are well positioned to leverage our research and development and manufacturing capability to increase the sales to the customers in the countries and regions of "One Belt and One Road". We believe that our Controlling Shareholder will support the development of our isotopes and irradiation technology application businesses.

# Leading enterprise in the field of isotopes and irradiation technology applications in China, well positioned to capture the attractive growth potential in the PRC isotopes and irradiation technology industries

We are the leading manufacturer of diagnostic and therapeutic radiopharmaceuticals and radioactive source products in China. We are also the leading EPC service provider of gamma ray irradiation facilities and irradiation service provider in China. We occupy the market leading position in the PRC isotopes and irradiation technology industries.

**Pharmaceuticals**. In 2017, we were the largest manufacturer of imaging diagnostic and therapeutic radiopharmaceuticals, UBT kits and analyzers, and RIA kits in terms of revenue in China, accounting for 40.4%, 75.4% and 35.0% of market share, respectively, according to Frost & Sullivan. Furthermore, core products of our pharmaceuticals segment are market leaders in China:

a. Imaging diagnostic and therapeutic radiopharmaceuticals. We were the largest manufacturer of certain major imaging diagnostic and therapeutic radiopharmaceuticals in China, including molybdenum-99/technetium-99m generator (鉬鍀發生器), technetium-99m labeled injections (鍀[99mTc]標記注射液), fluorine-18-FDG injection (氟[18F]脱氧葡糖注射液), sodium iodine-131 solution (碘[131]]化鈉口服溶液) and strontium-89 chloride injection (氯化鳃[89Sr]注射液), in terms of revenue in 2017 in China, according to Frost & Sullivan. As of the Latest Practicable Date, according to Frost & Sullivan, we offered the most comprehensive portfolio of imaging diagnostic and therapeutic radiopharmaceuticals in China, covering the imaging diagnostic areas of bone, heart, brain, lungs, liver, kidney, lymph node and thyroid, as well as treatment of hyperthyroidism, thyroid cancer, bone metastases, prostate cancer, brain cancer and other diseases. In addition, as of the Latest Practicable Date, we were also the only manufacturer of five imaging diagnostic and therapeutic radiopharmaceuticals in China, namely molybdenum-99/technetium-99m generator, sodium iodine-131 capsule for diagnosis purpose (碘[<sup>131</sup>]]化鈉膠囊(診斷用)), samarium-153 lexidronam injection (來昔決南釤[<sup>153</sup>Sm]注射液), sodium phosphate-32 oral solution (磷[32P]酸鈉口服溶液) and sodium iodohippurate-131 injection (鄰碘[131]]馬尿酸鈉注射液), according to Frost & Sullivan. According to Frost & Sullivan, the market for imaging diagnostic and therapeutic radiopharmaceuticals in the PRC is expected to increase from RMB2,506.0 million in 2017 to RMB6,512.2 million in 2022, representing a CAGR of 21.0% from 2017 to 2022.

b. UBT kits and analyzers. We ranked first in the UBT kits and analyzers market in terms of revenue in 2017 in China, according to Frost & Sullivan. We are the pioneer in UBT

technology in China. According to Frost & Sullivan, we were one of the first companies in China to engage in the research, development, manufacturing and sale of UBT kits and analyzers for diagnosis of helicobacter pylori infection. As of the Latest Practicable Date, we had the largest number of patents in connection with UBT products in China, and were also the only company in China with the capability of manufacturing all of carbon-13 UBT kits, carbon-14 UBT kits and UBT analyzers, according to Frost & Sullivan. The UBT kits and analyzers market in the PRC is expected to increase from RMB1,439.8 million in 2017 to RMB3,575.1 million in 2022, representing a CAGR of 19.9% from 2017 to 2022 according to Frost & Sullivan.

c. In vitro immunoassay diagnostic reagents and kits. According to Frost & Sullivan, we are the first company in China to specialize in the research, development, manufacturing and sale of radioimmunoassay kits, and also one of the earliest manufacturers of in vitro non-radioactive immunoassay diagnostic reagents in China. According to Frost & Sullivan, we were the largest manufacturer of radioimmunoassay kits in terms of revenue in 2017 in China. Our in vitro immunoassay diagnostic reagents and kits involve five immunoassay diagnosis approaches, namely radioimmunoassay (放射免疫), enzyme immunoassay (酶聯免疫), chemiluminescence immunoassay (化學發光免疫), time-resolved fluorescent immunoassay (時間分辨免疫) and colloidal gold immunochromatography (膠體金免疫色層), covering diagnostic areas of thyroid function, gonads, oncology, cardiovascular, renal, endocrine, diabetes, gastrointestinal disease, bone metabolism, hepatitis, viruses, cytokines and hypertension factors. The RIA kits market in the PRC is expected to increase from RMB251.7 million in 2017 to RMB291.8 million in 2022, representing a CAGR of 3.0% from 2017 to 2022, according to Frost & Sullivan.

Radioactive source products. In 2017, we were the largest medical and industrial radioactive source products manufacturer in terms of revenue in China, accounting for 84.5% and 53.4% of market share, respectively, according to Frost & Sullivan. In 2017, we were also a manufacturer of radioactive source products with the most comprehensive product portfolio in China, according to Frost & Sullivan. As of the Latest Practicable Date, we were the only radioactive source product manufacturer in China with the design and manufacturing capability to produce cobalt-60 sealed source for irradiation service, cobalt-60 sealed source for medical applications, iridium-192 and selenium-75 radioactive source for non-destructive testing purpose, californium-252 startup neutron source for nuclear reactor startup, americium-241/beryllium neutron source and cesium-137 radioactive source for oil well-logging purpose, according to Frost & Sullivan. The medical and industrial radioactive source products market in the PRC is expected to increase from RMB71.0 million and RMB360.5 million in 2017 to RMB106.8 million and RMB428.7 million in 2022, representing a CAGR of 8.5% and 3.5% from 2017 to 2022, respectively, according to Frost & Sullivan.

*Irradiation*. According to Frost & Sullivan, as of the Latest Practicable Date, we were two out of three qualified EPC service providers approved by the MEP to engage in the design, manufacturing and installation of irradiation facilities in China. We also provided our EPC service to overseas customers. In addition, according to Frost & Sullivan, in 2017, we were the third largest provider for irradiation service in terms of revenue in China. As of the Latest Practicable Date, we were also the only company that integrated the upstream production of radioactive source products with the downstream design and installation of irradiation facilities to provision of irradiation services, according to Frost & Sullivan. The irradiation service market in China is expected to increase from RMB1,093.5 million in 2017 to RMB1,418.5 million in 2022, representing a CAGR of 5.3% from 2017 to 2022, according to Frost & Sullivan.

According to Frost & Sullivan, the penetration of medical application of isotopes (including imaging diagnostic and therapeutic radiopharmaceuticals, UBT kits and analyzers, RIA kits and medical radioactive source products) in China is significantly lower than that in the United States. In the United States, per capita expenditure in medical application of isotopes grew from RMB39.1 in 2013 to RMB56.5 in 2017. During the same period, per capita expenditure in medical application of isotopes in China only grew from RMB2.0 in 2013 to RMB3.2 in 2017, indicating a low penetration of PRC medical application of isotopes market with huge growth potential compared with the market in the United States. We believe that, as a pioneer and market leader in the PRC isotopes and irradiation technology industries, we have significant advantages over our existing competitors and potential market entrants to benefit from the attractive opportunities in the promising PRC isotopes and irradiation technology industries.

# Comprehensive product portfolio with industry-leading technologies

We maintain a comprehensive portfolio of isotopes products for medical and industrial applications in China. As of the Latest Practicable Date, our portfolio of pharmaceuticals included 54 registered radiopharmaceuticals for imaging diagnostic and therapeutic purposes, four registered UBT kits, ten registered UBT analyzers and 147 registered in vitro immunoassay diagnostic reagents and kits. As of the Latest Practicable Date, our portfolio of radioactive source products included five medical radioactive source products and more than 70 industrial radioactive source products.

We have made significant investments in proprietary technologies to support our growing product portfolio. Our investment in research and development has resulted in self-developed technologies, proprietary technical know-how and new products. For example:

- we utilized the nuclear reactors and the cyclotrons to independently develop the radioisotope production technology for the purposes of manufacturing of radiopharmaceuticals and radioactive sources and irradiation processing;
- we utilized the heavy water nuclear reactor in Qinshan No. 3 Nuclear Power to independently develop the technology for manufacturing of cobalt-60 radioactive source with the annual designed capacity of up to six million Ci, which laid the foundation for the domestic supply of cobalt-60 radioactive sources for manufacturing radioactive source products for medical gamma knife and industrial irradiation purposes;
- we utilized the cyclotrons to independently develop the iodine-123 nuclide production technology, which laid a solid foundation for developing the iodine-123 labeled radiopharmaceuticals for early diagnosis and curative effect evaluation of Parkinson's disease and other neurological diseases in China;
- we developed the gel-type molybdenum-99/technetium-99m generators (凝膠型鉬鍀發生器) technology suitable for commercial production, which could reduce radioactive waste generated from the production of fission of molybdenum-99 raw material, cope with the risk of the global shortage of fission molybdenum-99 and ensure a stable supply of molybdenum-99/technetium-99m generators and technetium-99m labeled radiopharmaceuticals in China;
- according to Frost & Sullivan, we are the sole manufacturer which is able to produce radioactive source products with each of ceramic, enamel, powder metallurgy and electroplating method radioactive source preparation technology (陶瓷法、搪瓷法、粉末冶金法、電鍍法放射源製備工藝) in China, which enables us to produce a variety of radioactive

- source products with 20 species of radioisotopes for diagnostic and therapeutic purposes, nuclear reactors startup, oil field well-logging and content analysis purposes; and
- we offer EPC service for irradiation facilities with patented proprietary technology, enabling us to explore opportunities in China and overseas.

Our leading technical advantages in the field of isotope and irradiation technology applications in China are also demonstrated by our participation in the drafting of national technical standards for products related to isotope and irradiation technology applications in China. Our members of research and development team were involved in the drafting of the following standards: "Sealed Radioactive Sources — General Requirements and Classification" (GB 4075-2009), "Molybdenum-99/technetium-99m Chromatographic Generators (fission)" (GB 13172-2009), "Tin-113/Indium-113m Generators" (GB/T 11810-2008), "General principle of nomenclature and classification of radioisotope products" (GB/T 14503-2008), "High activity cobalt-60 Sealed Radioactive Source" (GB/T 7465-2015) and the nuclear industry standard "Human Chorionic Gonadotrophin Radioimmunoassay Kits" (EJ/T 950-95).

Our manufacturing facilities comply with stringent quality control standards and procedures. We have obtained necessary GMP certification for all of our pharmaceuticals production bases. As of the Latest Practicable Date, we had also obtained valid quality management system certification, (GB/T 19001-2008/ISO 9001: 2008; ISO 9001: 2015 Standard), occupational health and safety management system certification, environmental management system certification (GB/T 24001-2004/ISO 14001: 2004; ISO 14001: 2015 Standard, GB/T28001-2011/OHSAS18001: 2007 Standard) in connection with the manufacturing of our imaging diagnostic and therapeutic radiopharmaceuticals and radioactive source products. We have obtained the medical equipment gamma irradiation sterilization TUV (ISO 13485: 2012) certification, the FDA (QSR/cGMP) certification and the general requirements for the competence of testing and calibration laboratories (ISO/IEC 17025:2005) certification with respect to our irradiation business.

### Nationwide sales network and diversified marketing initiatives

We have established a nationwide network for the sales of our imaging diagnostic and therapeutic radiopharmaceuticals, UBT kits and analyzers, in vitro immunoassay diagnostic reagents and kits in China. As of December 31, 2017, our sales network, comprising our own sales force, promoters and distributors, covered 31 provinces, municipalities and autonomous regions in China. In addition, we have an extensive end-user base. As of December 31, 2017, our sales network covered more than 10,000 hospitals and other medical institutions, including over 1,400 Class III hospitals, 4,500 Class II hospitals and 4,300 Class I hospitals in China. See "Business — Pharmaceuticals — Sales and Customers of Pharmaceuticals" in this prospectus for further details.

We have launched diversified marketing and promotional activities which enhance our brand awareness and recognition of our products. Our sales and marketing efforts are characterized by a strong emphasis on academic promotion. We regularly organize and participate in various academic conferences, seminars and symposia, which include large-scale national and provincial conferences, as well as smaller events tailored for specific hospital departments. During these conferences, we also support satellite events that focus on the diagnostic and therapeutic areas related to our pharmaceuticals. We invite leading experts in these diagnostic and therapeutic areas to speak on the latest developments and share their experience. Through these academic marketing efforts, we aim to educate nuclear medicine physicians and other medical professionals on our products and strengthen our academic recognition and brand awareness in the nuclear medicine community in China.

Furthermore, we also maintain long-term cooperative relationships with national academic associations in the field of isotopes medical and industrial applications, such as China Nuclear Society (中國核學會), China Isotopes and Radiation Association (中國同位素與輻射行業協會), China Medical Association (中華醫學會) and China Anti-Cancer Association (中國抗癌協會). Since 2012, together with Chinese Society of Nuclear Medicine (中華醫學會核醫學分會), we have provided technical and practical training with respect to the treatment of thyroid-related diseases using radioisotope of iodine-131 to physicians at local hospitals and other medical institutions with basic nuclear medicine facilities and limited number of nuclear medicine physicians, including those in rural areas. We believe that such training has improved the essential knowledge, skills and abilities required of medical professionals and thus the quality of nuclear medicine services at the grass-root level in China. We entered into radioisotopes diagnosis therapy model cooperation agreement (核素治療工作推進示範基地合作協議) with Chinese Society of Nuclear Medicine (中華醫學會核醫學分會) to jointly select local hospital candidates to provide technical and practical training with respect to the treatment of thyroid-related diseases using iodine-131. From 2012 to 2017, we had provided technical and practical training to a total of 35 hospitals and other medical institutions.

Our academic marketing initiatives and the training programs in local areas are designed to improve the essential knowledge, skills and abilities of nuclear medicine physicians and other medical practitioners at local hospitals and other medical institutions to raise our profile, enhance awareness of our products in the nuclear medical community and among patients, and provide us with valuable clinical data to improve our products. We believe that all of these help us more effectively market and sell our products.

# Robust pipeline of products candidates supported by strong research and development capabilities

Our research and development competency has successfully enabled us to attain our leading market position in the field of isotopes and irradiation technology applications in China. We are committed to understanding and anticipating market demand and developing new medical and industrial application services and radioisotope products. Each of our four business segments has its own research and development team. Our manufacturing facilities housed in aggregate 168 research and development staff, approximately 71.0% of which possess bachelor or advanced degrees in pharmaceuticals, chemistry, biology, physics and engineering disciplines, as of December 31, 2017. In addition, there were more than 150 people with senior title of the relevant professional posts (高級職稱), five people entitled to the special allowance of State Council (國務院特殊津貼) and three people as doctoral tutors (博士生導師) in China as of December 31, 2017.

We continue to seek to enhance the performance of our products and develop our product portfolio to meet customer demands. We are currently participating in the research and development of a variety of imaging diagnostic and therapeutic radiopharmaceuticals and in vitro immunoassay diagnostic reagents and kits. As of the Latest Practicable Date, we had nine imaging diagnostic and therapeutic radiopharmaceuticals under research and development, of which one radiopharmaceutical under research pending approval for production (i.e. sodium iodine-131 capsule for therapeutic purpose), one imaging diagnostic and therapeutic radiopharmaceutical at stage of clinical trials (i.e. iodine-131-MIBG injection), three imaging diagnostic and therapeutic radiopharmaceuticals under research pending application for approval for clinical trials (i.e. sodium fluoride-18 injection, palladium-103 sealed source and technetium-99 methylene diphosphonate injection) and four imaging diagnostic and therapeutic radiopharmaceuticals under various stages of research and development. In

addition, we also plan to engage in the research and development of various imaging diagnostic and therapeutic radiopharmaceuticals to be funded by the net proceeds of the Global Offering. See "Business — Research and Development" in this prospectus for further details.

Our research and development efforts have also translated into a growing intellectual property portfolio. As of the Latest Practicable Date, we had registered more than 200 patents and had submitted more than 60 patent applications that are material to our business in the PRC. Our key patents are related to the design, synthesis, production and examination of imaging diagnostic and therapeutic radiopharmaceuticals, the preparation and production process of UBT kits and analyzers, the development of in vitro immunoassay diagnostic reagents and related preparation of raw materials of the in vitro immunoassay diagnostic reagents, the design and manufacturing of radioactive sources, industrial tracer technologies and the modification of properties of special materials through irradiation. As of the Latest Practicable Date, we had registered 25 computer software copyrights mainly related to the control over the production of radiopharmaceuticals and the operation of UBT analyzers. See "Statutory and General Information — 2. Further Information about Our Business — B. Our Intellectual Property Rights" in Appendix VI to this prospectus for further details.

Our research and development expenses (excluding amortization cost) were approximately RMB44.6 million, RMB58.7 million and RMB73.5 million for the years ended December 31, 2015, 2016 and 2017, respectively. In the next five years, we intend to increase investment in research and development in exploring and developing new products to keep abreast of the new development of medical and industrial application of radioisotopes. We intend to continue to leverage our technical advantages and research and development capabilities to broaden our product portfolio as well as to develop advanced production technologies.

# Experienced and visionary senior management team leading us to stable growth

Our management team has extensive experience in, and a profound understanding of the history and future trends of the isotopes and irradiation technology industries in China. Our key senior management has decades of experience in the isotopes and irradiation technology industries and extensive practical experience in overseeing the manufacturing of imaging diagnostic and therapeutic radiopharmaceuticals and radioactive source products. Mr. Wu Jian, our executive director and general manager, has more than 30 years of experience in the isotopes and irradiation technology industries in China. Mr. Wu Jian currently is the executive vice president of the 6th Council of China Isotope and Radiation Association (中國同位素與輻射行業協會第六屆理事會常務副理事長), the standing committee member of the 10th Committee of Chinese Society of Nuclear Medicine (中華醫學會核醫學分會第十屆委員會常務委員) and the standing committee member of the 10th Committee Medicine Branch Beijing Medical Association Nuclear of (北京醫學會核醫學分會第十屆委員會常務委員). Mr. Wu is responsible for the overall daily management of our business operations. Dr. Du Jin, our executive director and chief engineer, has more than 30 years of experience in the isotopes and irradiation technology industries in China. Dr. Du currently is a member of the National Committee for Nuclear Energy Standardization (全國核能標準化技術委員會) (SAC/TC58) and the vice committee director of the radioisotope Technical Committee (放射性同位素分技術委員會) (SAC/TC58/SC4). Dr. Du is in charge of the research and development of new products and new technologies in our Group. Both Mr. Wu Jian and Dr. Du Jin are the recipients of the special allowance of State Council. Mr. Fan Guomin, our deputy general manager, has more than 20 years of experience in the isotopes and irradiation technology industries in China. Mr. Fan oversees the safety and quality management of our Group. Our senior management team have led us in reaching

a market leading position in the isotopes and irradiation technology industries offering a comprehensive product portfolio in China with a proven track record of executing development plans as well as delivering stable revenue growth and achieving market expansion.

#### **OUR STRATEGIES**

Our objective is to (i) establish the comprehensive nuclear technology application industrialization system with characteristics of scientific management, advanced technologies, reasonable industrial layout and strong innovation capability, (ii) formation of the brand name of "China Tongfu" ("中國同幅") as the connotation of market leadership, professionalism, and high and new technology; and (iii) become an important and renowned enterprise in the international isotopes and irradiation technology industry. To this end, we intend to implement the following key strategies:

# Expand product portfolio through investments in the research and development projects

Our leadership in the PRC isotopes and irradiation technology industries puts us in a favorable position to develop our products and services.

**Pharmaceuticals**. We intend to maintain and further strengthen our leadership position in the medical application of radioisotopes in China through increasing our investment in the research and development projects.

- a. Imaging diagnostic and therapeutic radiopharmaceuticals. We are engaged in the research and development of a wide array of imaging diagnostic and therapeutic radiopharmaceuticals for the diagnosis of Parkinson's disease, neuroendocrine tumor, prostate cancer and other diseases. According to Frost & Sullivan, there is an increasing market demand for diagnosis and therapy of cardiovascular diseases, cerebrovascular diseases and cancers in China. Our development strategies are in line with the market demand and industry development trend. Our leadership in the field of imaging diagnostic and therapeutic radiopharmaceuticals puts us in a favorable position to build upon such success and develop more diverse products in this field in China.
- b. UBT kits and analyzers. We intend to increase our investment in the research and development of carbon-13 monoxide (碳13—氧化碳氣體). Carbon-13 monoxide is used to produce carbon-13 urea which, in turn, is the key raw material of carbon-13 UBT kits. We plan to materialize the domestic production of carbon-13 monoxide so as to reduce raw materials purchase cost, enhance our competitiveness and further strengthen our market leadership position in UBT products in China.
- c. In vitro immunoassay diagnostic reagents. We intend to increase our investment in research and development projects of CLIA reagents to further strengthen our market position for in vitro immunoassay diagnostic reagents. We are engaged in the research and development of fully-automated tubular CLIA reagents and plate-based CLIA reagents. The research and development projects of such CLIA reagents are expected to be completed by 2021. According to Frost & Sullivan, the market demand for in vitro immunoassay diagnostic reagents is expected to increase in China.
- d. Other pharmaceuticals. We intend to invest in research and development of photosensitive pharmaceuticals used for photodynamic therapy for cancers not suitable for operations or radiotherapy and technetium-99 methylene diphosphonate injection for the treatment of

rheumatoid arthritis to complement our pharmaceuticals offering. The research and development of such products are expected to be completed by 2019.

Radioactive source products. We endeavor to materialize the domestic production of key raw materials of our radioactive source products by leveraging on the in-depth expertise and manufacturing capability of our Controlling Shareholder on cobalt-60 for medical applications (醫用鈷-60原料) to reduce the reliance on overseas suppliers. As of the Latest Practicable Date, we imported cobalt-60 to manufacture cobalt-60 source products for medical applications. In order to produce cobalt-60 source products for medical applications domestically, in August 2016 and January 2017, we entered into long-term cooperation agreements with Qinshan No.3 Nuclear Power, Shanghai Nuclear Engineering Research and Design Institute and China North Nuclear Fuel, respectively to kick start the research and development of commercial production of cobalt-60 for medical applications. See "Business — Research and Development" in this prospectus for details. We expect that the commercial production of Cobalt-60 for medical application would commence in 2019. We believe that by 2019, we will become the first and the sole domestic supplier of cobalt-60 for medical application in China, which would enable us to better control the raw materials cost for our radioactive source products and, in turn, increase our profitability accordingly.

*Irradiation*. In addition to the gamma ray irradiation, we are committed to provide convenient, efficient and high cost-performance electron accelerator (電子加速器) irradiation alternatives to render more comprehensive irradiation service to our customers. Therefore, we plan to cooperate with CIAE to engage in providing EPC service of electron accelerator irradiation facilities to our customers as well as to use electron accelerator to conduct the research and development of new materials, new products and new production technologies of irradiation.

*Isotopes*. We currently import substantially all of radioisotopes raw materials from overseas suppliers. In order to reduce the reliance on overseas supplies, we plan to cooperate with CIAE and NPIC to utilize nuclear reactors for radioisotopes production. We also plan to leverage on our expertise and manufacturing capabilities on radioisotope-related products to conduct research and development and manufacturing of stable isotope products such as boron-10 which are to be used in connection with nuclear power industries.

As of the Latest Practicable Date, the cooperation with CIAE and NPIC was at an early stage. We have not contemplated a definitive plan with respect to the timeline and estimated investment amount. For further details of other research and development projects, see "Business — Research and Development" and "Future Plan and Use of Proceeds" in this prospectus. We believe that we will be able to capture the anticipated growing market demand in relevant business segments and achieve sustainable development and growth in revenue of our business.

# Increase market penetration by expanding our manufacturing capacity and strengthening our sales and marketing effort

We are implementing our plans to establish new manufacturing facilities to increase our production capacities with respect to imaging diagnostic and therapeutic radiopharmaceuticals and UBT products. We plan to build two new and modern manufacturing and research and development bases for imaging diagnostic and therapeutic radiopharmaceuticals in Xianghe, Hebei province ("Xianghe Base") and Chengdu, Sichuan province ("Chengdu Base") to expand our manufacturing capabilities of imaging diagnostic and therapeutic radiopharmaceuticals and to meet the operation requirements for standardized and large-scale production. Moreover, in order to timely meet the

increasing demand of short half-life radiopharmaceuticals in the population centers in China, we intend to establish a total of 26 manufacturing and distribution subsidiaries to produce and sell technetium-99m labeled injections and fluorine-18-FDG injection by 2023. We are also in the process of establishing our two new UBT products manufacturing bases to meet the increasing market demand for our UBT kits and analyzers. For more details, see "Business — Expansion Plan" and "Future Plan and Use of Proceeds" in this prospectus.

We plan to leverage on Xianghe Base and Chengdu Base, the planned establishment of 26 manufacturing and distribution facilities of short half-life radiopharmaceuticals and two new UBT products bases to explore marketing channels to increase our market penetration. In addition, we will proactively participate in the implementation of new local medical insurance reimbursement and charging program so that more of our imaging diagnostic and therapeutic radiopharmaceuticals can be included in the National Medical Insurance Pharmaceuticals Catalog to increase the sales of our products and market penetration.

We are in the process of consolidating and streamlining our existing sales and marketing resources in order to form an integrated sales platform of our imaging diagnostic and therapeutic radiopharmaceuticals and radioactive source products so as to establish a more dedicated sales and marketing force and an effective sales management system. We intend to recruit more experienced sales and marketing talent and provide them with more systematic training on our products and services. We plan to build up our team of talented recruits to provide interactive technical support to our customers and further personalize our technical solutions to each customer to capture more market share. We also intend to actively participate in trade shows, symposia, conventions, seminars, and other notable events in the PRC to promote our brand and industry reputation. We also target to establish new long-term relationships with leading nuclear physicians and researchers in the imaging diagnostic and therapeutic radiopharmaceuticals industry by reinforcing our sales and marketing efforts to better serve their needs. We also intend to expand our sales coverage in the PRC to provide more efficient support to our customers. Furthermore, we have established an international marketing team dedicated to market and promote our radiopharmaceuticals, radioactive source products as well as EPC service for irradiation facilities in Asia and South America. We believe that through implementing the aforementioned strategies, we can strengthen our market position and expand our sales network in the PRC and overseas markets.

### Complement organic growth through strategic acquisitions

Our existing business is rooted in our organic growth of operations. We intend to combine our organic growth of operations with the strategy of selectively making acquisitions in attractive segments and downstream industry chain players of the isotopes and irradiation technology industry to complement our existing operations, to align those acquisitions with our expansion strategies, and to increase our revenues and profits. Among these opportunities, we will focus on products and technologies that would complement our existing product portfolio and service such as irradiation-related products manufacturer, third-party independent medical testing service supplier or third-party in vitro diagnosis service supplier with cutting-edge proprietary technology. We will also consider opportunities outside our current businesses if the growth prospects and profitability are sufficiently attractive. For example, we may consider to expand our businesses to generic drugs, genome sequencing and molecular diagnosis industries through acquisitions.

Our key selection criterion is whether the acquisitions would strengthen our market leadership in the field of isotopes and irradiation technology in China. We will also select acquisition targets

based on each candidate's respective market share, research and development capabilities, and reputation in the markets that we seek to enter or where we have not yet established a strong presence. We plan to leverage the strengths of potential targets to underline our existing market position or establish a presence in a new market. We also believe that our relationships with many industry participants and our knowledge of, and experience in, the industries of medical and industrial application of radioisotopes will attract potential acquisition targets to work with us. We believe that we will be able to identify attractive acquisition targets that complement our existing capabilities and businesses and allow us to continue to grow. As of the Latest Practicable Date, we are interested in, and are considering, the Post-TRP Acquisitions. As of the Latest Practicable Date, except for the Asset Acquisition Agreement entered into among the Company, Saiwang, Mr. Cao Maofen and CNNC Taizhou on December 14, 2017, and the Share Purchase Agreement entered into between the Company and Liuhe Zhongxin on April 27, 2018, we had not entered into any form of agreement (binding or otherwise) with the counterparties in relation to the Post-TRP Acquisitions. For the details relating to the Possible Acquisitions, see "History, Development and Corporate Structure — Possible Commercial Arrangement after Track Record Period" in this prospectus.

# Expand and leverage our independent clinical laboratory service capacities to enrich our service offerings

We plan to relocate the independent clinical laboratory services facility to a new site in Beijing and establish our presence in other areas of China so we can expand our service capacity and offerings. As of the Latest Practicable Date, we have leased a premise for new office space and production facilities in Beijing and started renovation works in January 2018. Complementary to the relocation, we also plan to leverage our expertise on the independent clinical laboratory services to engage in the online community medical examination services in the future. We would like to capitalize the concept of "community medical care service (社區醫療服務)" to establish an online medical care service platform, through which residents of the local communities could be provided with online consultancy, medical record data collection and uploading, curative effect assessment and later stage follow up services.

#### **OUR BUSINESS SEGMENTS**

We have the following four business segments:

- Pharmaceuticals. In this segment, we are primarily engaged in the research, development, manufacturing and sale of a broad range of (i) imaging diagnostic and therapeutic radiopharmaceuticals; (ii) UBT kits and analyzers, and (iii) in vitro immunoassay diagnostic reagents and kits in China. We mainly sell these pharmaceuticals directly to hospitals and other medical institutions in China for the purposes of diagnosis, treatment and efficacy assessment of various diseases.
- Radioactive source products. For radioactive source products segment, we are primarily engaged in the research, development, manufacturing and sale of a variety of medical and industrial radioactive sources products as well as provision of related technical services. We primarily provide radioactive source products and technical services to radiotherapy equipment manufacturers, irradiation service providers, non-destructive testing equipment manufacturers and service providers and oil field operators in China for use in radiotherapy, irradiation service, non-destructive testing and oil field tracer technical services, respectively.

- *Irradiation*. With respect to our irradiation business, we are primarily engaged in (i) providing irradiation service to manufacturers of medical devices, food, traditional Chinese medicine and cosmetics for sterilization in China, and (ii) providing EPC services for the design, manufacturing and installation of gamma ray irradiation facilities to irradiation service providers in China by leveraging our leading irradiator design capability.
- Independent clinical laboratory services and other businesses. As a downstream extension of our in vitro immunoassay diagnostic reagents and kits sales, we provide independent clinical laboratory services to hospitals and other medical institutions in China. We offer such services with respect to hepatitis, endocrine, bone metabolism, cardiovascular disease, diabetes, blood diseases, trace elements, prenatal and postnatal care, tumors, thyroid function, sex hormone function, kidney and urinary system, autoimmune diseases, humoral cellular immunity, digestive tract diseases and bone marrow cytology. In addition, we were also engaged in copper trading during the Track Record Period. We discontinued the copper trading business in April 2016 in order to focus on our core business.

The table below sets forth our revenue by business segment for the periods indicated:

	Year ended December 31,						
	2015		2016		2017		
	Amount	%	Amount	%	Amount	%	
	(RMB in millions, except in percentage)						
Segments:							
Pharmaceuticals	1,773.6	82.4	1,971.1	83.4	2,253.8	84.3	
Radioactive source products	275.2	12.8	287.7	12.2	292.2	10.9	
Irradiation	47.9	2.2	51.1	2.1	65.9	2.5	
Independent clinical laboratory services and other businesses	55.4	2.6	53.2	2.3	60.1	2.3	
Total	2,152.1	100.0	2,363.1	100.0	2,672.0	100.0	

#### **PHARMACEUTICALS**

Our pharmaceuticals business encompasses the research, development, manufacturing and sale of a broad range of imaging diagnostic and therapeutic radiopharmaceuticals, UBT kits and analyzers and in vitro immunoassay diagnostic reagents and kits in China. In terms of revenue, we were the largest manufacturer of imaging diagnostic and therapeutic radiopharmaceuticals, UBT kits and analyzers and RIA kits in China for 2017, accounting for 40.4%, 78.0% and 35.0% of market share, respectively, according to Frost & Sullivan. We also import certain radioisotopes and labeled compounds from overseas manufacturers and on-sell to academic and research institutions for research and development in China.

We primarily conduct our pharmaceuticals business through HTA, Headway, CNGT and BNIBT. In 2017, HTA and Headway in aggregate contributed to 72.2% and 47.2% of our total revenue and profit, respectively (before elimination of intra-group transactions). HTA is a public traded company whose shares are listed on the NEEQ. As of the Latest Practicable Date, we held 68.3% of the equity interests in HTA. As of the same date, the remaining equity interests in HTA were held by a subsidiary of CNNC and other minority shareholders, with a shareholding of 3.0% and 28.7%, respectively. As of the Latest Practicable Date, we held 54.1% of the equity interests in Headway. As of the same date, the remaining equity interests in Headway were held by an associate of CNNC and other minority shareholders, with a shareholding of 27.9% and 18.0%, respectively.

#### **Product Portfolio**

Our pharmaceuticals are categorized into three major types of products:

- imaging diagnostic and therapeutic radiopharmaceuticals which are used in the diagnosis, treatment and effectiveness assessment of various diseases;
- UBT kits and analyzers which are used for the diagnosis of *H. pylori* infection in the stomach; and
- in vitro immunoassay diagnostic reagents and kits which are used within in vitro immunoassay tests relating to thyroid function, gonads, oncology, cardiovascular, renal, endocrine, diabetes, gastrointestinal disease, bone metabolism, hepatitis, viruses, cytokines and hypertension factors.

The following table sets forth a breakdown of revenue for our pharmaceuticals segment by product type for the periods indicated:

	Year ended December 31,						
	2015		2016		016 2017		
	Amount	%	Amount	%	Amount	%	
	(RMB in millions, except in percentage)						
Imaging diagnostic and therapeutic radiopharmaceuticals	871.9	49.2	912.8	46.3	1,011.3	44.9	
UBT kits and analyzers	771.5	43.5	919.5	46.6	1,123.7	49.9	
In vitro immunoassay diagnostic reagents and kits	130.2	7.3	138.8	7.1	118.8	5.3	
Total	1,773.6	100.0	1,971.1	100.0	2,253.8	100.0	

#### Imaging diagnostic and therapeutic radiopharmaceuticals

Our imaging diagnostic and therapeutic radiopharmaceuticals are mainly used in the diagnosis, treatment and effectiveness assessment of various types of diseases. Patients would be exposed to radiation when our imaging diagnostic and therapeutic radiopharmaceuticals are administered. However, the radiation dose to patients from imaging diagnostic and therapeutic radiopharmaceuticals is kept to minimum for diagnosis or treatment purpose. Apart from the minimal radiation exposure, there is not any material side effect of our imaging diagnostic and therapeutic radiopharmaceuticals. During the Track Record Period and up to the Latest Practicable Date, there was not any medical claims with respect to our imaging diagnostic and therapeutic radiopharmaceuticals. As of the Latest Practicable Date, we had 10 imaging diagnostic and therapeutic radiopharmaceuticals included in the National Medical Insurance Pharmaceuticals Catalog issued by the MOHRSS.

The following table sets forth the details of our key imaging diagnostic and therapeutic radiopharmaceuticals:

Product	Major diagnostic/therapeutic areas	Route of administration	Half-life of the radioisotopes	Recommended Shelf-life
Fluorine-18-FDG injection (氟[ <sup>18</sup> F]脱氧葡糖注射液)	Detecting and staging of tumors and the analysis of curative effectiveness, as well as diagnosis of myocardial viability (心肌活度) and brain imaging	IV	109 minutes	6 hours

Product	Major diagnostic/therapeutic areas	Route of administration	Half-life of the radioisotopes	Recommended Shelf-life
Molybdenum-99/Technetium- 99m generator (鉬鍀發生器)	A device used to extract technetium-99m from decaying molybdenum-99; technetium-99m is used with freeze-dried kit to form imaging diagnostic radiopharmaceuticals to be used for diagnosis of heart disease and metastatic bone cancer as well as other diseases	_	Molybdenum-99 has a half-life of 66 hours	Fission type: 14 days Gel type: 15 days
Technetium-99m labeled injections <sup>1</sup> (鍀 [ <sup>99m</sup> Tc] 標記注射液)	For diagnosis of diseases related to brain, vascular, myocardial, bone, liver, kidney, lymph node and lungs	IV	6.0 hours	6 hours
Sodium Iodine-131 oral solution (碘[ <sup>131</sup> I]化鈉口服溶液)	For diagnosis and treatment of hyperthyroidism, thyroid cancer and metastatic cancer and other thyroid-related diseases	Oral	8.0 days	30 days
Iodine-125 sealed source (碘[ <sup>125</sup> I]密封籽源)	For treatment of prostate cancer and other tumors not suitable for surgeries, as well as for implantation treatment of residual lesions following tumor resection	Minimally invasive surgery implant	59.4 days	two months
Strontium-89 chloride injection (氯化鍶[89Sr]注射液)	Relief of pain from late malignant tumor bone metastases caused by prostate cancer and breast cancer	IV	50.6 days	28 days

#### Note:

(1) Our technetium-99m labeled injections include seven types of technetium-99m related injections, including: technetium-99m bicisate injection, technetium-99m succimer injection, technetium-99m methoxy isobutyl isonitrile injection, technetium-99m albumin aggregated injection, technetium-99m pentetate injection, technetium-99m L-ethylenedicysteine injection, and technetium-99m MDP injection.

# Fluorine-18-FDG injection (氟 [18F] 脱氧葡糖注射液)

Fluorine-18 is a positron emitter with a half-life of 109 minutes. It is produced in medical cyclotrons (醫用回旋加速器), usually from oxygen-18, and then chemically attached to a pharmaceutical to form the relevant imaging diagnostic radiopharmaceuticals. Fluorine-18-FDG injection is a radiopharmaceutical labeled with fluorine-18 most widely used in clinical application. It is a glucose

metabolism imaging agent and is mainly used for the detecting and staging of tumors and the analysis of curative effectiveness. It is also used for diagnosis of myocardial viability and brain imaging.

According to Frost & Sullivan, we were the largest manufacturer of fluorine-18-FDG injections in China, in terms of revenue, in 2017, accounting for 83.6% in the market share. Revenue generated from our sales of fluorine-18-FDG injections was RMB148.8 million, RMB144.4 million and RMB170.4 million in 2015, 2016 and 2017, representing 17.1%, 15.8% and 16.8%, respectively, of our total revenue for imaging diagnostic and therapeutic radiopharmaceuticals in the same periods.

# Molybdenum-99/Technetium-99m generator (鉬鍀發生器)

Technetium-99m is a commonly used medical isotope for radiopharmaceuticals and is derived from molybdenum-99, a radioisotope produced in nuclear reactors. Molybdenum-99 naturally decays into technetium-99m. We use molybdenum-99 imported from overseas suppliers to manufacture molybdenum-99/technetium-99m generators which allow the end user to obtain technetium-99m. Technetium-99m's short half-life of six hours makes storage impossible and transportation expensive. Instead its parent nuclide molybdenum-99 is supplied to hospitals in the form of a molybdenum-99/technetium-99m generator, colloquially known as a "technetium cow" or a "moly cow", which is a device that can be easily transported over long distances to hospitals where its decay product is technetium-99m. Technetium-99m is then used with freeze-dried kit to form radiopharmaceuticals for diagnosis of heart diseases and metastatic bone cancer as well as other diseases. We also supply freeze-dried kit products that we produced independently or purchased from other companies to the end users.

According to Frost & Sullivan, we were the only manufacturer of molybdenum-99/technetium-99m generators in China as of the Latest Practicable Date. Revenue generated from our sales of molybdenum-99/technetium-99m generators was RMB139.7 million, RMB134.7 million and RMB157.8 million, respectively, in 2015, 2016 and 2017, representing 16.0%, 14.8% and 15.6%, respectively, of our total revenue for imaging diagnostic and therapeutic radiopharmaceuticals in the same periods.

# Technetium-99m labeled injection (鍀[99mTc]標記注射液)

Technetium-99m is a single photon radioisotope widely used in clinical application. It is generated by molybdenum-99/technetium-99m generator. Our technetium-99m labeled injections are primarily used for diagnosis of diseases in the organs or tissues, including brain, vascular, myocardial, bone, liver, kidney, lymph node and lungs.

According to Frost & Sullivan, we were the largest manufacturer of technetium-99m labeled injections in China in terms of revenue in 2017, accounting for 72.2% of the market share. Revenue generated from our sales of technetium-99m labeled injections was RMB86.3 million, RMB90.7 million and RMB105.7 million, respectively, in 2015, 2016 and 2017, representing 9.9%, 9.9% and 10.5%, respectively, of our total revenue for imaging diagnostic and therapeutic radiopharmaceuticals in the same periods.

# Sodium iodine-131 oral solution (碘[131]]化鈉口服溶液)

Iodine-131 is a beta and gamma emitter. It is used to destroy both thyroid and thyroid cancer tissues via beta radiation. It can also be seen by a gamma camera and can serve as an imaging

diagnostic tracer when treatment is also being attempted at the same time. Our sodium iodine-131 oral solution is used primarily for diagnosis and treatment of thyroid related diseases, such as hyperthyroidism, thyroid cancer and metastatic cancers. Our sodium iodine-131 oral solution is also used to produce iodine-based pharmaceuticals for diagnosis or treatment of other tumors.

According to Frost & Sullivan, we were the largest manufacturer of sodium iodine-131 oral solution in China, in terms of revenue, in 2017, accounting for 96.9% of the market share. Revenue from our sales of sodium iodine-131 oral solution was RMB233.3 million, RMB253.5 million and RMB275.4 million, respectively, in 2015, 2016 and 2017, representing 26.8%, 27.8% and 27.2%, respectively, of our total revenue for imaging diagnostic and therapeutic radiopharmaceuticals in the same periods.

# Iodine-125 sealed source (碘 [125]] 密封籽源)

Iodine-125 is a radioisotope of iodine, which is widely used in the radioactive immunoassay diagnosis or brachytherapy. Iodine-125 was sealed in a titanium tube to form iodine-125 sealed source. It is implanted into body to kill tumor cells using radioactive rays. Iodine-125 sealed source is not only suitable for treatment of prostate cancer and other tumors unsuitable for surgery but also for implantation treatment of residual lesions following tumor resection. Iodine-125 sealed source is suitable for treatment of a wide range of diseases, including lungs cancer, breast cancer, pancreatic cancer, liver cancer, prostate cancer and gynecological tumor.

According to Frost & Sullivan, we were the third largest manufacturer of iodine-125 sealed source in China, in terms of revenue, in 2017, accounting for 21.4% of the market share. In addition to the sale of iodine-125 sealed source manufactured by ourselves, we also sell iodine-125 sealed source manufactured by Shanghai GMS Pharmaceutical as its exclusive distributor. The existing distribution agreement between Shanghai GMS Pharmaceutical and us with respect to the sale of iodine-125 sealed source expires at December 31, 2020. The salient terms of the distribution agreement include, among others, designated distribution area, unit price, product quality requirements, payment schedule, and after-sales service. Revenue generated from the sales of iodine-125 sealed source manufactured by Shanghai GMS Pharmaceutical amounted to RMB87.9 million, RMB92.9 million and RMB90.1 million in 2015, 2016 and 2017, respectively.

Revenue from our sales of iodine-125 sealed source was RMB164.4 million, RMB188.2 million and RMB200.8 million, respectively, in 2015, 2016 and 2017, representing 18.9%, 20.6% and 19.9%, respectively, of our total revenue for imaging diagnostic and therapeutic radiopharmaceuticals in the same periods.

# Strontium-89 chloride injection (氯化鍶 [89Sr] 注射液)

Strontium-89 is a beta emitter. Our strontium-89 chloride injection is primarily used as the palliative therapeutic agent (姑息治療劑) for relieving bone pain from late malignant tumor bone metastases caused by prostate cancer and breast cancer, serving as a supplementary way for relieving bone pain.

According to Frost & Sullivan, we were the largest manufacturer of strontium-89 chloride injections in China, in terms of revenue, in 2017, accounting for 97.7% of the market share. Revenue from our sales of strontium-89 chloride injection was RMB74.4 million, RMB81.5 million and RMB85.2 million, respectively, in 2015, 2016 and 2017, representing 8.5%, 8.9% and 8.4%,

respectively, of our total revenue for imaging diagnostic and therapeutic radiopharmaceuticals in the same periods.

Other diagnostic and therapeutic radiopharmaceuticals

We also produce other diagnostic and therapeutic radiopharmaceuticals for renal function diagnosis and treatment of polycythemia and bone metastases. Revenue from our sales of these other radiopharmaceuticals for diagnostic and therapeutic purposes was RMB25.0 million, RMB19.8 million and RMB16.0 million, respectively, in 2015, 2016 and 2017, representing 2.8%, 2.2% and 1.6%, respectively, of our total revenue for imaging diagnostic and therapeutic radiopharmaceuticals in the same periods.

# UBT kits and analyzers

Our UBT kits mainly include carbon-14 UBT kit (尿素[14C]呼氣試驗藥盒) and carbon-13 capsule UBT kit (尿素[13C]膠囊呼氣試驗藥盒). Our UBT analyzers mainly include carbon-14 helicobacter pylori analyzer with card (卡式14C幽門螺旋杆菌測試儀), carbon-14 helicobacter pylori analyzer with liquid scintillation (液閃14C幽門螺旋杆菌測試儀) and carbon-13 breath analyzer with infra-red spectrophotometer (紅外13C呼氣試驗測試儀).

UBT is a non-invasive method of diagnosis of *H. pylori* infection. In a UBT, patients swallow a capsule containing urea made from carbon-13 or carbon-14. If *H. pylori* is present in the stomach, the urea is broken up and turned into carbon dioxide which is absorbed across the lining of the stomach and into the blood. It then travels in the blood to the lungs where it is excreted in the breath. Samples of exhaled breath are collected and the content of carbon-13 or carbon-14 in the exhaled carbon dioxide is measured. If there is obvious change in the content of carbon-13 or carbon-14 in the breath, it means that *H. pylori* is present in the stomach. Otherwise, *H. pylori* is not present.

According to Frost & Sullivan, in 2017 we were the largest UBT kits and analyzers manufacturer, in terms of revenue, in China, accounting for 78.0% of market share. We are the pioneer of the UBT technology in China. According to Frost & Sullivan, we were one of the first companies in China to engage in the research, development, manufacturing and sale of UBT products for diagnosis of *H. pylori* infection. As of the Latest Practicable Date, we were also the only company in China with the capability of manufacturing all of carbon-13 UBT kits, carbon-14 UBT kits and UBT analyzers, according to Frost & Sullivan. As of the Latest Practicable Date, we had the most patents in connection with UBT products in China according to Frost & Sullivan. During the Track Record Period, in addition to domestic sales, we also sold our UBT products to more than 30 overseas jurisdictions.

The following table sets forth the details of our major UBT kits and analyzers:

 Product
 Diagnostic area
 Shelf-life of kit/recommended service life of analyzer

 Carbon-14 UBT kit (尿素[14C]呼氣試験藥盒)
 H. pylori
 12 months

Product	Diagnostic area	Shelf-life of kit/ recommended service life of analyzer
Carbon-13 capsule UBT kit (尿素[ <sup>13</sup> C]膠囊呼氣試驗藥盒)	H. pylori	24 months
Carbon-14 helicobacter pylori analyzer with card (卡式14C幽門螺杆菌測試儀)	H. pylori	8 years
Carbon-14 helicobacter pylori analyzer with liquid scintillation (液閃14C幽門螺杆菌測試儀)	H. pylori	10 years
Carbon-13 breath analyzer with infra-red spectrophotometer (紅外 <sup>13</sup> C呼氣試驗測試儀)	H. pylori	10 years

# Carbon-14 UBT Kit (尿素 [14C] 呼氣試驗藥盒)

We received approval from the CFDA to launch carbon-14 UBT kit in January 2000. Compared with carbon-13 capsule UBT kit, carbon-14 UBT kit is relatively easier to handle for testing and breath collection. Revenue generated from carbon-14 UBT kit was RMB519.2 million, RMB629.1 million and RMB819.5 million, in 2015, 2016 and 2017, representing 67.3%, 68.4% and 72.9%, respectively, of our revenue of UBT diagnostic kits and analyzers in the same periods.

# Carbon-13 capsule UBT kit (尿素 [13C] 膠囊呼氣試驗藥盒)

We received CFDA approval to launch carbon-13 UBT kit in 2005. Carbon-13 is not radioactive. Revenue from our carbon-13 capsule UBT kit was RMB228.7 million, RMB258.4 million and RMB273.7 million, respectively, in 2015, 2016 and 2017, representing 29.6%, 28.1% and 24.4%, respectively, of our revenue of UBT diagnostic kits and analyzers in the same periods.

Carbon-14 helicobacter pylori analyzer (14C幽門螺旋杆菌測試儀)

We received CFDA approval to launch carbon-14 helicobacter pylori analyzer in June 2002. Carbon-14 helicobacter pylori analyzer is used together with carbon-14 UBT Kit for the diagnosis of *H. pylori* infection in the stomach. We have two main types of carbon-14 analyzer, namely carbon-14 helicobacter pylori analyzer with card and carbon-14 helicobacter pylori analyzer with liquid scintillation.

Revenue from our carbon-14 helicobacter pylori analyzer was RMB15.1 million, RMB25.8 million and RMB23.9 million, respectively, in 2015, 2016 and 2017, representing 2.0%, 2.8% and 2.1%, respectively, of our revenue of UBT diagnostic kits and analyzers in the same periods.

Carbon-13 breath analyzer with infra-red spectrophotometer (紅外13C呼氣試驗測試儀)

We received CFDA approval to launch carbon-13 breath analyzer with infra-red spectrophotometer in August 2010. Carbon-13 breath analyzers with infra-red spectrophotometer is used together with carbon-13 UBT Kit for diagnosis of infection of H. pylori in the stomach.

Revenue from our carbon-13 breath analyzers with infra-red spectrophotometer was RMB8.6 million, RMB6.4 million and RMB6.6 million, respectively, in 2015, 2016 and 2017, representing 1.1%, 0.7% and 0.6%, respectively, of our revenue of UBT diagnostic kits and analyzers in the same periods.

#### In vitro immunoassay diagnostic reagents and kits

In vitro immunoassay diagnostic reagents are mainly measured through the binding reaction of antigen and antibody. It is used to evaluate the physiological state of the human body by determining the nature and quantity of the substances in the body through in vitro reaction. According to Frost & Sullivan, we are one of the earliest manufacturers specializing in the research, development, manufacturing and sales of RIA kits in China. In 2017, we were the largest manufacturer of RIA kits, in terms of revenue, in China, accounting for 35.0% of market share, according to Frost & Sullivan.

Since 1985, we have successfully expanded the types of in vitro immunoassay diagnostic reagents and kits to various immunoassay diagnosis areas covering RIA, EIA, CLIA, TRFIA and colloidal gold reagents. Our in vitro immunoassay diagnostic reagents and kits could be used in the in vitro immunoassay tests relating to thyroid function, gonads, oncology, cardiovascular, renal, endocrine, diabetes, gastrointestinal disease, bone metabolism, hepatitis, viruses, cytokines and hypertension factors.

The following table sets forth the details of the product portfolio of our major in vitro immunoassay diagnostic reagents and kits:

Products



Hepatitis, Thyroid function, gonads, oncology, cardiovascular, renal, endocrine, diabetes, gastrointestinal disease and bone metabolism

Diagnosis areas

Shelf-Life
1 month

Products	Diagnosis areas	Shelf-Life
EIA reagents (酶聯免疫診斷試劑)	Infectious diseases, Hepatitis, thyroid function, oncology, diabetes, virus and bacteria	12 months
CLIA reagents (化學發光免疫診斷試劑)	Infectious diseases, Hepatitis, thyroid function, gonads, oncology and diabetes	12 months
TRFIA reagents (時間分辨免疫診斷試劑)	Hepatitis, thyroid function, gonads, oncology and diabetes	12 months
Colloidal gold reagents (膠體金免疫診斷試劑)	Hepatitis and oncology	18 months

Revenue from our RIA kits was RMB89.0 million, RMB93.0 million and RMB88.1 million, respectively, in 2015, 2016 and 2017, representing 68.3%, 67.0% and 74.2%, respectively, of our revenue of in vitro immunoassay diagnostic reagents and kits in the same periods. Revenue from our other in vitro immunoassay diagnostic reagents was RMB41.2 million, RMB45.8 million and RMB30.7 million, respectively, in 2015, 2016 and 2017, representing 31.7%, 33.0% and 25.8%, respectively, of our revenue of in vitro immunoassay diagnostic reagents and kits in the same periods.

#### Sales and Customers of Pharmaceuticals

We have established a nationwide sales network of our pharmaceutical products in China. As of December 31, 2017, our sales network, comprising of our own sales force, promoters and distributors, covered 31 provinces, municipalities and autonomous regions in China. In addition, we have an extensive end-user base. As of December 31, 2017, our sales network covered more than 10,000 hospitals and other medical institutions, including over 1,400 Class III hospitals, 4,500 Class II hospitals and 4,300 Class I hospitals in China.

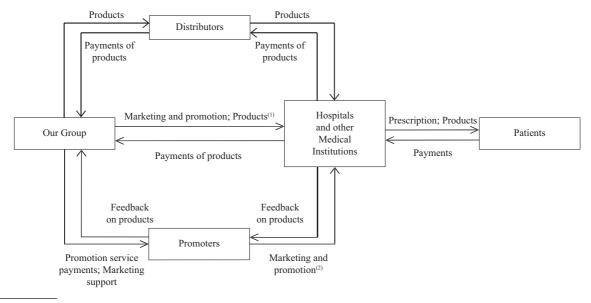
Our sales network covers capital cities of each of provinces, autonomous regions and municipalities and most of prefectural-level cities in the PRC. The following map illustrates the major cities covered by our sales network:



We adopt three major sales models with respect to our pharmaceuticals segment, namely: (i) direct sales through our own sales force; (ii) direct sales through marketing and promotion service by promoters; and (iii) distributorship. Our pharmaceuticals revenue generated from direct sales through own sales force was RMB746.1 million, RMB761.2 million and RMB828.2 million for the years ended December 31, 2015, 2016 and 2017, respectively, accounting for 42.1%, 38.6% and 36.7% of our segment revenue during the same periods. Our pharmaceuticals revenue generated through direct sales with marketing and promotion service by promoters was RMB960.6 million, RMB1,121.9 million and RMB1,322.7 million for the years ended December 31, 2015, 2016 and 2017, respectively, accounting for 54.2%, 56.9% and 58.7% of our segment revenue during the same periods. Our pharmaceuticals revenue generated through distributors was RMB60.8 million, RMB80.7 million and RMB88.1 million for the years ended December 31, 2015, 2016 and 2017, respectively, accounting for 3.4%, 4.1% and 3.9% of our segment revenue for the same periods. In addition, we generated revenue from overseas sales of RMB6.3 million, RMB7.2 million and RMB14.7 million, which accounting for 0.3%, 0.4% and 0.7% of our pharmaceuticals revenue for the years ended December 31, 2015, 2016 and 2017, respectively.

# Imaging diagnostic and therapeutic radiopharmaceuticals

We primarily sell our imaging diagnostic and therapeutic radiopharmaceuticals directly to hospitals and other medical institutions through our own sales force in China. To a lesser extent, we sell a small volume of sodium iodine-131 oral solution to distributors for their further distribution and sale to hospitals and other medical institutions. We engage promoters (技術服務推廣商) to market and promote sales of iodine-125 sealed source and strontium-89 chloride injection to hospitals and other medical institutions in China. The following diagram illustrates the general sales model of our imaging diagnostic and therapeutic radiopharmaceuticals:



Notes:

- (1) We primarily sell and deliver our imaging diagnostic and therapeutic radiopharmaceuticals to hospitals and other medical institutions directly. We sell imaging diagnostic and therapeutic radiopharmaceuticals (other than iodine-125 sealed source, the majority of strontium-89 chloride injection and a small volume of sodium iodine-131 oral solution) through the marketing and promotion effort of our own sales force.
- (2) We sell iodine-125 sealed source and the majority of strontium-89 chloride injection through the marketing and promotion service by promoters.

The following is a breakdown of our revenue of imaging diagnostic and therapeutic radiopharmaceuticals by different sale channels for the periods indicated:

	Year ended December 31,						
	201	5	2016		201	17	
	Amount	%	Amount	%	Amount	%	
	(F	RMB in 1	nillions, ex	cept in p	ercentage)		
PRC market							
Direct sales through our own sales force	626.2	71.8	633.8	69.4	721.3	71.3	
Direct sales through marketing and promotion service by promoters (iodine-125							
sealed source and the majority of strontium-89 chloride injection)	233.5	26.8	267.2	29.3	280.2	27.7	
Distributors	12.0	1.4	11.8	1.3	9.7	1.0	
Subtotal	871.7	100.0	912.8	100.0	1,011.3	100.0	
Overseas market	0.2	_	_	_	_	_	
Total	871.9	100.0	912.8	100.0	1,011.3	100.0	

Direct sales through our own sales force

We primarily sell our imaging diagnostic and therapeutic radiopharmaceuticals other than iodine-125 sealed source, the majority of strontium-89 chloride injection and a small volume of sodium

iodine-131 oral solution through our own sales force. Our customers are mainly public hospitals and medical institutions in China. The imaging diagnostic and therapeutic radiopharmaceuticals sold through our own sales force are primarily fluorine-18-FDG injection, molybdenum-99/technetium-99m generator, technetium-99m labeled injection and sodium iodine-131 oral solution. Owing to the short half-life of the radioisotopes in such radiopharmaceuticals, we typically market and sell these products to hospital and medical institution customers located in close proximity to our production facilities. Our customers only order our products when it is required for the diagnosis and treatment of their patients. We arrange production and delivery of the products to our customers upon notification. We generally enter into sales agreements with customers with respect to the sale of such products. The sales agreements are typically in simplified form and normally include the terms relating to product type, unit price, quantity and payment schedule.

Direct sales with the marketing and promotion service by promoters

We primarily sell iodine-125 sealed source and the majority of strontium-89 chloride injections through the promotion and marketing effort of promoters. We generally enter into one-year technical service and promotion agreements (技術服務推廣協議) with promoters. Each promoter provides marketing and promotion services for designated hospitals and medical institutions which purchase iodine-125 sealed source and strontium-89 chloride injections directly from us. As the direct sales of imagining diagnostic and therapeutic radiopharmaceuticals through our own sales force, we generally enter into framework sales agreements with hospital and medical institution customers with respect to iodine-125 sealed source and strontium-89 chloride injections. Certain details of sales of iodine-125 sealed source and strontium-89 chloride injections are summarized as following:

- Order: Our customers typically notify the promoters when patients need the products and our promoters, in turn, provide us with written orders specifying the product name, specification and quantity.
  - Delivery: Iodine-125 sealed source: We have adopted a set of enhanced internal control measures relating to sales of iodine-125 sealed source: (a) we implement an electronic order and delivery certification management system to streamline and enhance the order and delivery process; (b) we require each hospital customer to provide a written record with the hospital's official seal specifying the receiving address of the hospital and the names and the contact number of the dedicated staff of the hospital responsible for picking up the products before we start to deliver the ordered products. Such information shall be entered, in advance, into the aforementioned electronic order and delivery certification management system; (c) we arrange third party courier service provider to directly deliver the products to the registered address provided by the hospitals. We require the dedicated staff of the hospital responsible for picking up the products to use the mobile phone with the registered contacting number to scan the QR code on the package when picking up the products. Only using that very mobile phone with the registered contacting number to complete the scanning process could our electronic order and delivery certification management system confirm the receipt of the products by the hospital; (d) we review the details of the order records sent by the promoters on behalf of the hospital customers at least every two months with the promoters to ensure the volume of products delivered by us to the hospitals conform to the amounts ordered by the hospitals; and (e) at the end of each year, we conduct reconciliation check of the delivery amount against

the inventory and used amount of the hospital and reconciliation check of the trade receivables on our records against the trade payables on the record of the customers.

Strontium-89 chloride injections: we will arrange production and delivery of strontium-89 chloride injections to the place designated by the customers upon notification. Promoters generally pick up strontium-89 chloride injections on behalf of our customers and, in turn, deliver the products immediately to hospitals and medical institutions.

- Invoice: We typically issue the invoices to the hospital and medical institution customers based on the actual amounts of iodine-125 sealed source and strontium-89 chloride injections used based on verbal or written notifications within a certain period of time (such as every month or a longer period of time) as agreed between the particular customer and us. Accordingly, we recognize revenue of sales of iodine-125 sealed source and strontium-89 chloride injections based on the actual amount of products used by the customers. As of December 31, 2015, 2016 and 2017 iodine-125 sealed sources delivered but unbilled amounted to approximately RMB19.0 million, RMB13.7 million and nil, respectively. As of December 31, 2015, 2016 and 2017, strontium-89 chloride injections delivered but unbilled amounted to approximately RMB1.1 million, RMB1.0 million and nil, respectively.
- Payment: The hospital and medical institution customers settle the accounts with us relating to the invoiced amount in a relatively long recovery period with a range from more than 200 days to exceeding one year.

Iodine-125 and strontium-89 have relatively longer half-lives than the radioisotopes in our other major imagining diagnostic and therapeutic radiopharmaceuticals, which allows us to reach customers nationwide through the marketing and promotion service of our promoters located in the designated areas. The relationship between our promoters and us is not that of seller and buyer. Our customers are hospitals and other medical institutions. Our promoters provide marketing and promotion service to hospitals and other medical institutions with respect to our products.

#### Management of promoters

We engage promoters to reach hospital and medical institution customers in a particular geographical area in China because they are able to offer quality and timely technical and after-sales services to customers with in-depth industry and market intelligence in the local market. Meanwhile, we provide technical training to our promoters to ensure that our local customers receive quality and timely technical and aftersales services. According to Frost & Sullivan, it is an industry norm to engage promoters in connection with the marketing and promotion of iodine-125 sealed source and strontium-89 chloride injections in China.

We select our promoters based on their qualifications, reputation, industry experience, creditworthiness and promotion capabilities. We also conduct on-site inspection of the workplace of potential promoters. A promoter must maintain its business license and other relevant licenses and permits under the PRC laws and possess adequate expertise with respect to imaging diagnostic and therapeutic radiopharmaceuticals. It should maintain decent hospital or medical institution coverage in the target areas in China.

To monitor the qualification of our promoters, each of our promoters is required to provide us with copies of its currently-valid business licenses and other relevant licenses and permits for our record. We also communicate with physicians in the particular hospitals or the professionals in the relevant medical institutions to obtain feedback on the services provided by our promoters.

We review the performance of our promoters on a regular basis with reference to factors such as the purchase amount of our products from the designated hospitals and other medical institutions and the ability of such promoters to procure timely payment from the relevant customers. Based on our review, we may elect to continue or discontinue our cooperation with or to adjust the scope of customer coverage for any promoters.

The following table sets forth the movement of the number of our promoters for iodine-125 sealed source in China during the periods indicated:

	Year en	nber 31,	
	2015	2016	2017
As of the beginning of the period	52	61	65
Additions of promoters	19	10	5
Termination of promoters	10	6	18
As of the end of the period	61	65	52

We discontinued our relationships with 10 promoters in 2015, six promoters in 2016 and 18 promoter in 2017 mainly because: (i) some promoters ceased to operate due to their own business reasons; (ii) the relevant hospitals or medical institutions designated to the particular promoters failed to renew necessary qualifications or licenses to continue to use imaging diagnostic and therapeutic radiopharmaceuticals under the PRC laws and regulations, which resulted in the cessation of their business; or (iii) certain promoters failed to perform the terms of the technical service and promoter agreements to our satisfaction. In 2015, 2016 and 2017, the revenue generated from the ten, six and 18 terminated promoters of iodine-125 sealed source were nil, nil and RMB45.2 million, respectively, in their respective year of termination.

In 2014, there was an incident that an employee of a promoter convicted of criminal offense for falsifying orders of iodine-125 sealed sources from the relevant hospital customer. Such employee claimed to throw away the iodine-125 sealed sources relating to the falsified orders. According to the relevant authorities, the whereabouts of such missing iodine-125 sealed source is unknown. We did not timely identify the loss of such iodine-125 sealed sources in such incident because (i) the relevant hospital served by such promoter continuously ordered products and made payments to the Company with a relatively long settlement cycle in excess of one year; and (ii) in the past, we did not regularly conduct reconciliation check of the delivery amount against the ordered amount on the record of the promoters. We also did not regularly conduct the reconciliation check of the delivery amount on our record against the inventory and used amount on the record of the particular hospital, or our trade receivables against the trade payables on the record of such hospital.

In 2017, we found an incident that a promoter improperly transferred certain iodine-125 sealed sources from our customer to other hospitals. During the Track Record Period, the revenue generated from the sales contributed by such promoter was RMB50.1 million, RMB58.3 million and RMB41.4 million, respectively, accounting for 2.8%, 3.0% and 1.8% of our pharmaceuticals revenue during the same periods. In December 2017, we ceased business relationship with such promoter.

The following table sets forth the movement of the number of promoters for our strontium-89 chloride injections in China during the periods indicated:

	Year end	Year ended December 3				
	2015	2016	2017			
As of the beginning of the period	22	22	28			
Additions of new promoters	4	11	4			
Termination of promoters	4	5	12			
As of the end of the period	22	28	20			

The number of promoters of strontium-89 chloride injections remained relatively stable during the Track Record Period. We discontinued our relationships with four promoters in 2015, five promoters in 2016 and 12 promoters in 2017 mainly because some promoters ceased business due to their own business reasons or because their performance failed to meet our assessment requirements. In 2015, 2016 and 2017, the revenue generated from terminated promoters of strontium-89 chloride injection were RMB0.4 million, RMB0.5 million and RMB1.0 million, respectively.

During the Track Record Period, we had four promoters of iodine-125 sealed source and strontium-89 chloride injection which were controlled or associated with our current employees. The revenue generated from these promoters accounted for 0.5%, 0.3% and 0.1% of our total revenue for the years ended December 31, 2015, 2016 and 2017. The terms of the technical service and promotion agreements with these promoters are no more favorable than the terms offered to other promoters. We have adopted a comprehensive sales management system which provides that the employees who are interested parties are prohibited dealing with our customers. We have terminated the relationship with these promoters at the end of June 2017.

# Salient terms of the technical service and promotion agreement with promoters

We usually enter into standard technical service and promotion agreements with promoters. The following is a summary of the general salient terms of our standard technical service and promotion agreement:

- Duration: our technical service and promotion agreements generally have a term of one year.
- Designated promotion territory/hospitals: each of our promoters is only authorized to promote our products within a defined geographical area or to designated hospitals or other medical institutions as part of our strategy to coordinate our marketing efforts. Each designated hospital or medical institution is serviced by a particular promoter in order to avoid competition among different promoters.
- Minimum purchase requirement:
  - a. Iodine-125 sealed source: we do not set any minimum amount of purchases of Iodine-125 sealed source required for hospitals and other medical institutions serviced by a particular promoter.
  - b. Strontium-89 chloride injection: we set the bi-monthly and yearly minimum amount of purchases of strontium-89 chloride injections by hospitals and other medical institutions serviced by a particular promoter. If such hospitals or medical institutions fail to meet the bi-monthly purchase amount requirement, the relevant promoter is required to compensate us for our cost of raw materials as prescribed in the

agreement. If such hospitals or medical institutions fail to meet the yearly purchase amount requirement, we are entitled to terminate the agreement.

# Pricing:

- a. Iodine-125 sealed source: we generally set a minimum unit price of iodine-125 sealed source at which it is being offered by our promoters to the customers. We determine the minimum unit price with reference to our cost of sales and profit margin. The actual unit price reached between the promoters and the customers is normally higher than the minimum unit price. Our customers pay the actual purchase price to us directly and we then pay the promoters a service fee equal to the actual purchase price less the sum of the minimum unit price and related taxes as the consideration for the promotion and marketing service provided by the promoters.
- b. Strontium-89 chloride injection: we generally set a fixed rate of service fee payable to promoters for each strontium-89 chloride injection sold to customers. The amount of the service fee is based on the promotion of the products (e.g., organization of seminars, and training of clinical application), transportation of the products and collection and maintaining of empty containers, and other expenses of the promoters.
- Bona fide deposit: promoters of strontium-89 chloride injections are required to pay us a deposit of RMB100,000 upon the execution of the agreement.
- Prepayment, payment and credit terms:
  - a. Iodine-125 sealed source: We generally require our promoters to procure the customers to make payments to us. The hospital and medical institution customers settle the accounts with us relating to the invoiced amount in a relatively long recovery period with a range from more than 200 days to exceeding one year. After the receipt of payment from customers, we settle the promoter service fee with promoters. Our sales are generally settled through bank transfer.
  - b. Strontium-89 chloride injection: we require the customers of strontium-89 chloride injections to pay us directly. The promoters are not allowed to receive the payment from the customers on behalf of us. The hospital and medical institution customers settle the accounts with us relating to the invoiced amount in a relatively long recovery period with a range from more than 200 days to exceeding one year. We settle the promoter service fee with promoters of strontium-89 chloride injection based on the payment we received from the customers.

See "Financial Information — Trade and Other Payables" for details of payables to the promoters during the Track Record Period.

- Collection of receivables: promoters are responsible to procure the customers to make payment to us within the credit terms. If the customers fail to make the payment to us within the prescribed credit terms, we have the right to deduct a fixed sum from the service fee payable to the promoters as late payment fee.
- Delivery: promoters order products from us on behalf of a customer upon instruction from
  the customer. For iodine-125 sealed sources, we will arrange the delivery of the products
  directly to the customers. For strontium-89 chloride injections, we will arrange production
  and delivery of products to the place designated by the customers upon notification. Our
  promoters generally pick up strontium-89 chloride injections on behalf of the hospital and

other medical institution customers and, in turn, deliver the products immediately to the hospitals and other medical institutions. We bear the costs and risks of loss of transporting our products to the designated location.

- Exclusivity: promoters are prohibited to market to the designated customers any products manufactured or sold by other manufacturers. Otherwise, we have the right to terminate the agreement unilaterally and claim damages from the promoters. We are not allowed to appoint other promoters for the hospitals and medical institutions once the relevant promoters have been designated.
- Access to information: our promoters are required to provide us with market updates and their forecast analysis and work plan for promotion activities such as through academic or industry conferences from time to time. Our promoters are also required to establish and keep customer profile with necessary basic information.
- Marketing and promotion services: our promoters are responsible for handling all bidding
  processes if so required by the relevant customers. Our promoters are also responsible for
  the preparation of marketing materials, training guidelines and clinical application
  handbook and the organization of academic conference, introduction of relevant
  radiopharmaceuticals and clinical trainings.
- Exchange policy: our promoters may assist customers with the exchange or return of any defective products to us.
- Termination: either party has the right to terminate the agreement with a prior notice upon mutual agreement. If our promoters of strontium-89 chloride injections breach the exclusivity covenants, we are entitled to terminate the agreements unilaterally, claim damages, and forfeit the bona fide deposit.
- Regulatory compliance: our promoters are required to comply with all applicable PRC laws and regulations in respect of the relevant radiopharmaceuticals.

During the Track Record Period, there were no returns, replacements or quality complaints with respect to our imaging diagnostic and therapeutic radiopharmaceuticals that materially and adversely affected our business, reputation and results of operations.

As noted above, our technical service and promotion agreements typically designate the geographical area or specific hospitals or medical institutions for which the promoters are responsible. As such, promoters may not offer the relevant products to customers other than their respective designated hospitals or medical institutions to better coordinate our marketing efforts. We usually require our promoters to provide market update report for our review, which allows us to monitor their performance. As such, our Directors are of the view that the cannibalization risk among our promoters is very remote.

We also believe there is no channel stuffing risk because our promoters do not maintain any inventory of our products.

# Distribution

During the Track Record Period and up to the Latest Practicable Date, we engaged Shanghai GMS Pharmaceutical and its subsidiary as our exclusive distributors of sodium iodine-131 oral solution in the relevant designated areas in China. We sell our products to Shanghai GMS

Pharmaceutical and its subsidiary which, in turn, on-sell our products to hospitals and other medical institutions. The relationship between such distributors and us are that of seller and buyer. We entered into sales agreements with Shanghai GMS Pharmaceutical and its subsidiary with respect to the distribution of our sodium iodine-131 oral solution. The salient terms of the sales agreements are as follows:

- Duration: the sales agreements with Shanghai GMS Pharmaceutical and its subsidiary expire at June 30, 2018 and June 2020, respectively. As of the Latest Practicable Date, we expected to renew the sales agreement with Shanghai GMS Pharmaceutical upon its expiry.
- Designated sales area: the distributors are only authorized to sell our products within a designated geographical area. Distributors are forbidden to sell our products outside its designated area.
- Minimum purchase requirement: the distributors are required to purchase a minimum amount of our product.
- Pricing: the sales agreement provides for the unit price of the product.
- Payment and credit terms: the distributors are required to make the payment to us within three months upon receipt the invoice.
- Product return: we do not accept return of products unless there is a quality issue. During
  the Track Record Period, there were no returns, replacements or quality complaints
  incidents from our distributors that would materially and adversely affect our business,
  reputation and results of operations.
- Inventory: the distributors do not maintain inventory of our products due to the relatively short shelf life of our products. Distributors typically order our products once they receive demand notice from hospitals and other medical institutions. Therefore, we believe there is no channel stuffing risk.
- Exclusivity: we are not allowed to appoint other distributors in the designated areas. Distributors are not allowed to purchase the same products of other manufacturers.
- Termination: we have the right to terminate the agreement if the distributors purchase the same product from other manufacturers.

### Overseas sales

During the Track Record Period, we sold our imaging diagnostic and therapeutic radiopharmaceuticals, such as sodium iodine-131 oral solution, to customers in Mongolia in 2015. For the years ended December 31, 2015, 2016 and 2017, our overseas sales were insignificant and amounted to RMB0.2 million, nil and nil, respectively.

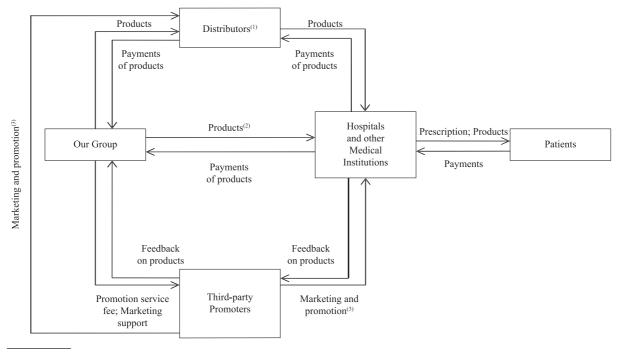
### UBT kits and analyzers

We adopted the following sales models for the sale of our UBT kits and analyzers:

• UBT kits: we primarily sell our carbon-13 capsule UBT kits and carbon-14 UBT kits to hospitals and other medical institutions serviced by promoters complemented by the sale of our carbon-13 capsule UBT kits to qualified pharmaceuticals distribution companies in China which in turn on-sell our products to the end-users.

UBT analyzers: we primarily sell our UBT analyzers to qualified distributors in China
who, in turn, either on-sell to the customers or sell to sub-distributors for further
distribution and sales.

We rely on the marketing and promotion service by promoters (代理服務商) to increase the sales of UBT products to existing and new medical institution and distributor customers. We do not maintain our own sales force to market UBT products. The following diagram illustrates the general sales model of our UBT kits and analyzers:



Notes:

- (1) We sell and deliver a small volume of carbon-13 capsule UBT kits and all UBT analyzers to qualified distributors for sale to end customers or further distribution.
- (2) We directly sell and deliver carbon-14 UBT kits and the majority of carbon-13 capsule UBT kits to hospitals and other medical institutions.
- (3) We sell all of our UBT products through the marketing and promotion service by promoters.

As of the Latest Practicable Date, our sales network of UBT products comprises of promoters and distributors covering 31 provinces, autonomous regions and municipalities in China. The following is a breakdown of our UBT products revenue by sales channel for the periods indicated:

	Year ended December 31,						
	201	5	2016		201	7	
	Amount	%	Amount	%	Amount	%	
	(F	RMB in 1	millions, exc	cept in p	ercentage)		
PRC market							
UBT kits							
Direct sales through promoters	727.1	94.2	854.7	93.0	1,042.5	92.8	
Distribution	18.8	2.4	30.7	3.3	40.6	3.6	
UBT analyzers							
Distribution	23.2	3.0	31.1	3.4	30.5	2.7	
Subtotal	769.1	99.7	916.5	99.7	1,113.6	99.1	
Overseas market	2.5	0.3	3.0	0.3	10.1	0.9	
Total	771.5	100.0	919.5	100.0	1,123.7	100.0	

Direct sales of UBT kits through the promotion service of promoters

We primarily sell UBT kits directly to the customers through the promotion and marketing effort of promoters. We generally enter into one-year service agreement (代理服務合同) with our promoters governing the promotion and marketing arrangements. Promoters order products from us on behalf the hospitals and medical institutions. We will arrange delivery of UBT kits to the predetermined destinations and the promoters will pick up and deliver the products to hospitals and medical institutions. We typically issue the invoices to the hospital and medical institution customers for each batch of products delivered to them.

# Management of the promoters

According to Frost & Sullivan, it is an industry norm to engage promoters for the marketing and promotion of UBT kits in China. As of December 31, 2017, we had 85 promoters, of which 57 were controlled by our 28 former employees and the remaining 28 promoters were Independent Third Parties. Majority of our former employees established more than one corporate entity as promoters. We selected our promoters based on a few factors, in particular, their ability to promote our products with an in-depth understanding and, in turn, successfully increase the sale of our products by leveraging their industry expertise and promotion capabilities.

We conduct on-site inspection of the workplace of, and communicate regularly with our promoters. To ensure our promoters are qualified, each of our promoters is required to provide us with copies of its currently-valid business license and other permits for our record. We also communicate with the particular hospitals or medical institutions to obtain their feedback on the services provided by the promoters.

We review the performance of our promoters on a regular basis with reference to factors such as the purchase amount of our products by the designated hospitals and medical institutions. Based on our review, we may elect to continue our cooperation with out-performers, adjust the assigned scope of customers, and choose not to renew the agreements with those promoters who fail to meet our performance criteria.

We entered into standard service agreements with our promoters. The following table sets forth the movement of the number of our promoters in the PRC during the periods indicated:

	Year en	nber 31,	
	2015	2016	2017
As of the beginning of the period	72	73	90
Additions of promoters	18	28	41
Termination of promoters	17	11	46
As of the end of the period	73	90	85

We discontinued our relationships with 17 promoters in 2015, 11 promoters in 2016 and 46 promoters in 2017 mainly because: (i) some promoters ceased to operate due to their own business reasons; or (ii) certain promoters failed to perform the terms of the technical service and promoter agreements to our satisfaction. In 2015, 2016 and 2017, the revenue generated from terminated promoters of UBT kits were RMB324.7 million, RMB56.9 million and RMB630.8 million, respectively.

As of the Latest Practicable Date, there were four promoters established by our former employees using our brand name "海得威" as part of the trade names of their respective corporate

entities in the promotion and marketing of our UBT products. Although we have not entered into any written agreements relating to the use of brand name "海得威" with such promoters, we have adopted a comprehensive sales management system with respect to the use of our brand, logo and name by these promoters. Promoters who use our logo must limit its usage to the promotion of our UBT products. As of the Latest Practicable Date, all of our promoters for UBT kits issued written undertakings to us that they have not applied for the trade mark in the name of our Group and agree to indemnify us for all losses incurred due to their business operation. During the Track Record Period and up to the Latest Practicable Date, we were not aware of any existing or potential abuse or improper use of our brand name by our promoters. Furthermore, all our promoters for UBT kits have entered into incorruption agreement (廉潔協議書), pursuant to which such promoters agreed not to bribe our employees with gifts, travel sponsorship, luxury accommodation or otherwise obtain favorable treatment in any form. We do not require our promoters of other products to issue the undertakings with respect to use of our brand, logo or name, or to enter into probity agreements with us. However, our promoters of other products are required to comply with all applicable PRC laws and regulations in respect of radiopharmaceuticals. We also maintain a comprehensive set of promoters management procedures and rules to ensure on-going compliance of promoters with the applicable anti-corruption laws in the PRC. See "Business — Internal Control and Risk Management Measures — Anti-corruption Compliance Measures" for further details.

# — Salient terms of the service agreement with our promoters

We usually enter into standard service agreements with promoters for our UBT kits. The following is a summary of the general salient terms of such standard service agreements:

- Duration: our technical service and promotion agreements generally have a term of one year.
- Designated promotion territory/hospitals: each of our promoters is only authorized to sell our products within a defined geographical area or designated hospitals or medical institutions so as to avoid competition among different promoters.
- Minimum purchase requirement: we have the right to terminate the authorization of promotion service in a particular geographical area granted to the particular promoter if the sales amount of our products in such geographical area fails to reach our prescribed target.
- Pricing: we generally set a minimum unit price of UBT kits at which they are being offered to customers, based on our cost of sales and profit margin. The actual unit price reached between promoters and customers is normally higher than the minimum unit price. Customers pay the actual unit price to us directly. We then pay the promoters a service fee after deducting the minimum unit price and related tax and fees as the consideration for the promotion and marketing effort provided by the promoters.
- Payment and credit terms: we generally settle payment with our promoters every three months.
- Deposit: our promoters are required to pay a fixed sum deposit per kit before we deliver products to the customers. Such deposit will be refunded when the customer pays the price in full to us.

- Collection of receivables: our promoters are obligated to procure timely payment from customers and are responsible for the payment if the end customers fail to pay within a prescribed period of time.
- Delivery: we bear the costs and risks of loss of transporting our products to the location of customers.
- Exclusivity: promoters are prohibited to market to the designated customers the products manufactured or sold by other manufacturers. Otherwise, we have the right to terminate the agreement unilaterally and claim damages from the promoters.
- Exchange policy: our customers are allowed to exchange or return defective products to us.
- Termination and renewal: we have the right to terminate the agreement unilaterally if the designated customers fail to purchase a specified amount of our products. Promoters have the preemptive right to renew the service agreement upon expiry of the existing agreement.

Our service agreements designate the promotion area and we designate specific medical institutions for the promoters. We also have a comprehensive sales management system which sets out the penalty provisions if a promoter violates the such restrictions. As such, we believe the cannibalization risk to be very remote.

In addition, we have adopted a strict product exchange and return policy. During the Track Record Period and up to the Latest Practicable Date, we had not experienced any product return or made any product recalls due to quality defects of our UBT kits. We also believe there is no channel stuffing risk because we sell and deliver the products directly to our hospital and medical institution customers. Our promoters do not have control of our products in the sales process and maintain no inventory of our products.

#### Distribution of UBT kits and analyzers

We sell a small volume of our carbon-13 capsule UBT kits and all of our UBT analyzers to qualified distributors who, in turn, on-sell our products to end customers or to sub-distributors for further distribution. The relationship between the distributors and us are that of seller and buyer. We had 158, 211 and 174 distributors for our UBT products as of December 31, 2015, 2016 and 2017, respectively.

#### Distributor management

We rely on our promoters to engage new distributor customers. We select our distributors and review their performance based on the requirements and standards similar to those that we adopt for the selection and assessment of our promoters of UBT kits as disclosed above.

The following table sets forth the movement of the number of our distributors of our UBT products in the PRC during the periods indicated:

	Year en	nber 31,	
	2015	2016	2017
As of the beginning of the period	111	158	211
Additions of distributors	52	63	41
Termination of distributors	5	10	78
As of the end of the period	158	211	174

We discontinued our relationships with five, ten and 78 distributors in 2015, 2016 and 2017, respectively, which did not maintain a satisfactory scale of operations or failed to perform the terms of distribution agreements to our satisfaction. In each of 2015, 2016 and 2017, the revenue generated from terminated distributors of UBT products were nil, nil and RMB2.0 million respectively.

# Salient terms of distribution agreements

We typically enter into short form sales agreements with distributors specifying the product type, unit price, quantity, delivery place, payment schedule, term, etc.

Our distributors are prohibited from selling the relevant products outside the respective geographic areas designated to the relevant promoters, without our prior written consent. As such, we believe the cannibalization risk is not material.

Taking into consideration the supply and demand dynamics of the PRC UBT market, we believe it is unlikely for our distributors to accumulate unreasonable level of inventory during the Track Record Period and up to the Latest Practicable Date. As such, we believe the channel stuffing risk is not material. In addition, we adopt a strict product exchange and return policy. During the Track Record Period and up to the Latest Practicable Date, we had not experienced any product return or made any product recalls due to any quality defects in respect of our UBT products sold through distributors.

During the Track Record Period, we had two promoters of UBT kits and two distributors of UBT analyzers which were controlled or associated with our three current employees. The revenue generated from these promoters and distributors accounted for 0.2%, 0.2% and 0.04% of our total revenue for the years ended December 31, 2015, 2016 and 2017. The terms of the agreements with these promoters and distributors are no more favorable than the terms offered to others. As required by our comprehensive sales management system, the employees who are interested parties are prohibited dealing with our customers. We have terminated the relationship with these promoters and distributors at the end of June 2017.

#### Overseas sales

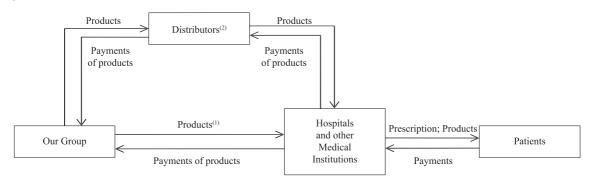
Our sales of UBT products outside the PRC are made through PRC trading companies or overseas distributors. We sell UBT kits and analyzers to (i) the PRC trading companies, which then on-sell our products to overseas customers, or (ii) foreign distributors, which then on-sell our products to their customers. All these trading companies and overseas distributors are Independent Third Parties. During the Track Record Period, we primarily sold our UBT kits and analyzers to customers in East Asia, Southeast Asia, Middle East and South America. For the years ended December 31, 2015 and 2016 and 2017, our overseas sales of UBT products were RMB2.5 million, RMB3.0 million and RMB10.1 million, respectively.

# In vitro immunoassay diagnostic reagents and kits

We adopted the following sales channels for the sale of our in vitro immunoassay diagnostic reagents and kits:

- RIA kits: we primarily sell our RIA kits to hospitals and other medical institutions directly through our own sales force.
- All other in vitro immunoassay diagnostic reagents: we primarily sell our in vitro immunoassay diagnostic reagents (other than RIA kits) to distributors who, in turn, on-sell to the customers, complemented by our direct sales to hospitals and other medical institutions through our own sales force.

The following diagram illustrates the sales model of our in vitro immunoassay diagnostic reagents and kits:



Notes:

- (1) Products marketed through our in-house sales force include RIA kits and part of other in vitro immunoassay diagnostic reagents.
- (2) Products marketed through distributors include the majority of other in vitro immunoassay diagnostic reagents.

The following is a breakdown of our revenue by sales channel for the periods indicated:

	Year ended December 31,							
	2015 2016		6	2017				
	Amount	%	Amount	%	Amount	%		
	(RMB in millions, except in percentage)							
PRC market								
Direct sales (RIA kits and part of other in vitro immunoassay diagnostic								
reagents)	119.9	92.1	127.4	91.8	106.9	90.0		
<b>Distribution</b> (Majority of other in vitro immunoassay diagnostic reagents)	6.7	5.2	7.2	5.2	7.3	6.1		
Overseas market	3.6	2.8	4.2	3.0	4.6	3.9		
Total	130.2	100.0	138.8	100.0	118.8	100.0		

### Direct sales

We primarily sell our RIA kits and part of other in vitro immunoassay diagnostic reagents directly to hospitals and other medical institutions in China. We generally enter into one-year sales agreements with our customers, which stipulate the product type, specifications, monthly quantity ordered, transportation methods, etc.

#### Distribution

We primarily sell our in vitro immunoassay diagnostic reagents other than RIA kits to thirdparty distributors which, in turn, on-sell our products to hospitals and other medical institutions in

China. Our relationship with these distributors is that of seller and buyer. As of December 31, 2017, our distribution network comprised 275 distributors for our in vitro immunoassay diagnostic reagents covering 27 provinces, autonomous regions and municipalities in China. According to Frost & Sullivan, our existing distribution model with respect to in vitro immunoassay diagnostic reagents and kits is consistent with customary industry practice.

# Distributor management

We select our distributors based on factors such as their qualifications, reputation, market coverage and distribution capabilities. To distribute our products, a distributor must maintain its business license and other relevant licenses and permits under the PRC laws. It should maintain satisfactory hospital or medical institution coverage in its designated geographic area in China.

To ensure our distributors are qualified, each of our distributors is required to provide us with copies of its currently-valid licenses, permits and certificates for our record.

We review the performance of our distributors on a regular basis and may elect to continue our cooperation with out-performers, adjust the assigned distribution regions, and choose not to renew the contracts of those distributors who fail to meet our performance criteria.

The following table sets forth the movement of the number of our distributors in the PRC during the periods indicated:

Year ended December			
2015	2016	2017	
281	231	312	
78	81	113	
128		150	
231	312	275	
	2015 281 78 128	2015         2016           281         231           78         81           128         —	

We discontinued our relationships with 128 distributors in 2015 and 150 distributors in 2017 which did not maintain a satisfactory scale of operations or procured sufficient sales from customers. We are not required to repurchase the unsold products from the relevant distributors upon termination of the distribution agreements. In 2015 and 2017, the revenue generated from terminated distributors of in vitro immunoassay diagnostic reagents were RMB0.8 million and RMB0.2 million, respectively. We believe that we should focus on maintaining distribution relationships with those that have a proven track record in the PRC in vitro immunoassay diagnostic reagents market and are considered to be leaders within their respective regions in the PRC. In addition, by strengthening and optimizing our distribution network, we reduce the need to allocate sales and marketing resources to deal with smaller distributors with insignificant and/or infrequent sales. All our distributors are Independent Third Parties.

# — Salient terms of our distribution agreements

We generally enter into distribution agreements with our distributors. The following is a summary of the general salient terms of our standard distribution agreements:

- Duration: our distribution agreements generally have a term of up to five years.
- Designated sales area: each of our distributors is only authorized to sell our products within a designated geographical area so as to avoid competition among different distributors. Our distributors are forbidden to sell our products outside its designated area.

- Minimum purchase requirement: we require distributors to purchase a minimum amount of products per year.
- Pricing: the agreement provides for the unit price of each product.
- Incentive scheme: we provide our distributors with in vitro diagnosis analyzers without cost if the distributors are able to meet a specified purchase amount of products. We also provide our distributors with a certain amount of in vitro immunoassay diagnostic reagents free of charge if the distributors purchase in vitro diagnosis analyzers from us and commit to a certain purchase amount of our in vitro immunoassay diagnostic reagents within the term of the distribution agreement.
- Payment and credit terms: we generally require our distributors to make payment prior to delivery of the products.
- Delivery: we are responsible for transporting our products to the location designated by our distributors.
- Return and replacement policy: our distributors are not allowed to return products to us
  other than products that do not conform to the quality standards under the applicable PRC
  regulations. Our distributors are entitled to inspect our products within ten working days
  upon delivery, and must notify us and obtain our written consent before products can be
  returned or exchanged. Our distributors may not return expired or unsold products.
- Termination: we have the right to discontinue our relationship with the distributor if it fails to meet the minimum purchase requirement.

# Manufacturing of pharmaceuticals

Our production process begins with the purchase of raw materials, packaging materials and other consumables. We perform quality control tests of all materials received and only use qualified materials in the manufacturing process. We manufacture and package the products according to pre-set and standardized procedures. We conduct full specification testing on quality control for every batch of finished products. Once it is confirmed that our products comply with such specifications, our quality assurance team releases the products for sale. See "Business — Quality Control" in this prospectus for details.

As of December 31, 2017, we had eight, two and one production facilities for (i) imaging diagnostic and therapeutic radiopharmaceuticals, (ii) UBT kits and analyzers and (iii) in vitro immunoassay diagnostic reagents and kits, respectively. All of these facilities are located in China and are GMP-accredited. Our production facilities of imaging diagnostic and therapeutic radiopharmaceuticals are located in Beijing, Chengdu, Shanghai, Hangzhou, Tianjin, Chongqing, Zhengzhou and Guangzhou. Our production facilities of UBT kits and analyzers are located in Shenzhen and Tongcheng. Our production facility of in vitro immunoassay diagnostic reagents and kits is located in Beijing. We mainly purchase our production equipment from suppliers in China. Our major assets and equipment for production of pharmaceuticals are aged from five to 20 years. As of December 31, 2017, the average remaining useful life of major production equipment of our pharmaceuticals was 4.3 years. Periodic maintenance for the production facilities and equipment are primarily carried out by our internal production and engineering team to ensure their performance is at an optimal level. We replace or upgrade production equipment and machinery when necessary to enhance their productivity or functionality. We did not experience any material interruptions to our

pharmaceuticals production due to facilities or equipment failure during the Track Record Period and up to the Latest Practicable Date.

As of the Latest Practicable Date, we also had one manufacturing and research and development base and ten new manufacturing and distribution facilities under construction for imaging diagnostic therapeutic radiopharmaceuticals, and two new production facilities under construction for UBT kits and analyzers. See "Business — Expansion Plan" in this prospectus for more details.

The following table shows the utilization rate of our production facilities of pharmaceuticals during the Track Record Period:

# Imaging diagnostic and therapeutic radiopharmaceuticals

	2015				2016		2017			
	Annual Design Capacity <sup>(1)</sup>	Actual Production Volume	Utilization Rate <sup>(2)</sup>	Annual Design Capacity <sup>(1)</sup>	Actual Production Volume	Utilization Rate <sup>(2)</sup>	Annual Design Capacity <sup>(1)</sup>		Utilization Rate <sup>(2)</sup>	
Fluorine-18-FDG injection (Ci) <sup>(3)</sup>	11,600	4,892	42.2%	11,600	4,999	43.1%	11,600	4,343	37.4%	
Molybdenum-99/technetium 99m generator $(Ci)^{(3)}$		9,078	32.4%	28,000	10,737	38.3%	28,000	16,146	57.6%	
Technetium-99m labeled injections (vial) <sup>(3)</sup>	567,000	273,187	48.2%	567,000	294,642	52.0%	567,000	344,471	60.8%	
Sodium iodine-131 oral solution (Ci)	17,000	13,971	82.2%	17,000	15,300	90.0%	17,000	13,395	78.8%	
Iodine-125 sealed source (unit) <sup>(4)</sup>	200,000	230,000	115.0%	200,000	260,000	130.0%	350,000	304,871	87.1%	
Strontium-89 chloride injection (vial) <sup>(3)</sup>	35,000	13,285	38.0%	35,000	14,034	40.1%	35,000	14,615	41.8%	

#### Notes:

- (1) Annual design capacity is calculated based on the unit of radiopharmaceuticals of each batches, the number of batches could be produced during a working day or a week and the number of working day or week during a year subject to the maximum radioactivity level per annum prescribed by the relevant radiation safety permits.
- (2) Utilization rate was calculated by dividing the actual production volume by the annual design capacity for the period indicated.
- (3) During the Track Record Period, utilization rates of these imaging diagnostic and therapeutic radiopharmaceuticals were relatively low primarily because we arrange production primarily based on the demand of the relevant products from the hospital and other medical institution customers. The use of radiopharmaceuticals is limited and the hospital and other medical institutions order our products when it is required for the diagnosis and treatment of their patients.
- (4) Utilization rate of iodine-125 sealed source exceeded 100.0% during the Track Record Period because we increased production staff as well as arranged overtime work on Saturdays and Sundays in response to the increased orders.

# UBT kits and analyzers

		2015		2016		2017	
	Annual Design Capacity <sup>(1)</sup>	Actual Production Volume (unit)	Utilization Rate <sup>(2)</sup>	Actual Production Volume (unit)	Utilization Rate <sup>(2)</sup>	Actual Production Volume (unit)	Utilization Rate <sup>(2)</sup>
Carbon-14 UBT kits <sup>(3)</sup>	18,000,000	15,036,280	83.5%	19,368,240	107.6%	27,388,800	152.2%
Carbon-13 urea UBT kits	5,000,000	3,414,176	68.3%	3,875,809	77.5%	3,850,497	77.0%
Carbon-14 UBT analyzers	5,200	2,811	54.1%	5,125	98.6%	4,698	90.4%
Carbon-13 UBT analyzers <sup>(3)</sup>	1,000	1,089	108.9%	488	48.8%	498	49.8%

#### Notes:

(1) Annual design capacity was calculated based on the number of products could be produced during a working day and the number of working days during a year. Annual design capacity of Carbon-14 UBT kits is also subject to the maximum radioactivity level per annum prescribed by the relevant radiation safety permit.

- (2) Utilization rate was calculated by dividing the actual production volume by the annual design capacity for the period indicated.
- (3) Utilization rate of carbon-14 UBT kits exceeded 100.0% in 2016 and utilization rate of carbon-13 UBT analyzers exceeded 100.0% in 2015 because we increased production staff as well as arranged overtime work in response to the increased orders of our products.

# In vitro immunoassay reagents and kits

		2015		2010	6	2017	
	Annual Design Capacity <sup>(1)</sup>	Actual Production Volume (unit)	Utilization Rate <sup>(2)</sup>	Actual Production Volume (unit)	Utilization Rate <sup>(2)</sup>	Actual Production Volume (unit)	Utilization Rate <sup>(2)</sup>
RIA kits EIA reagents, CLIA reagents	200,000	141,207	70.6%	131,783	65.9%	114,387	57.4%
and TRFIA reagents (3) Colloidal gold reagents(4)	100,000 100,000	53,955 1,513	54.0% 1.5%	48,465 1,276	48.5% 1.3%	- ,	49.1% 0.7%

#### Notes:

- (1) Annual design capacity is calculated based on the number of products of each batches and the number of batches could be produced during a year. Annual design capacity of RIA kits is also subject to the maximum radioactivity level per annum prescribed by the relevant radiation safety permit.
- (2) Utilization rate was calculated by dividing the actual production volume by the annual design capacity for the period indicated.
- (3) The major production processes of EIA reagents, CLIA reagents and TRFIA reagents are identical. In addition, EIA reagents, CLIA reagents and TRFIA reagents share the same production line. Therefore, these three types of products are combined for the calculation of annual design capacity and utilization rates.
- (4) Colloidal gold reagents had low utilization rates because we produced and sold only one type of colloidal gold reagent during the Track Record Period.

# Raw Materials and Suppliers for Pharmaceuticals

# Imaging diagnostic and therapeutic radiopharmaceuticals

The major raw materials of our imaging diagnostic and therapeutic radiopharmaceuticals are radioisotopes, such as iodine-131, molybdenum-99, phosphorus-32, iodine-125 and strontium-89 in the form of solution, which we import from overseas suppliers in Poland, Canada, Russia, South Africa and Belgium. We typically enter into sales contract with our suppliers for each transaction which specifies the product type, unit price, quantity, transportation means, delivery place, time of shipment and payment method. See "Risk Factors — We depend on a stable and adequate supply of quality raw materials and products from our suppliers" in this prospectus.

# UBT kits and analyzers

The major raw materials of our UBT kits and analyzers are carbon-13 and carbon-14, in the form of powder. As of the Latest Practicable Date, we purchased carbon-13 solely from a US manufacturer through its trading subsidiary in Shanghai. As of the Latest Practicable Date, to our best knowledge, such supplier was the only duly registered supplier of carbon-13 in the PRC from which we can source carbon-13. We typically enter into one-year purchase agreement with such supplier and execute monthly purchase orders, as prescribed in the purchase agreement. We primarily purchase carbon-14 from overseas manufacturers in the United States and Russia. We typically enter into sales contract with our carbon-14 supplier for each transaction which specifies the product type, unit price, quantity, transportation means, delivery place, time of shipment and payment method. See "Risk Factors — We depend on a stable and adequate supply of quality raw materials and products from our suppliers" in this prospectus.

# In vitro immunoassay reagents and kits

The major raw materials of our in vitro immunoassay reagents and kits are (i) iodine-125 solution, and (ii) various antigens and antibodies. We primarily purchase iodine-125 solution from an

overseas supplier in the United States, and purchase antigens and antibodies in the PRC. We typically enter into standard purchase orders with our suppliers of major raw materials for in vitro immunoassay reagents and kits.

See "Business — Quality Control — Quality Control of Raw Materials" for further details of the selection and performance review of our major raw materials suppliers.

# RADIOACTIVE SOURCE PRODUCTS

We are the leading radioactive source products manufacturer in China. We were the largest medical and industrial radioactive source products manufacturer in China for 2017, in terms of revenue, accounting for 84.5% and 53.4% of the market share, respectively, according to Frost & Sullivan. Our radioactive source products business mainly encompasses the research, development, manufacturing and sale of medical and industrial radioactive source products to radiotherapy equipment manufacturers, irradiation service providers, non-destructive testing equipment manufacturers and service providers and oil field operators in China for use in radiotherapy, irradiation service, non-destructive testing and oil field tracer technical services, respectively.

In addition, we also provide technical services including sealed source reloading, radioactive material transportation and decommission of radioactive sources. We also import certain radioactive source products from overseas manufacturers in Russia for distribution and sale to our customers in China.

#### **Product Portfolio**

Our radioactive source products are primarily categorized into two types, namely, medical radiotherapy and industrial radioactive source products. Our major medical radioactive source products include (i) cobalt-60 source for gamma knife (鈷-60伽瑪刀源) and (ii) iridium-192 brachytherapy source (銥-192近距離治療源) for medical radiotherapy purpose.

Our major industrial radioactive source products include: (i) cobalt-60 source (鈷-60輻照源) for irradiation service to sterilize medical devices, food, traditional Chinese medicine and cosmetics; (ii) californium-252 neutron source (鐦-252啓動中子源), which is widely used to start up nuclear reactors; (iii) iridium-192 non-destructive testing radioactive source (銥-192無損探傷源), which is widely used as a gamma ray source in industrial radiography to locate flaws in metal components; (iv) caesium-137 source (銫-137源), which is widely used in flow meters, thickness gages, moisture-density gages and gamma ray well-logging devices; and (v) americium-241/beryllium neutron source (鋂鈹中子源), which is widely used in well-logging and neutron moisture gage.

The following table sets forth a breakdown of revenue from our radioactive source products and technical services segment by product category for the periods indicated:

	Year ended December 31,							
	2015		2016		2017			
	Amount %		Amount	%	Amount	%		
	(R	MB in r	nillions, exc	ept in p	ercentage)			
Medical radioactive source products	46.8	17.0	56.6	19.7	60.0	20.5		
Industrial radioactive source products	199.4	72.5	210.1	73.0	192.6	65.9		
Cobalt-60 sealed source for irradiation service	60.3	21.9	66.7	23.2	78.1	26.7		
Other industrial radioactive sources	139.1	50.6	143.4	49.8	114.5	39.2		
Technical services	29.0	10.5	21.0	7.3	39.6	13.6		
Total	275.2	100.0	287.7	100.0	292.2	100.0		

The following table sets forth the details of our major radioactive source products:

Product	Application	Half-life of radioisotopes		
Radioactive source for medical radiotherapy				
Cobalt-60 source for gamma knife	Gamma knife	5.3 years		
A PP				
Iridium-192	Brachytherapy	73.8 days		
brachytherapy source				
Radioactive source for industrial use				
Cobalt-60 source for irradiation service	Irradiation facilities	5.3 years		
Californium-252 startup neutron source	Startup of nuclear reactors	2.6 years		
111111				
Iridium-192 non-destructive testing radioactive source	Non-destructive testing equipment	73.8 days		
testing fautoucuve source				
Cesium-137 source	Radiation detection equipment	30.2 years		

432.2 years

Product Application Half-life of radioisotopes

Well-logging applications

Americium-241/Beryllium neutron source



# Radioactive source products for medical radiotherapy

Cobalt-60 source for gamma knife

We produce cobalt-60 source for gamma knife therapy. Gamma knife is the common name for gamma ray stereotactic radiotherapeutic system (伽瑪射綫立體定向治療系統). Gamma knife therapy system includes a head device or a body device, or an integration device. Gamma knife therapy is a type of radiosurgery which delivers doses of radiation precisely to kill cancer cells and shrink tumors. The gamma knife therapy device targets the gamma ray through the target point in the patient's brain or body. The radiation penetrates the tumor without affecting the surrounding brain or tissue.

The revenue generated from our cobalt-60 source for gamma knife amounted to RMB15.1 million, RMB39.7 million and RMB13.4 million, respectively, in 2015, 2016 and 2017, representing 5.5%, 13.8% and 4.6%, respectively, of our radioactive source products segment revenue in the same periods.

# Iridium-192 brachytherapy source

Iridium-192 brachytherapy source is used in a remote controlled close-range therapy machine after being installed therein. Brachytherapy is a type of radiotherapy which either places a radioactive source (with the aid of an applicator) within a human natural lumen or implants a tiny needle into a tumor body before importing a radioactive source.

The revenue generated from our iridium-192 brachytherapy source amounted to RMB11.0 million, RMB15.3 million and RMB15.0 million, respectively, in 2015, 2016 and 2017, representing 4.0%, 5.3% and 5.1%, respectively, of our radioactive source products segment revenue in the same periods.

# Radioactive source for industrial use

Cobalt-60 source for irradiation service

As of the Latest Practicable Date, we were the only domestic provider of cobalt-60 sealed source for irradiation sterilization of medical devices, food, traditional Chinese medicine and cosmetics in China, according to Frost & Sullivan. We manage the production and sale of cobalt-60 sealed source for irradiation service through CNNC Tongxing, a joint venture established by Qinshan No. 3 Nuclear Power and us. See "Business — Radioactive source products — Manufacturing of Radioactive Source Products" in this prospectus for the details of our role in the production management and sales of cobalt-60 sealed source for irradiation service.

The revenue generated from cobalt-60 sealed source for irradiation service amounted to RMB60.3 million, RMB66.7 million and RMB78.1 million, respectively, in 2015, 2016 and 2017, representing 21.9%, 23.2% and 26.7%, respectively, of our radioactive source products segment revenue in the same periods.

# Californium-252 startup neutron source

Startup neutron source is a neutron source used for the stable and reliable initiation of nuclear chain reaction in nuclear reactors. They are loaded with fresh nuclear fuel, whose neutron flux from spontaneous fission is insufficient for a reliable startup, or after prolonged shutdown periods. Neutron sources ensure a smooth startup as a result of a constant and sufficient population of neutrons in the reactor core. Californium-252 is a conventional neutron source for nuclear reactor startup.

The revenue generated from our californium-252 startup neutron source amounted to RMB30.2 million, RMB30.1 million and RMB14.4 million, respectively, in 2015, 2016 and 2017, representing 11.0%, 10.5% and 4.9%, respectively, of our radioactive source products segment revenue in the same periods.

# *Iridium-192 non-destructive testing radioactive source*

Iridium-192 is widely used for non-destructive testing as result of the ability of industrial gamma radiography to locating flaws in metal components. Industrial gamma radiography involves the testing and grading of welds on pressurized piping, pressure vessels, pressure containers, high-capacity storage containers, pipelines and certain structural welds and valves. Gamma radiography is also used to identify flaws in metal castings and welded joints, as well as to indicate structural anomalies due to corrosion or mechanical damage.

The revenue generated from iridium-192 non-destructive testing radioactive source amounted to RMB25.5 million, RMB22.9 million and RMB26.0 million, respectively, in 2015, 2016 and 2017, representing 9.3%, 7.9% and 8.9%, respectively, of our radioactive source products segment revenue in the same periods.

# Cesium-137 source

Caesium-137 source is typically used in radiation-detection equipment, flow meters, thickness gages, moisture-density gages and gamma ray well logging devices.

The revenue generated from cesium-137 source amounted to RMB11.6 million, RMB13.4 million and RMB10.3 million, respectively, in 2015, 2016 and 2017, representing 4.2%, 4.6% and 3.5%, respectively, of our radioactive source products segment revenue in the same periods.

#### Americium-241/Beryllium neutron source

Americium-241/Beryllium neutron source is widely used in neutron moisture meter, a device for measuring water content in soil, and moisture/density quality control of expressway construction. Americium-241/Beryllium neutron source is also used in well-logging applications as well as neutron radiography.

The revenue generated from americium-241/beryllium neutron source amounted to RMB3.8 million, RMB6.4 million and RMB0.9 million, respectively, in 2015, 2016 and 2017, representing 1.4%, 2.2% and 0.3%, respectively, of our radioactive source products segment revenue in the same periods.

#### Sales and Customers for Radioactive Source Products

We primarily sell radioactive source products directly to our customers such as radiotherapy equipment manufacturers, irradiation service providers, non-destructive testing equipment

manufacturers and service providers and oil field operators in China. Radioactive source products are sold by their level of radioactivity, which is measured in Ci. We typically enter into standard form sales agreements with our customers which specify terms including product type, specification, quantity, unit price and transportation means.

# Radioactive source products for medical applications

Our primary customers of cobalt-60 radioactive source for medical applications are manufacturers of gamma knife and gamma ray radiotherapy equipment in China. We generally enter into sales agreements with customers for each transaction. The sales contracts would typically specify the product type, unit price, quantity, transportation means, delivery place, time of shipment and payment method.

# Radioactive source for industrial use

Our primary customers of cobalt-60 radioactive source for irradiation service are third-party irradiation service providers in China. The revenue generated from the sales to third-party irradiation service providers was RMB60.3 million, RMB66.7 million and RMB78.1 million in 2015, 2016 and 2017, respectively. We also supply cobalt-60 source to our subsidiaries engaging in the supply of irradiation service at their respective irradiators.

In addition to the agreements with our customers with respect to the purchase of our cobalt-60 source for irradiation service, we entered into framework agreements with key customers. We consider customers who purchase over 0.8 million Ci per annum as our key customers. We entered into two three-year framework agreements with two customers and two five-year framework agreements with one customer. The framework agreement provides the customary terms such as the irradiation service fee per Ci, the available discounts and settlement method. The two three-year framework agreements expired in December 2016 and expires in August 2019, respectively. The two five-year framework agreements expired in December 2017. As of the Latest Practicable Date, we had not renewed the expired framework agreements. Even though we are not able to renew such agreements, it would not materially and adversely affect our business operations because our sales to key customers did not constitute the majority of our revenue from the sales of cobalt-60 source for irradiation service during the Track Record Period. In 2015, 2016 and 2017, the revenue generated from the sales to the key customers amounted to nil, RMB16.4 million and RMB17.9 million, respectively, accounting for nil, 24.6% and 22.9% of our revenue generated from the sales of our cobalt-60 source for irradiation service during the same periods. We typically grant different discounts to our catalog prices to customers based on the purchase volume. We typically require customers to make payment prior to the delivery of products.

Our primary customers of our other radioactive source products for industrial use are non-destructive testing equipment manufacturers, non-destructive testing service providers and oil field operators in China. We generally enter into sales agreements with such customers with respect to each transaction.

#### **Manufacturing of Radioactive Source Products**

#### Cobalt-60 sealed source for medical application

We mainly import cobalt-60 for medical application from overseas suppliers in Russia and Canada to manufacture our cobalt-60 source products for medical applications. Cobalt-60 is shipped to

our facilities where it is processed and encapsulated into a variety of physical forms with specific levels of radioactivity.

# Cobalt-60 sealed source for irradiation service

We manage the production and sales of cobalt-60 sealed source for irradiation service instead of manufacturing the product ourselves. Cobalt-60 for irradiation service is produced in the nuclear reactor operated by Qinshan No. 3 Nuclear Power in Zhejiang province. Cobalt-60 is then shipped to the facilities of CIAE where it is processed and doubly encapsulated at specific levels of radioactivity. Delivery of irradiators is usually accompanied by an initial shipment or "loading" of cobalt-60 sealed source. Replenishment of cobalt-60 sealed source is required from time-to-time, as the radioactivity level of cobalt-60 declines at a rate of approximately 12% per year. Cobalt-60 sealed source is delivered to customers using nationally approved transport containers and procedures in China.

We contracted with our related parties with respect to the production of cobalt-60 sealed source for irradiation service. We entered into the following service contracts with our related parties in this regard:

- Cobalt-59 control rod supply contract (鈷-59調節棒組件供應合同) with China North Nuclear Fuel, pursuant to which we purchase cobalt-59 control rod from China North Nuclear Fuel;
- Cobalt-59 control rod irradiation contract (鈷-59調節棒組件輻照合同) with Qinshan No.3 Nuclear Power, pursuant to which Qinshan No.3 Nuclear Power is responsible for the irradiation of cobalt-59 control rod; and
- Cobalt-60 source seal contract (鈷-60放射源產品封裝合同) and transportation service contract (放射源運輸合同) with CIAE, pursuant to which CIAE is responsible for the transportation of cobalt-60 produced from Qinshan No. 3 Nuclear Power to the facilities of CIAE and sealing of the cobalt-60 source to provide cobalt-60 sealed source product for delivery to customers.

We rely on our related parties to manufacture cobalt-60 sealed source for irradiation service. According to Frost & Sullivan, such related parties are the only qualified suppliers in China of cobalt-60 sealed source for irradiation service. We believe there is remote risk that these related parties would not renew the contracts with us upon expiry of the existing contracts because all these entities are under the common control of our Controlling Shareholder.

# Other radioactive source products for industrial use

We import californium-252, iridium-192, cesium-137, americium-241 and other radioisotopes raw materials to manufacture other radioactive source products for industrial use as disclosed above.

The following table sets forth our designed annual production capacity and actual production volume of our major radioactive source products during the Track Record Period:

		2015		2015 2016		2017	
Name of Products	Annual Design Capacity <sup>(1)</sup>	Actual Production Volume	Utilization Rate <sup>(3)</sup>	Actual Production Volume	Utilization Rate <sup>(3)</sup>	Actual Production Volume	Utilization Rate <sup>(3)</sup>
			(in Ci, ex	xcept in perce	ntage)		
Cobalt-60 source for gamma $knife^{(4)}$	2.3 million	54,392	2.4%	194,386	8.5%	42,380	1.8%
Iridium-192 brachytherapy source	10,000	5,736	57.4%	5,296	53.0%	5,198	52.0%
Cobalt-60 source for irradiation service	14.0 million	4.7 million	33.6%	4.3 million	30.7%	7.3 million	52.1%
Californium-252 startup neutron source <sup>(2)</sup>	_	_	_	_	_	_	_
Iridium-192 non-destructive testing							
radioactive source <sup>(5)</sup>	1.0 million	227,355	22.7%	147,605	14.8%	74,130	7.4%
Caesium-137 radioactive source <sup>(5)</sup>	700	51	7.2%	113.3	16.2%	49	7.0%
Americium-241/Beryllium neutron source <sup>(5)</sup>	1000	38	3.8%	44.3	4.4%	71	7.1%

#### Notes:

- (1) Annual design capacity is prescribed by the relevant radiation safety permits, which set forth the maximum radioactivity level per annum.
- (2) We do not manufacture californium-252 startup neutron source. During the Track Record Period, we purchased californium-252 startup neutron source from overseas suppliers and sold to customers in the PRC.
- (3) Utilization rate was calculated by dividing the actual production volume by the annual design capacity for the period indicated.
- (4) During the Track Record Period, the utilization rates of cobalt-60 source for gamma knife were low, primarily due to insufficient supply of cobalt-60 raw materials for manufacturing cobalt-60 source for gamma knife from oversea suppliers. We are currently in the process of research and development of domestication medical cobalt-60 raw materials to better control the raw materials source.
- (5) During the Track Record Period, the utilization rates of iridium-192 non-destructive testing radioactive source, caesium-137 radioactive source and americium-241/beryllium neutron source were relatively low, primarily due to the limited use of such products and low market demand of such products from non-destructive testing equipment manufacturers and oil field operators.

#### Raw Materials and Suppliers for Radioactive Source Products

Our major raw materials of cobalt-60 sealed source for medical radiotherapy is cobalt-60, which we import from overseas suppliers in Canada and Russia. We primarily purchase radioisotopes for our radioactive source products for industrial use other than cobalt-60 radioactive source for irradiation service from Russia, the UK, and United States. We typically enter into sales contract with our supplier for each transaction which specifies the product type, unit price, quantity, transportation means, delivery place, time of shipment and payment method.

For further details about the selection and performance review of our suppliers of major raw materials, see "Business — Quality Control — Quality Control of Raw Materials" in this prospectus.

#### **IRRADIATION**

Our irradiation segment comprises (i) the provision of irradiation service to manufacturers of medical devices, traditional Chinese medicine, cosmetics and food in China for sterilization purpose and (ii) the provision of EPC services relating to irradiation facilities to irradiation service providers.

The following table sets forth a breakdown of revenue from our irradiation segment by service category for the periods indicated:

	Year ended December 31,							
	2015		2016		201	7		
	Amount	%	Amount	%	Amount	%		
	(F	RMB in 1	millions, exc	ept in p	ercentage)			
Irradiation service	38.5	80.4	44.3	86.7	53.0	80.4		
EPC service	9.4	19.6	6.8	13.3	13.0	19.6		
Total	47.9	100.0	51.1	100.0	65.9	100.0		

#### **Irradiation Service**

We provide irradiation service to manufacturers of medical devices, traditional Chinese medicine, cosmetics and food for sterilization through our irradiation facilities. Irradiation facility houses cobalt-60 sealed source and emits radiation to destroy harmful micro-organisms. The products to be sterilized are moved into the interior chamber of the irradiation facilities where they are safely exposed to radiation from cobalt-60 for sterilization irradiation, leaving the products untouched in their original packaging. According to Frost & Sullivan, in 2017, we were the third largest irradiation service supplier in terms of revenue in China.

#### Irradiation process

As of the Latest Practicable Date, we were accredited with TUV (ISO 13485: 2012) certification, the FDA (QSR/cGMP) certification and the general requirements for the competence of testing and calibration laboratories (ISO/IEC 17025:2005) certification in connection with irradiation sterilization process of medical facilities for sterilization. Our irradiation work complies with the procedures and requirements prescribed under these standards. The typical irradiation cycle involves the following key steps:

- Preliminary work: to confirm irradiation products, set sterilization dose (minimum and maximum dose) of target product and its loading mode, dose field distribution and sterilizing time in the irradiation box;
- Contract review: to evaluate the target product prescribed in the service contract in terms of dose, density, volume, delivery time and prepare the processing plan;
- Customer order: customers generally inform the sterilization program one to three days in advance;
- The target product is received by lot and placed in the warehouse of irradiation products, its product information is input into our operations management system, the processing plan is developed by our production department according to the prescribed process parameters;
- The target product is loaded into the processing container per established plan, dosimeters are placed, and irradiation is conducted in the irradiation field;
- Product release: the irradiation product are evaluated by the quality control department including with respect to irradiation dose and product quantity. Certificate of irradiation will be issued when it is confirmed that the irradiation product meets the customer's specifications;

• To maintain the effectiveness of the sterilization, experimental verification is carried out for the effectiveness of set dose every three months after conventional sterilization of the target product.

# Irradiation facilities

As of the Latest Practicable Date, we owned and operated seven irradiation facilities in China through our subsidiaries in Beijing, Suzhou, Haikou, Changchun and Chengdu. Due to the transportation cost, customers of irradiation service are typically located within a 200 km to 300 km radius of the irradiation service providers. We strategically located our seven irradiation facilities in the proximity of the Yangtze River Delta, the Pearl River Delta, and the population centers of Northeastern China and Southwestern China where we are able to capitalize on the market demand of sterilization in these economically developed areas.

The following table illustrates the details of our seven irradiation facilities as of December 31 of 2015, 2016 and 2017:

	Year ended December 31,									
	20	15	20	16	2017					
	Designed capacity (設計裝源量)(1)	Actual capacity (實際裝源量) <sup>(1)</sup>	Designed capacity (設計裝源量) <sup>(1)</sup>	ity capacity capaci		Actual capacity (實際裝源量) <sup>(1)</sup>				
			(in mill	lion Ci)						
Wujiang, Suzhou <sup>(2)</sup>	4.0	2.9	4.0	3.1	4.0	3.14				
Zhangjiagang, Suzhou <sup>(3)</sup>	2.0	0.7	2.0	0.8	2.0	0.7				
Haikou <sup>(4)</sup>	0.5	0.2	0.5	0.2	0.5	0.2				
Beijing <sup>(5)</sup>	0.3	0.06	0.3	0.2	0.3	0.16				
Changchun <sup>(6)</sup>	2.0	0.8	2.0	0.7	2.0	0.65				
Chengdu <sup>(6)</sup>	4.0	0.6	4.0	0.9	4.0	0.74				
Total	12.8	5.3	12.8	5.9	12.8	5.59				

#### Notes:

- (1) Designed capacity is the designed maximum amount of cobalt-60 sealed source in terms of Ci could be installed given the conditions of a particular irradiation facility. Actual capacity is the actual amount of cobalt-60 sealed source in terms of Ci at a particular irradiation facility at the end of the period. The radioactivity of cobalt-60 sealed source decreases as cobalt-60 decays at a relatively constant speed during a year regardless of the amount or volume of cargo it has irradiated. Therefore, the utilization rate of machinery and equipment for our products disclosed in this prospectus is not applicable to irradiation facility housing cobalt-60 sealed source.
- (2) There are two irradiation facilities in Wujiang, Suzhou. The irradiation facilities commenced operation in November 1994 and April 2004, respectively.
- (3) The irradiation facility in Zhangjiagang commenced operation in April 2004.
- (4) The irradiation facility in Haikou commenced operation in March 1995.
- (5) The irradiation facility in Beijing commenced operation in November 1984.
- (6) The irradiation facilities in Changchun and Chengdu started trial operation in July 2015 and January 2016, respectively.

#### **EPC Service**

As of the Latest Practicable Date, we were two out of three qualified EPC service providers approved by the MEP to engage in EPC projects for irradiation facilities in China. We were the pioneer in the design, production and installation of irradiation facilities in China. According to Frost & Sullivan, we were the largest EPC service provider for the design, manufacturing and installation of irradiation facilities in terms of revenue combined during the Track Record Period in China.

Under the EPC service, we, as the general contractor of an irradiation facility project, undertake services including design, equipment and raw materials procurement, construction and installation, testing, trial operation, joint inspection and acceptance with the customer. We undertake overall

responsibility for all elements of the irradiation facilities project and coordinate the integration of the irradiation facilities onsite with the customer's facilities in order to deliver tailor-made solutions to our customers.

Set forth below are the key steps of our typical EPC project and the general salient terms of the EPC contracting and technical service contract we enter into with our customers:

- Design: we are responsible for the design and optimization of the project proposal. We submit our design to customers for review and comment.
- Contract execution: upon the customer's acceptance of our proposal and design, we will enter into an EPC general contracting and technical service agreement with the customer.
- Pricing: the total fees for the EPC project are based on the industry standards and the prevailing market prices.
- Payments by installments: customer typically makes payments to us by installments
  according to the progress of the project. Payments are usually required to be made,
  respectively, upon signing of the contract, delivery of the main equipment to the customer,
  the acceptance and inspection of the equipment by the customer and upon expiry of the
  warranty period.
- Delivery: suppliers of components of irradiation facilities are responsible for delivering the components to the customer's place for installation.
- Installation: we are responsible to our customer for the quality of all the components of the irradiation facility and any damages occurred or delay due to our fault in the installation process.
- Testing, trial operation, inspection and acceptance: upon the completion of construction and installation, we will test each of the components of the irradiation facilities, and perform trial operation. After trial operation and jointly with the same customer, we carry out performance testing for the relevant facility to determine whether such facility has achieved the technical performance and indices stipulated in the contract. After the facility has achieved the stipulated performance and indices and successfully gone through a certain period of trial operation, our customer will issue an inspection and acceptance certificate.
- Warranty period and retention: we generally provide our customer with a one-year warranty period. During the warranty period, the customer retains the last installment of the contract price. Upon expiration of the warranty period, our customer will make the last installment payment to us within the term specified in the contract.
- Termination: either party could terminate the contract by compensating the other party for twice the amount of consideration paid by the customers.

Our Directors have confirmed that during the Track Record Period and up to the Latest Practicable Date, there had been no material breach by us of any contractual quality or function assurance, and none of our customers had declined to accept the EPC projects completed and delivered by us.

# Sales and Customers of Irradiation Segment

#### Irradiation service

We generally sell our irradiation service directly to our customers without any intermediaries or agents. Our customers of irradiation service mainly include manufacturers of medical devices, food, traditional Chinese medicine and cosmetics in China. We typically enter into standard framework service contracts with our customers. We then execute orders from the relevant customer for sterilization of each batch of products during the term of the service contract as requested.

The following sets forth the salient terms of the general service contracts entered into with our customers:

- Duration: our service contracts are generally valid for a term of one to two years.
- Pricing: the service fee is stipulated as at a fixed sum per cubic meter or per unit. Such
  price takes into account the irradiation dose, product volume, special requirements of the
  customer, our service cost and our necessary profit margin. The price remains unchanged
  during the term of the service contract.
- Delivery: the customer is responsible for delivering the products to our facilities for processing. We are responsible for delivering the processed products to the customer.
- Warehousing: we are responsible for warehousing the customers' products to ensure that the irradiated and processed products are stored separately.
- Payment and credit terms: we generally require our customers to pay us by the end of the following month upon receipt of our invoice. Payments to us are normally settled by bank remittances.
- Exclusivity: we are not allowed to sub-contract the irradiation service to third parties without prior consent of the customer.
- Return and replacement policy: we are responsible for reaching the irradiation standard required by the customer and issuing the irradiation certificate. We are required to compensating the customer if the products are not fit for purpose due to a defective quality.
- Termination: certain service contracts provide the customer with the entitlement to terminate the contract if we fail to maintain the prescribed license or qualifications.

#### EPC service

We generally enter into EPC service contract with our customers directly. For the salient terms of our EPC service contract, see "Business — Irradiation — EPC Service" in this prospectus.

# **Raw Materials and Suppliers**

# EPC service

The major raw materials which we procure for the supply of EPC service are (i) tailor-made machinery and equipment designed for the particular irradiation facilities, such as containers (輻照箱), source rack (板源架), and cobalt source hoist mechanism (鈷源升降裝置) and (ii) a belt conveyor system (傳送系統) used to move the target products to be irradiated. We, as the general contractor for an EPC project, are responsible for choosing and engaging qualified suppliers in connection with the

manufacturing of the key machinery and equipment of irradiation facilities. We primarily purchase tailor-made machinery and equipment and belt conveyor system from suppliers in China. The purchase contract of tailor-made machinery and equipment and belt conveyor system typically sets forth the name of the equipment, quantity, specification, delivery time and warranty period.

#### Irradiation service

Our major raw material for irradiation service is cobalt-60 sealed source for irradiation service sourced from CNNC Tongxing. In the past, we have also purchased cobalt-60 sealed source from overseas suppliers in Russia and Canada. We purchase and replenish cobalt-60 sealed source every year.

# INDEPENDENT CLINICAL LABORATORY SERVICES AND OTHER BUSINESSES

As a downstream extension of our in vitro immunoassay diagnostic reagents and kits business, we provide independent clinical laboratory services to hospitals and other medical institutions in connection with hepatitis, endocrine, bone metabolism, cardiovascular disease, diabetes, blood diseases, trace elements, prenatal and postnatal care, tumors, thyroid function, sex hormone function, kidney urinary system, autoimmune diseases, humoral cellular immunity, digestive tract diseases and bone marrow cytology. We maintain CLIA laboratory, fluorescent polymerase chain reaction laboratory, radioimmunoassay laboratory, biochemistry laboratory, serum immunology laboratory and microbiology laboratory. We were also engaged in the provision of transportation service and the trading of copper during the Track Record Period. As we intend to focus on our core business of isotopes and irradiation technology in the PRC, we ceased the copper trading business in April 2016.

The following table sets forth a breakdown of revenue from our independent clinical laboratory services and other businesses segment by service category for the periods indicated:

	Year Ended December 31,						
	2015		2016		2017	7	
	Amount	%	Amount	%	Amount	%	
	(RMB in millions, except in percentage)						
Independent clinical laboratory services	36.8	66.4	43.5	81.8	57.5	95.7	
Copper trading and others	18.6	33.6	9.7	18.2	2.6	4.3	
Total	55.4	100.0	53.2	100.0	60.1	100.0	

# **BUSINESS OPERATIONS INVOLVING RESTRICTED COUNTRIES**

In 2015, 2016 and 2017, the revenue from our business involving Restricted Countries was approximately RMB0.50 million, RMB0.98 million and RMB0.59 million, respectively, which accounted for approximately 0.02%, 0.04% and 0.02% of the total revenue of our Group. Our Directors do not expect a significant increase in the revenue from Restricted Countries after the Listing.

Neither the Company nor any member of our Group is a Designated Person or a Sectoral Sanctions Target and we conducted no business with any Designated Person or Sectoral Sanctions Targets during the Track Record Period and up to the Latest Practicable Date. Based on the advice of our legal advisors which is based on information and assurances<sup>(1)</sup> provided by our Group, we believe that our business, during the Track Record Period and up to the Latest Practicable Date, involving Cuba, Iraq, Russia, Egypt, Libya, Tunisia, and Yemen did not violate any Sanctions. Based on the advice of our legal advisors which is based on information and assurances provided by our Group, we

also believe that the majority of our business involving Iran and Sudan did not violate any Sanctions. However, we did engage in a limited number of US\$ denominated sales to Iran and Sudan. The Company received payments for these sales into a RMB denominated account at a Chinese bank. However, the Company does not have sufficient access to information from its bank to determine if these payments sent by the customer were cleared through the US financial system before being deposited into the Company's RMB denominated account. After consulting our legal advisors, the Company believes, if the payments did clear through the US financial system, OFAC could potentially regard these transactions as violations. Based on the advice of our legal advisors which is based on information and assurances provided by our Group, we believe the risk that OFAC would designate the Company for sanctions for accepting these Iran and Sudan related payments is very low because the relevant transactions were not of a type that would be considered sanctionable activity under US extraterritorial sanctions as they did not involve persons designated under OFAC's counter-terrorism or non-proliferation sanctions or proscribed conduct. To our knowledge, we are not subject to any investigations by any Sanctions Authority as a result of these sales.

A brief summary of our Relevant Business involving Restricted Countries during the Track Record Period and up to the Latest Practicable Date is as follows:

#### Cuba

In 2015 and 2017, our Group exported medical testing kits to certain entities in Cuba which were not Designated Persons and our revenue from business with Cuba was approximately RMB0.01 million, nil and RMB0.01 million in 2015, 2016 and 2017, which accounted for less than 0.01% of the total revenue of our Group for the respective years. We do not expect our revenue from business with Cuba to increase significantly after the Listing.

Based on the advice of our legal advisors which is based on information and assurances provided by our Group, we do not believe that any of our Cuban business during the Track Record Period and up to the Latest Practicable Date violated any applicable Sanctions.

# **Egypt**

In 2015, our Group exported certain radioisotopes as radioactive source and medical test kits to certain entities in Egypt that were not Designated Persons and our revenue from business with Egypt was approximately RMB0.01 million, RMB0.01 million and nil in 2015, 2016 and 2017, respectively, which accounted for less than 0.01% of the total revenue of our Group for the respective years. We do not expect our revenue from business with Egypt to increase significantly after the Listing.

Based on the advice of our legal advisors which is based on information and assurances provided by our Group, we do not believe that any of our Egyptian business during the Track Record Period and up to the Latest Practicable Date violated any applicable Sanctions.

# Iraq

In 2015, 2016 and 2017, our Group exported medical testing kits to certain entities in Iraq that were not Designated Persons and our revenue from business with Iraq was approximately RMB0.01 million, RMB0.01 million and RMB0.05 million in 2015, 2016 and 2017, respectively, which accounted for less than 0.01% of the total revenue of our Group for the respective years. We do not expect our revenue from business with Iraq to increase significantly after the Listing.

Based on the advice of our legal advisors which is based on information and assurances provided by our Group, we do not believe that any of our Iraq business during the Track Record Period and up to the Latest Practicable Date violated any applicable Sanctions.

#### Iran

In 2015, 2016 and 2017, our Group exported certain radioisotopes and medical testing kits to certain entities in Iran that were not Designated Persons and our revenue from business with Iran was approximately RMB0.26 million, RMB0.80 million and RMB0.27 million in 2015, 2016 and 2017, respectively, which accounted for approximately 0.01%, 0.01% and 0.01% of the total revenue of our Group for the respective years. We do not expect our revenue from business with Iran to increase significantly after the Listing.

Based on the advice of our legal advisors which is based on information and assurances provided by our Group, we believe that the majority of our Iranian business during the Track Record Period and up to the Latest Practicable Date complied with applicable Sanctions. However, we did receive payment in US\$ for a limited number of historic Iranian sales in an aggregate amount of approximately US\$0.10 million during the Track Record Period and up to the Latest Practicable Date. As of the Latest Practicable Date, we were not aware of any investigation or proceedings by US authorities relating to these sales. See "Regulatory Environment — Description of Sanctions Laws — United States" for detailed description of relevant sanctions laws.

# Libya

In 2015, 2016 and 2017, our Group exported medical testing kits to certain entities in Libya that were not Designated Persons and our revenue from business with Libya was approximately RMB0.01 million, RMB0.01 million and nil in 2015, 2016 and 2017, respectively, which accounted for less than 0.01% of the total revenue of our Group for the respective years. We do not expect our revenue from business with Libya to increase significantly after the Listing.

Based on the advice of our legal advisors which is based on information and assurances provided by our Group, we do not believe that any of our Libya business during the Track Record Period and up to the Latest Practicable Date violated any applicable Sanctions.

#### Russia

In 2016 and 2017, our Group both imported radioisotopes as raw materials for our imaging diagnostic and therapeutic radiopharmaceuticals and radioactive source products from and exported our products, such as gas gathering cards and UBT analyzers, to certain entities in Russia that were neither Designated Persons nor Sectoral Sanctions Targets, and our revenue from business with Russia was approximately nil, RMB0.02 million and nil in 2015, 2016 and 2017, respectively, which accounted for less than 0.01% of the total revenue of our Group for the years ended December 31, 2015, 2016 and 2017, respectively. During the Track Record Period and up to the Latest Practicable Date, the amount of our purchases from Russia totaled approximately US\$20.55 million.

We do not expect our revenue from business with Russia to increase significantly after the Listing.

Based on the advice of our legal advisors which is based on information and assurances provided by our Group, we do not believe that any of our Russian business during the Track Record

Period and up to the Latest Practicable Date violated any applicable Sanctions, including any Sectoral Sanctions.

#### Sudan

In 2015, 2016 and 2017, our Group exported certain radioisotopes as radioactive materials and medical testing kits to certain entities in Sudan that were not Designated Persons and our revenue from business with Sudan was approximately RMB0.18 million, RMB0.08 million and RMB0.18 million in 2015, 2016 and 2017, respectively, which accounted for less than 0.01% of the total revenue of our Group for the respective years. We do not expect our revenue from business with Sudan to increase significantly after the Listing.

Based on the advice of our legal advisors which is based on information and assurances provided by our Group, we believe that the majority of our Sudan business during the Track Record Period and up to the Latest Practicable Date complied with applicable Sanctions. However, we did receive payment in US\$ for a limited number of historic Sudanese sales in an aggregate amount of approximately US\$0.04 million during the Track Record Period and up to the Latest Practicable Date. As of the Latest Practicable Date, we are not aware of any investigation or proceedings by US authorities relating to these transactions. See "Regulatory Environment — Description of Sanctions Laws — United States" for detailed description of relevant sanctions laws.

#### **Tunisia**

In 2016, our Group exported medical testing kits to entities in Tunisia that were not Designated Persons and our revenue from business with Tunisia was approximately nil, RMB0.02 million and RMB0.03 million in 2015, 2016 and 2017, respectively, which accounted for less than 0.01% of the total revenue of our Group for the respective years. We do not expect our revenue from business with Tunisia to increase significantly after the Listing.

Based on the advice of our legal advisors which is based on information and assurances provided by our Group, we do not believe that any of our Tunisia business during the Track Record Period and up to the Latest Practicable Period violated any applicable Sanctions.

# Yemen

In 2015, 2016 and 2017, our Group exported medical testing kits to entities in Yemen that were not Designated Persons and our revenue from business with Yemen was approximately RMB0.01 million, RMB0.04 million and RMB0.05 million in 2015, 2016 and 2017, respectively, which accounted for less than 0.01% of the total revenue of our Group for the respective years. We do not expect our revenue from business with Yemen to increase significantly after the Listing.

Based on the advice of our legal advisors which is based on information and assurances provided by our Group, we do not believe that any of our Yemen business during the Track Record Period and up to the Latest Practicable Date violated any applicable Sanctions.

We would continue to carry on business in the Restricted Countries in consideration of the following factors:

(i) We import certain radioisotopes raw materials to manufacture radiopharmaceutical products and radioactive source products from the supplier in Russia, one of the Restricted

Countries. The supplier in Russia is the only or one of limited suppliers of certain radioisotopes raw materials the Company purchased. We may not be able to source certain radioisotopes raw materials with similar quality, price and quantity from other suppliers around the world. Ceasing importation from the supplier in Russia would adversely affect our business operations;

- (ii) During the Track Record Period, the revenue generated from sales to the Restricted Countries was insignificant, representing approximately 0.02%, 0.04% and 0.02%, of the total revenue of the Group, respectively. We do not expect a significant increase in the revenue from the Restricted Countries after the Listing. Neither the Company nor any member of our Group is a Designated Person or a Sectoral Sanctions Target and there was no business with any Designated Person or Sectoral Sanctions Targets during the Track Record Period and up to the Latest Practicable Date; and
- (iii) We have put in place internal control policies and procedures to monitor its exposure to Sanctions. We are of the view that its internal control measures if fully implemented will provide a reasonably effective internal control framework to assist it in identifying and monitoring risks relating to Sanctions.

# **Our Undertakings and Internal Control Procedures**

# Undertakings to the Hong Kong Stock Exchange

We undertake to the Hong Kong Stock Exchange that: (i) we will monitor and regulate the use of the net proceeds of the Global Offering as well as any other funds raised through the Hong Kong Stock Exchange, and ensure that such proceeds and funds are not used for or applied, directly or indirectly, to (a) finance or facilitate any activity or business prohibited by applicable Sanctions, including but not limited to, business with, or for the benefit of, any Sanctioned Country or Designated Person, or any other activity that would be contrary to applicable Sanctions, or (b) pay any damages for terminating or transferring the contracts in connection with any Restricted Country or Designated Person; (ii) we will deposit proceeds from the Global Offering as well as any other funds raised through the Hong Kong Stock Exchange in a bank account segregated from funds used for our business involving Restricted Countries or, if any, Designated Persons; (iii) we have no present intention to engage in any future business that would cause us or the Relevant Persons to violate or become designated under applicable Sanctions, although we may engage in business activities with Targeted Countries or with Sectoral Sanctions Targets to the extent permissible under applicable Sanctions; (iv) we would disclose on the Hong Kong Stock Exchange's and our own websites if we believe that transaction(s) we enter into in connection with Restricted Countries would put ourselves or the Relevant Persons at risk of being designated or in violation of applicable Sanctions; (v) after the Listing, we would disclose in our annual reports and interim reports our efforts on monitoring our exposure to Sanctions-related risks, the status of future business, if any, as well as our intention in connection with our business involving Restricted Countries (excluding business with Targeted Countries or Sectoral Sanctions Targets that is permissible under applicable Sanctions); and (vi) we will continuously monitor and evaluate our business and take measures to comply with the undertakings made to the Hong Kong Stock Exchange and to protect the interests of our Group and our Shareholders by implementing the internal controls described in the following sub-sections. If we breach any of the aforementioned undertakings to the Hong Kong Stock Exchange after the Listing, it is possible that the Hong Kong Stock Exchange may delist our shares.

#### Internal controls

As described in further details below, we have established an overseas risk control committee (the "Committee") which will put in place the internal control policies and procedures to ensure compliance with applicable Sanctions and our undertakings to the Hong Kong Stock Exchange.

Our audit and risk management Board committee is responsible for, amongst others, overseeing our overall implementation of internal control measures in respect of Sanctions matters. To further enhance our existing internal risk control functions, we have established the Committee under the audit and risk management committee. The Committee is responsible to and reports to the audit and risk management committee. The members of the Committee are appointed by the audit and risk management committee and include: (i) a chief Sanctions Compliance Officer ("SCO") with overall responsibility for the implementation and monitoring of the Sanctions and export control compliance policies and procedures; (ii) members from our senior management; (iii) senior members from our relevant departments such as the finance department, the legal department, the investment management department and the international exportation business department; and (iv) a manager responsible for information disclosure. The responsibilities of the Committee include: monitoring and minimizing our exposure to Sanctions- and export controls-related risks, our implementation and monitoring of the related internal control procedures and our compliance with the undertakings we made to the Hong Kong Stock Exchange. The Committee will hold at least two regular meetings each year to monitor our exposure to Sanctions and export controls risks. The Committee will also hold meetings on an ad hoc basis as and when needed.

Under the Committee, we have also set up an overseas risk control and management working group (the "Working Group"), which is headed by our listing investment department and consists of other members from our listing investment department, legal department as well as business managers of our subsidiaries who are involved in our business involving the Restricted Countries.

The Working Group must review and approve all new business opportunities and make sure that such business involves no risks of violating applicable Sanctions or our undertakings to the Hong Kong Stock Exchange. In particular, the Working Group will review the proposed transaction and the underlying transaction documents, and will conduct due diligence on the counterparties to the transaction before authorizing the business unit to proceed to ensure that the transaction complies with all applicable Sanctions and with our undertakings to the Hong Kong Stock Exchange. In particular, the Working Group will: (i) check the names of the counterparties and the names of the ultimate beneficial owners of the counterparties to make sure that such persons are not Designated Persons; (ii) check the names of the end-user(s) of the transaction to make sure that such persons are not Designated Persons; (iii) check to see if the transaction directly or indirectly involves any Restricted Country, including the movement of goods to, from or through any Restricted Country. If this due diligence identifies any Sanctions-related elements, then the Working Group will escalate the transaction to the SCO or external counsel to ensure that the transaction complies with the applicable Sanctions. In addition, the Working Group will state clearly in our contracts that we will terminate a contract if it

Note:

<sup>(1)</sup> The assurances provided by our Group include: (i) representations made by duly authorized representatives of the Company to its legal advisors that the Company's responses to the due diligence questions were accurate and complete to the best of their knowledge; (ii) the Company's confirmation of a detailed set of facts, an extensive set of sanctions-related representations, and assumptions that are the basis of its legal advisors' advice to the Company; (iii) the Company's confirmation of the accuracy and completeness of the transaction information provided for its legal advisors' sanctions analysis; (iv) the Company's undertakings to the Stock Exchange as set out in this prospectus; and (v) the Company's statements in this prospectus as to the implementation of sanctions compliance related internal controls.

would cause us to violate any applicable Sanctions or our undertakings to the Hong Kong Stock Exchange.

The Working Group must review our existing contracts on a regular basis, and if an executed contract is updated or amended, the Working Group must ensure that the business activities carried out under the updated or amended contract would not violate any applicable Sanctions or our undertakings to the Hong Kong Stock Exchange. The company has begun reviewing existing contracts on a regular basis and is in the process of updating or amending contracts as may be needed to reasonably ensure that the business activities to be undertaken under the renewed or amended contracts are not prohibited by any applicable sanctions or otherwise breach the Company's commitments as stated in the disclosure. The Company intends to begin providing sanctions compliance related training, which will start on or about March 15, 2018.

# The Working Group must also:

- (i) ensure that it does not involve any US persons (including our Group's US subsidiaries, affiliates and employees, if any), the US financial system, and (where required) non-US subsidiaries of US companies in its business with Sanctioned Countries or US Designated Persons;
- (ii) ensure that it does not involve any EU persons such as nationals of EU Member States, persons within the EU or entities incorporated or constituted under the law of an EU Member State (including our Group's EU subsidiaries, affiliates and employees, if any) or the EU financial system in its business with (a) EU Designated Persons or (b) Sanctioned or Targeted Countries if such business involves activities which would be prohibited under EU Sanctions;
- (iii) ensure that it does not involve any Australian citizens or Australian registered bodies corporate and bodies corporate owned or controlled by Australian citizens or activities in Australia in its business with (a) Australian Designated Persons or (b) Sanctioned or Targeted Countries if such business involves activities which would be prohibited under Australian Sanctions;
- (iv) monitor new Sanctions laws or any change to the existing laws (particularly with respect to Sanctioned Countries) and seek advice from external legal counsel as necessary to make sure that our business activities do not violate any applicable Sanctions laws;
- (v) update the list of Restricted Countries, Designated Persons, Sectoral Sanctions Targets and any other applicable official Sanctions lists in accordance with changes in Sanctions;
- (vi) conduct internal checks and ensure that our employees who are involved in business in connection with the Restricted Countries understand and comply with our internal control regulations; and
- (vii) keep a list of US- and EU-origin items and technology used in our projects to prevent us from engaging in prohibited exports of products that are subject to US or EU export control laws and US or EU Sanctions to Sanctioned or Targeted Countries and Designated Persons.

The Working Group will provide a quarterly report for the Committee's review, which will include, among others, an updated list of Restricted Countries, Designated Persons, Sectoral Sanctions Targets and a list of projects whose contracts have been reviewed by the legal department.

If any potential Sanctions risk is identified by the Working Group, it will seek advice from reputable external international legal counsel with relevant expertise and experience in Sanctions (the "External Sanctions Counsel"). Based on the advice of the External Sanctions Counsel, the Working Group will report to the Committee, which will then decide whether to continue our existing business or terminate any new business that may involve Sanctions risk. When making such decisions, the major factors or criteria that the Committee would take into consideration include: (i) whether such business constitutes a predominant portion of our business based on the revenue or value of the contract as a percentage of our total revenue; (ii) whether the counterparties to the existing transaction have become subject to any Sanctions based on any changes in Sanctions laws and regulations; (iii) whether the relevant business activities involve any industries or sectors that are subject to any Sanctions based on any changes in Sanctions laws and regulations; and (iv) the potential legal and reputational risk to us of continuing such activities. The Committee would also take into consideration similar factors and criteria when deciding whether to undertake new business opportunities in the Restricted Countries. Under no circumstances will the Committee authorize any transaction that would be prohibited under applicable Sanctions or violate our undertakings to the Hong Kong Stock Exchange.

We will retain External Sanctions Counsel in matters related to Sanctions laws on an ongoing basis. The Committee and the Working Group, advised by our External Sanctions Counsel, will review our internal control policies and procedures with respect to matters related to Sanctions laws on a regular basis and provide us with recommendations and advice when necessary.

The Working Group will invite our External Sanctions Counsel to provide regular training relating to relevant Sanctions laws to our directors, senior management, the Committee, the Working Group and other relevant members from our international business department and subsidiaries who are involved in our business in connection with the Restricted Countries to assist them in evaluating the potential Sanctions risks in our daily operations.

We have also established the export control office (the "Export Control Office") that will report to the Committee. The Export Control Office will ensure compliance with applicable export control regulations, including export control regulations of the PRC, US, EU, UK, Hong Kong and Australia.

Our Directors are of the view that these measures will provide a reasonably adequate and effective internal control framework to assist us in identifying and monitoring any material risk relating to Sanctions so as to protect both our interests and the interests of our Shareholders and Relevant Persons, and our full implementation of these measures would be reasonably designed to comply with our undertakings to the Hong Kong Stock Exchange.

# MARKETING AND PROMOTION

#### **Marketing Channels**

As of December 31, 2017, our sales and marketing team had over 230 staff. In general, each of our manufacturing subsidiaries manages its own sales and marketing team to promote and market its products. We use different marketing and promotion channels including our own sales force, promoters and distributors. A substantial majority of our imaging diagnostic and therapeutic radiopharmaceuticals is sold to hospitals and other medical institutions directly through either the sales forces of our relevant manufacturing subsidiaries or through the marketing and promotion service of promoters. We sell the

rest of our products of pharmaceuticals segment in the PRC to qualified distributors, which then on-sell our products to hospitals and other medical institutions. We generally directly sell products and services at our other segments. We believe that due to the nature of our products, the key factors of our competitiveness centers on product safety, steady and timely supply of products and brand recognition.

As part of our sales services, we provide our promoters or distributors with technical support, including training in the basic knowledge of our products and participating in presentations to potential hospital and medical institution customers. By working with our promoters and distributors, our sales managers are able to provide us with valuable insights into the operations of each promoter and distributor. We have dedicated staff who are assigned to each promoter or distributor and would discuss market trends with them from time to time and obtain feedback from customers. Our staff are also responsible for ensuring that the promoters' or distributor's orders and other requirements are met.

We have established an international marketing development department dedicated to market and promote our radiopharmaceuticals, radioactive source products as well as EPC service of irradiation facilities in Asia and South America in order to increase our overseas market share. Furthermore, we are in the process of consolidating and streamlining our existing sales and marketing resources in order to form an integrated sales platform of our imaging diagnostic and therapeutic radiopharmaceuticals and radioactive source products so as to establish a more dedicated sales and marketing force and an effective sales management system.

# **Academic Marketing**

We adopt an academic research-oriented marketing approach, particularly with respect to our core pharmaceuticals business. Our sales and marketing efforts are characterized by a strong emphasis on academic promotion.

We regularly organize and participate in various academic conferences, seminars and symposia, which include large-scale national and provincial conferences, as well as smaller events tailored for specific hospital departments. During these conferences, we also sponsor satellite events that focus on the therapeutic areas related to our pharmaceuticals. We invite leading experts in these therapeutic areas to speak on the latest developments and share their experience. Through these academic marketing efforts, we aim to educate doctors and other medical professionals on our products and reinforce our academic recognition and brand awareness among medical experts.

We maintain long-term cooperative relationships with national academic associations, such as China Isotopes & Radiation Association and China Medicine Association. We believe that our relationships with medical experts and industry associations help raise our profile, enhance awareness of our products in the nuclear medicine community and among patients, and provide us with valuable clinical data to improve our products, which in turn help us more effectively market and sell our products. Furthermore, since 2012, together with Chinese Society of Nuclear Medicine, we have provided technical and practical trainings on the treatment of thyroid-related diseases using iodine-131 radioisotope to physicians at local hospitals and other medical institutions which are equipped with basic imaging diagnostic and therapeutic radiopharmaceuticals facilities. We believe such trainings improve the essential knowledge, skills and abilities required of medical professionals and the quality of imaging diagnostic and therapeutic radiopharmaceuticals services at the grass-root level in China. We entered into radioisotopes diagnosis and therapy model base cooperation agreement with the Chinese Society of Nuclear Medicine to jointly select local hospital candidates to provide technical and

practical training with respect to the treatment of thyroid-related diseases using iodine-131. From 2012 to 2017, we have provided such technical and practical trainings to a total of 35 hospitals and other medical institutions.

#### **EXPANSION PLAN**

As part of our business strategies, we are in the process of or plan to conduct the following major infrastructure expansion projects. As advised by our PRC Legal Advisors, we have obtained all necessary approval or licenses for the current development status of each of our existing expansion projects. We also plan to conduct research and development on new products and technologies. See "Business — Research and Development" in this prospectus for further details.

# **Xianghe Base and Chengdu Base**

We plan to build two new modern manufacturing and research and development bases in Xianghe, Hebei province and Chengdu, Sichuan province in order to enhance our development and manufacturing capabilities and to meet the requirements for standardized and large-scale operation for our radiopharmaceuticals for diagnostic imaging and therapeutic uses. We will utilize Xianghe Base and Chengdu Base to carry out the research and development and manufacturing of the imaging diagnostic and therapeutic radiopharmaceuticals as disclosed in "Business — Research and Development" in this prospectus. The establishment of new manufacturing and research and development bases is necessary for us to materialize our plan to research, develop and manufacture such new imaging diagnostic and therapeutic radiopharmaceuticals. Furthermore, according to Frost & Sullivan, the PRC market of imaging diagnostic and therapeutic radiopharmaceuticals reached RMB2,506.0 million in 2017. The market is expected to continue to grow with a CAGR of 21.0% from 2017 to 2022 and reach RMB6,512.2 million in 2022. Therefore, we believe there is sufficient demand of our imaging diagnostic and therapeutic radiopharmaceuticals.

The key imaging diagnostic and therapeutic radiopharmaceuticals to be produced by these two bases include sodium iodine-131 capsules for diagnosis and treatment (碘[ $^{131}$ I]化鈉診斷及治療膠囊), 131I-MIBG injection (間碘[ $^{131}$ I]苄胍注射液), sodium phosphate-32 oral solution (磷[ $^{32}$ P]酸鈉鹽口服溶液), samarium-153 lexidronam injection (來昔決南釤[ $^{153}$ Sm]注射液), technetium-99 methylene diphosphonate injections (鍀[ $^{99}$ Tc]亞甲基二磷酸鹽注射液), fluorine-18 labeled radiopharmaceuticals (氟[ $^{18}$ F]標記藥物) in addition to our current major imaging diagnostic and therapeutic radiopharmaceuticals.

The following table illustrates details of the two bases:

	Total investment <sup>(1)</sup> (RMB in million)	Investment amount as of February 28, 2018 <sup>(2)</sup> (RMB in million)	Timeline of construction plans	Status as of the Latest Practicable Date	Expected time of the commencement of commercial production	Source of funding
Xianghe Base	717.8	0.8	Expected to commence construction in 2018 and obtain completion and acceptance approval and commence trial operation in the second half of 2022	Approved by the Board to initiate the project	the second half of 2024	Net proceeds from the Global Offering and internal resources

	Total investment <sup>(1)</sup> (RMB in million)	Investment amount as of February 28, 2018 <sup>(2)</sup> (RMB in million)	Timeline of construction plans	Status as of the Latest Practicable Date	Expected time of the commencement of commercial production	Source of funding
Chengdu Base	171.5	48.6	Commenced construction in January 2017 and expected to complete the main structure in the second half of 2017	Under construction	the first half of 2020	Net proceeds from the Global Offering and internal resources

Notes:

We expect that our Xianghe Base will commence construction in the second half of 2018, obtain completion and acceptance of the project and commence trial operation in the second half of 2022, and commence commercial production in the second half of 2023 by which time our annual design capacity of sodium iodine-131 oral solution and sodium iodine-131 capsule is expected to reach 40,000 Ci; our annual design capacity of molybdenum-99/technetium-99m generator is expected to reach 100,000 Ci; our annual design capacity of sodium phosphate-32 oral solution (隣[32P]酸鈉鹽□服溶液) and samarium-153 lexidronam injections (來昔決南釤[153Sm]注射液) is expected to reach 1,500 Ci; our annual design capacity of iodine-125 sealed source is expected to reach 7,500 Ci; our annual design capacity of fluorine-18-FDG injection (氟[18F]脱氧葡糖注射液) is expected to reach 25,000 Ci; our annual design capacity of technetium-99 methylene diphosphonate injections is expected to reach 5.0 million vials; and our annual design capacity of technetium-99m labeled freeze-dried kit (鍀[99mTc]標記凍幹藥盒) is expected to reach 130,000 kits. In addition, we will also reserve certain production lines and capacity development space for any new product varieties approved for launch.

Chengdu Base has commenced construction in January 2017 and is expected to commence the commercial production in January 2020. By December 2020, our annual design capacity of sodium iodine-131 oral solution is expected to reach 15,000 Ci; our annual design capacity of strontium-89 chloride injection is expected to reach 200 Ci; and our annual design capacity of sodium iodohippurate-131 injection (鄰碘[131]]馬尿酸鈉注射液) is expected to reach 20 Ci.

41.7% of net proceeds from the Global Offering would be invested in these two manufacturing and research and development bases. We expect the payback period would approximately be ten years and six years for Xianghe Base and Chengdu Base, respectively, on the basis that (i) no material adverse change to our selling price of our major imaging diagnostic and therapeutic radiopharmaceuticals; (ii) no material deviation from our cost level, (iii) the construction of the new production facilities can be completed as scheduled; (iv) no material adverse change to the PRC radiopharmaceuticals market and (v) the net proceeds from the Global Offering can be utilized as planned.

# Manufacturing Subsidiaries of Technetium-99m Labeled Injections and Fluorine-18-FDG Injection

Owing to the relatively short half-life of the radioisotopes in technetium-99m labeled injections and fluorine-18-FDG injection, the manufacturing facilities of such products shall be located in close

<sup>(1)</sup> The investment costs are shared between the other shareholders and us in proportion to the shareholding percentage in the relevant subsidiaries which conduct the relevant projects. The total investments herein only include the investment which we are responsible for, whilst the amount of investment from the other shareholders of the relevant subsidiaries is excluded.

<sup>(2)</sup> We had invested RMB48.6 million as of February 28, 2018 in connection with the acquisition of land use rights, construction of production facilities and purchase of equipment for Chengdu Base.

proximity to the hospital and other medical institution customers. During the Track Record Period, the utilization rates of the current production facilities of technetium-99m labeled injections and fluorine-18-FDG injection were relatively low because the use of such products is limited and hospitals and other medical institutions order our products when there are patients need such products for diagnosis purpose. We are only able to serve the demand of hospitals and other medical institutions in close proximity to our production facilities in a particular location. Therefore, in order to timely meet the increasing demand in the population centers in China, we intend to establish 26 new manufacturing subsidiaries to produce and distribute technetium-99m labeled injections (舞[99mTc]標記注射液) and fluorine-18-FDG injection (氟[18F]脱氧葡糖注射液) nationwide in China with manufacturing facilities to be located close to end customers.

All these new manufacturing and distribution facilities will comply with the GMP standards. As of the Latest Practicable Date, 11 facilities were at the planning stage, eight facilities were at the feasibility study stage, two facilities completed feasibility study pending construction, and five facilities were under various stages of construction and decoration. We expect such five facilities under construction and decoration would commence commercial production between second half 2017 and first half of 2019. We expect that all these manufacturing facilities would commence commercial production between the second half of 2017 and the second half of 2023. Our annual design capacity of fluorine-18-FDG injection (氟[18F]脱氧葡糖注射液) is expected to reach 42,000 Ci and our annual design capacity of technetium-99m labeled injections (鍀[99mTc]標記注射液) is expected to reach 2.5 million vials after all such facilities are put into operation.

These manufacturing and distribution subsidiaries are located in 25 cities which are primarily capital cities of provinces and autonomous regions and other first-tier or second-tier cities in China, namely Wuhan, Changsha, Chengdu, Xuzhou, Hengdian, Nanning, Taiyuan, Hefei, Jinan, Nanjing, Shantou, Xi'an, Changchun, Kunming, Nanchang, Qingdao, Shijiazhuang, Harbin, Fuzhou, Dalian, Lanzhou, Hangzhou, Guizhou and one city in Hainan province and one city in Xinjiang Uyghur Autonomous Region. As of the Latest Practicable Date, we had not determined which city in Hainan province and Xinjiang Uyghur Autonomous Region to establish the relevant manufacturing subsidiaries.

We selected these cities as locations of our 26 manufacturing subsidiaries because we believe the market demand of imaging diagnostic and therapeutic radiopharmaceuticals in these cities are relatively higher than the other cities in China on the basis that (i) the first- and second-tier cities are population centers in China with larger patient base compared to other cities in China; (ii) the hospital and medical institutions in the first- and second-tier cities generally have established nuclear medicine department, well-trained nuclear physicians and better nuclear medicine facilities which provide the basic infrastructure to administer the radiopharmaceuticals; (iii) there is an increasing population with cancers and other chronic diseases in China which entails increasing demand of our imaging diagnostic and therapeutic radiopharmaceuticals; and (iv) according to Frost & Sullivan, the market size of fluorine-18-FDG injection and technetium-99m labeled injections are expected to increase from RMB203.9 million and RMB146.5 million in 2017, with a CAGR of 24.3% and 23.0%, to RMB604.4 million and RMB412.2 million in 2022, respectively. Furthermore, according to Frost & Sullivan, capital cities, first-tier and second-tier cities entail higher market demand of radiopharmaceutical products than the other cities in China. Our goal is to materialize the intended increase in our production capability and the extended distribution coverage to better serve customers situated within close proximity of these new manufacturing facilities.

We will fund the investment of 22 of these facilities with our internal sources. We will fund the remaining four manufacturing facilities with internal resources and part of the net proceeds from the Global Offering. The total investment of these four manufacturing subsidiaries would be RMB104.4 million. As of February 28, 2018, we had invested RMB48.4 million in connection with the acquisition of land use right, construction of production facilities and purchase of equipment and machinery of these manufacturing subsidiaries. We expect the payback period would be approximately six to ten years with respect to our new manufacturing subsidiaries on the basis that (i) no material adverse change to our selling price of our technetium-99m labeled injections and fluorine-18-FDG injection; (ii) no material deviation from our cost level, (iii) the construction of the new manufacturing facilities can be completed as scheduled; (iv) no material adverse change to the PRC radiopharmaceuticals market and (v) the net proceeds from the Global Offering can be utilized as planned.

The following table sets forth the annual design capacity as of December 31, 2017 and the expected annual design capacity of our major imaging diagnostic and therapeutic radiopharmaceuticals after the commencement of commercial production of Xianghe Base, Chengdu Base and 26 manufacturing subsidiaries:

	Annual Design Capacity as of December 31, 2017	<b>Expected Annual Design Capacity</b>	% increase
Fluorine-18-FDG injection (Ci)	11,600	78,600	577.6%
Molybdenum-99/technetium-99m generator (Ci)	28,000	128,000	357.1%
Technetium-99m labeled injections (vial)	567,000	3,067,000	440.9%
Sodium Iodine-131 oral solution (Ci)	17,000	72,000(1)	323.5%
Iodine-125 sealed source (unit)	350,000	1,250,000	257.1%
Strontium-89 chloride injection (vial)	35,000	35,200	0.6%

Note:

Although we experienced relatively low utilization rate of our current productions facilities of molybdenum-99/technetium-99m generator, we believe that the expansion of the production capacity of molybdenum-99/technetium-99m generator as a result of the establishment of Xianghe Base is justified because (i) the expected increasing demand and growth rate of molybdenum-99/technetium-99m generator in China. According to Frost & Sullivan, the market size of molybdenum-99/technetium-99m generator reached RMB157.8 million in 2017 and is expected to grow with a CAGR of 22.7% during the period of 2017 to 2022 and reach RMB438.6 million in 2022; (ii) our expanded capacity of molybdenum-99/technetium-99m generators will not only supply to our hospital and medical institution customers but also to our contemplated nationwide manufacturing facilities to produce technetium-99m labeled injections; (iii) the strategic consideration of establishment of a new production base with sufficient production capacity in consideration of our potential growth as the leading PRC isotopes technology application company in the future.

Our planned expansion of our manufacturing capacity of other major imaging diagnostic and therapeutic radiopharmaceuticals is in line with the increasing market demand of our major imaging diagnostic and therapeutic radiopharmaceuticals in China as well. According to Frost & Sullivan, the market size of fluorine-18-FDG injection and technetium-99m labeled injections reached RMB203.9 million and RMB146.5 million in 2017, respectively. The markets are expected to grow with a CAGR of 24.3% and 23.0% during the period of 2017 to 2022 and reach RMB604.4 million and RMB412.2 million in 2022, respectively. The iodine-125 sealed source market reached RMB939.8 million in 2017 and is expected to grow with a CAGR of 21.1% during the period of 2017 to 2022 and reach RMB2,447.0 million in 2022. The market size of sodium iodine-131 oral solution reached RMB284.3

<sup>(1)</sup> Included the expected annual design capacity of sodium iodine-131 capsule which would be manufactured at Xianghe Base.

million in 2017 and is expected to grow with a CAGR of 22.2% during the period of 2017 to 2022 and reach RMB773.9 million in 2022. The strontium-89 chloride injection market reached RMB87.2 million in 2017 and is expected to grow with a CAGR of 21.3% during the period of 2017 to 2022 and reach RMB229.4 million in 2022.

# **UBT Kits and Analyzers Production Bases**

We intend to establish new production bases in Shenzhen, Guangdong province and Tongcheng, Anhui province to expand our existing manufacturing capacity of UBT kits and analyzers. The current production facilities of Shenzhen Headway are unable to meet the production demand of our UBT kits and analyzers. The total investment in the establishment of these production bases would be RMB156.2 million. As of February 28, 2018, we had invested RMB69.1 million in connection with the purchase of land use right and construction of production facilities for the new production bases in Shenzhen and Tongcheng.

As of the Latest Practicable Date, our new production base in Shenzhen and Tongcheng were under construction. The new production base in Shenzhen completed main structure construction in November 2017 and commenced some ancillary measures construction. Our new production base in Tongcheng started construction in early 2018 and is expected to complete main structure construction in August 2018 and commence commercial production in December 2018. Our designed annual production capacity of UBT kits and analyzers is expected to increase by 117.4% and 29.0%, reaching 50.0 million kits and 8,000 units, respectively, after the commencement of commercial production of our two new production bases.

5.9% of net proceeds from the Global Offering would be invested in the establishment of the new production bases of UBT kits and analyzers. We expect the payback period for both production bases would be approximately 5.4 years on the basis that (i) no material adverse change to our selling price of our UBT kits and analyzers; (ii) no material deviation from our cost level, (iii) the construction of the new production bases can be completed as scheduled; (iv) no material adverse change to the PRC UBT products market and (iv) the net proceeds from the Global Offering can be utilized as planned.

# **Management of Planned Expansion Projects**

We have done detailed feasibility research on the production management, sourcing of raw materials and labor, and prospects with respect to each of our expansion projects. We engaged qualified institutions to prepare and issue feasibility study report as an important part of feasibility research of each of our expansion projects. In each of feasibility study report, there are detailed analysis and evaluation of the site selection, costs of production, raw materials sourcing, recruiting of qualified personnel and trainings, and market demand and prospects. We will only approve the feasibility study report and determine to carry out the expansion projects if we are able to fully satisfy the requirements set forth in the feasibility study reports.

In particular, with respect to the daily operation of our Xianghe Base, Chengdu Base, manufacturing facilities of technetium-99m labeled injections and fluorine-18-FDG Injection, and two new UBT products bases, we expect that we will need to increase approximately 900 employees for manufacturing, quality control, sales and marketing, administrative management and other functions. We believe we will be able to recruit sufficient number of personnel to meet the requirements of

staffing for these new manufacturing bases and facilities because (i) we would need to recruit new employees gradually in the next five years according to the schedule of commencement of operation of each expansion projects and (ii) we need employees with education background of various disciplines such as pharmaceuticals, chemistry, biology, physics and engineering and the academic institutions in China supplies sufficient number of graduates specializing in these majors each year. We will leverage on our advanced manufacturing expertise and research and development capabilities to provide necessary professional trainings to new employees so that we will have qualified employees with adequate qualification and experience at these new manufacturing bases and facilities. During the Track Record Period, we maintained relatively stable staff costs compared to the growth rate of our total revenue. Therefore, we believe that we are able to manage the increased staff cost as a result of the additional employees for the new manufacturing bases and facilities.

We import radioisotopes from overseas suppliers for our major imaging diagnostic and therapeutic radiopharmaceuticals. We will continue to work with such overseas suppliers as the sources of radioisotopes to be used in our new manufacturing bases and facilities. We believe we are able to secure stable raw materials supply to satisfy the expansion of the production capacity because (i) we have maintained good relationship and regular contact with our major suppliers; (ii) based on communication with our certain major suppliers of radioisotopes, their production capacity is able to meet the gradual increase of our purchase volume of raw materials in the next five years according to the schedule of commencement of operation of each expansion projects; and (iii) our actual production volume at our new production facilities would gradually increase after commencement of operation. We believe that we will be aware of any material shortfall of supply of radioisotopes due to maintenance suspension of nuclear reactors of our suppliers well in advance to minimize any material adverse impact on our business operations. We also will ensure that all suppliers satisfy our evolution and assessment criteria. Please see "Business — Quality Control — Quality Control of Raw Materials" for details of our quality control measures of procuring raw materials suppliers. According to Frost & Sullivan, the price of our major radioisotopes raw materials is projected to increase steadily from 2017 to 2022. We believe we are able to manage such increase in the cost of raw materials which would not have material adverse impact on our results of operations and financial conditions. PRC isotopes medical application market is expected to increase significantly from RMB4,382.0 million in 2017 to RMB10,634.1 million in 2022, with a CAGR of 19.4%, according to Frost & Sullivan. As the leading isotopes medical application company in China, we believe we are able to capitalize on the increasing market size in the future to realize business growth.

Alongside with the expanded production capacity, we expect that we will continue to cooperate with the current promoters and distributors with good track record performance to further penetrate imaging diagnostic and therapeutic radiopharmaceuticals and UBT products market in China. We will cautiously engage new promoters and distributors which are able to satisfy our selection requirements. Please see "Business — Pharmaceuticals — Sales and Customers of Pharmaceuticals" for our selection requirements for promoter and distributor. With respect to in-house sales force, we will recruit more experienced sales and marketing talent and provide them with more systematic training on our products and services. As discussed above, we maintained relatively stable staff cost level while realized increasing revenue and profit during the Track Record Period. Therefore, we believe that we are able to manage the increased cost as result of the expanded in-house sales force. We are also in the process of consolidating and streamlining our existing sales and marketing resources in order to form an integrated sales platform so as to establish a more dedicated sale and marketing force and an effective sales management system. We believe we are able to expand the sales network because (i) we leverage on our technical expertise and experience to provide continued technical trainings to promoters and

distributors so that they could grow their business organically and, in turn, bring their interests in line with our business development. As a result, we are able to retain or attract promoters and distributors with good track record; (ii) the receipt of on-going trainings on the technical expertise and the industry knowledge could equip promoters and distributors to better serve our customers and market our products which, in turn, could expand the end customer base; and (iii) the establishment of nationwide manufacturing facilities of technetium-99m labeled injections and fluorine-18-FDG injection could facilitate the usage of the relevant products by the hospitals and medical institutions in the cities where the new facilities are located which could, in turn, increase our end customer base.

Based on the above, we believe we are able to manage the production, sourcing of raw materials and qualified personnel and maintain effective sales network in consideration of the increased capacity after the commencement of operation of our expansion projects.

#### **INVENTORY MANAGEMENT**

We actively manage and maintain our inventories to ensure cost-efficiency, quality control and the timely manufacturing, distribution and sale of our products. In 2015, 2016 and 2017, our average inventory turnover days were 100.6, 108.1 and 113.3 days, respectively.

Our inventory of pharmaceuticals and radioactive source products segments primarily includes raw materials, work-in-progress and finished products. We employ information systems to track inventory levels as well as to ensure adequate levels of raw materials and finished products. Our image diagnostic and therapeutic radiopharmaceuticals generally have a shelf-life ranging from six hours to two months. Our UBT kits and analyzers generally have a shelf-life ranging from 12 to 24 months and from eight to ten years, respectively. Our in vitro immunoassay diagnostic reagents and kits generally have a shelf-life ranging from one to 18 months. We have an inventory provisioning method to value our inventories and to write off inventories when they become obsolete or damaged, or when their market value is below their carrying costs. We did not have significant write-offs for obsolete inventories in 2015, 2016 and 2017. For more details, see "Financial Information — Net Current Assets — Inventories" in this prospectus.

There is no material inventory for our irradiation and independent clinical laboratory services segments.

# **QUALITY CONTROL**

As of December 31, 2017 our quality control team consisted of 155 dedicated employees, of whom approximately 78.0% held bachelor or higher degrees in related fields. As of December 31, 2017 our quality control team members on average had over ten years of industry experience. We have also obtained the quality management system certification in connection with the manufacturing of our imaging diagnostic and therapeutic radiopharmaceuticals and radioactive source products.

#### **Quality Control of Raw Materials**

We have our own independent quality control system and devote significant attention to quality control of the design, manufacturing and testing of our products. Our strict product quality control starts at the research and development stage. We have established detailed quality control procedures guiding our internal production and external purchase of raw materials used in the manufacturing of

our products. We have established detailed internal rules governing the selection of raw material suppliers and raw material quality control. We purchase raw materials only from suppliers whose business qualifications and product quality we have verified. We select suppliers based on a variety of factors including qualifications, business reputation, production scale, technological strengths, quality management capabilities, after-sales services and price. After initial screening by our procurement department, we request product samples from suppliers for examination by our quality control team, whose report provides an important basis for our supplier selection decisions. In addition, we classify our raw materials into three categories in terms of their importance for our production. For the most important category of raw materials, we conduct at least one on-site quality audit at our facilities before admission to our warehouses and we require suppliers to execute a quality guarantee agreement (質量保證協議) with us.

# **Quality Control of Work in Progress**

Our quality control team is responsible for ensuring that our manufacturing processes conform with applicable national standards including GMP standards. We have specific operating rules for production areas with varying degrees of safety requirements. After completion of each production process, we perform cleaning procedures to prevent contamination, and the quality control team verifies that the production line has been properly cleaned before we proceed to the next production process. All of our cleaning procedures have been tested before their implementation. We have established a comprehensive set of standard operating procedures governing various aspects of production, such as facilities cleaning, water purification and waste disposal.

# **Quality Control of Finished Products**

Before we deliver our final products to customers, our quality assurance team conducts quality assessment of each batch of products to ensure that they have been produced in accordance with the applicable national standards including GMP requirements, approved production processes and national standards of particular products. Authorized quality control personnel inspects the documentation relating to the quality of a product, including its batch records, laboratory control records, production process records and other information that may impact on product quality to confirm that all necessary examinations have been conducted with satisfactory results. Only the final products that have fulfilled all testing requirements can be released and sold to the market.

# RESEARCH AND DEVELOPMENT

We believe our research and development is the cornerstone of our long-term competitiveness, as well as our future growth and development. Our research and development activities focus on developing new products, enhancing the safety and efficacy of our existing products and refining production techniques. We carefully select our research and development programs based on market analysis and our industry expertise, with a focus on providing pharmaceuticals to address the unmet medical needs across various therapeutic areas in the PRC. Generally, in identifying and selecting product candidates for development, we focus on those that are for diagnosis and treatment of diseases such as thyroid cancer, neuroendocrine tumor, prostate cancer, pheochromocytoma and neuroblastoma and orthopedic diseases as well as nervous system degenerative diseases. We conduct research and development activities primarily through our in-house research and development team. For the years ended December 31, 2015, 2016 and 2017, we incurred research and development expenses (excluding amortization cost) of RMB44.6 million, RMB58.7 million and RMB73.5 million, respectively. Our team collaborate from time to time with external research and development partners.

# **In-house Research and Development**

As of December 31, 2017, our research and development team comprised 168 technical staff. Of these 168 staff, approximately 71.0% hold bachelor or higher degrees in pharmaceuticals, chemistry, biology, physics and engineering disciplines, and more than half have on average over five years of related industry experience. For research and development project, we typically assign dedicated staff who are responsible for specifying research direction after understanding the needs of the relevant market segments, coordinating and managing product research and development projects for collaborations among our different manufacturing subsidiaries and with external research partners, and conducting market analysis and research primarily for the upgrade of existing products. Over the years, we have established an integrated research and development process from feasibility study, project setting, project initiation, pre-clinical research, clinical trials and regulatory registration to, ultimately, product commercialization.

All the products we currently manufacture have been developed in-house. We have also developed several patented products and production processes, which maximize production efficiency and safety. Our research and development capabilities are well recognized in our industry and by the PRC government. Our major manufacturing subsidiaries have been recognized as "High and New Technology Enterprise" consecutively from 2015 to 2017, namely HTA, BNIBT, and Headway. During the Track Record Period, we recognized income of government grants of RMB4.6 million, RMB7.3 million and RMB9.0 million, respectively, from various levels of the PRC government authorities for funding our research and development projects and were awarded for our contribution in connection with the isotope and irradiation technology fields. These government grants demonstrated and recognized our proven research and development capabilities.

#### **Collaboration with Research Partners**

We collaborate with third-party research institutions and universities to jointly carry out research and development activities, as well as to enhance our own research and development capabilities. As of the Latest Practicable Date, we entered into framework agreements with third-party research institutions and universities with respect to research and development of imaging diagnostic and radiopharmaceuticals. We will enter into separate cooperation agreement with research partners if we endeavor to conduct specific research and development projects to provide for the cost sharing and rights to the intellectual properties arrangements. Generally, we select our research and development partners based on their reputation and research and development capabilities in the relevant academic or industry areas.

# **Research and Development Process**

We are in the process of research and development of various imaging diagnostic and radiopharmaceuticals. Each of our radiopharmaceuticals for imaging diagnostic and therapeutic purposes must be approved by our internal evaluation team which is made up of senior managers from various internal departments. Prior to initiating a research project, our research and development team performs a thorough market analysis to determine future trends, market preferences and industry research directions, analyzing related intellectual properties and consulting with research institutions and academic bodies before commencing any research and development projects. We review feasibility studies on product candidates before making final decisions on whether to carry out a new product development project.

Our research, development and commercialization of a new radiopharmaceutical for imaging diagnostic and therapeutic purposes, often involves the following stages:

<b>Development Stage</b>	Activities	Timing
Pre-clinical Research	<ul> <li>Initiate the research project, prepare feasibility report of research project and implement the plan for research and development;</li> </ul>	Approximately three to four years
	<ul> <li>Undertake experimental researches on chemical synthesis of pharmaceuticals, radiolabeling, quality control and in vitro stability;</li> </ul>	
	<ul> <li>Undertake animal studies on pharmacokinetics and safety of radiopharmaceuticals;</li> </ul>	
	<ul> <li>Undertake experimental research on the compatibility of packaging materials with radiopharmaceuticals; and</li> </ul>	
	<ul> <li>Develop pilot scale manufacturing process for radiopharmaceuticals.</li> </ul>	
Clinical Trial Application	<ul> <li>Submit required documents to the relevant provincial food and drug administration. The provincial food and drug administration will perform an on-site examination before submitting all the required materials to the CFDA, which will further review the documents and test the sample products;</li> </ul>	Approximately two years
	<ul> <li>Submit a draft clinical trial program to the CFDA for the application of the clinical trials; and</li> </ul>	
	Approval by CFDA of the commencement of clinical trials.	
Clinical Trials	<ul> <li>Phase I: preliminary trial of clinical pharmacology and human safety evaluation studies. The primary objective is to observe the pharmacokinetics and the tolerance level of the human body to the new medicine as a basis for ascertaining the appropriate delivery methods or strength;</li> </ul>	Approximately two to three years
	<ul> <li>Phase II: preliminary exploration on the efficacy of radiopharmaceuticals. The purpose is to assess the preliminary efficacy and safety of the new radiopharmaceuticals on patients and to provide the basis for designing strength tests in phase III; and</li> </ul>	
	<ul> <li>Phase III: confirmation of the efficacy of radiopharmaceuticals. The objective is to further verify the efficacy and safety of the new radiopharmaceuticals on patients, to evaluate the benefits and risks and finally to provide sufficient experimental evidence to support the application for registration of the new radiopharmaceuticals.</li> </ul>	
New Drug Application	<ul> <li>Submit documents relating to pre-clinical and clinical trials to the provincial food and drug administration, which will perform on-site inspections on the research and development and clinical trials and then submit the related documents to the CFDA for further review; and</li> </ul>	Approximately one to two years
	<ul> <li>On-site inspection by the CFDA on three consecutive batches of samples of manufactured at the production facilities.</li> </ul>	
Launch	Review by the CFDA on the application documents and all data;	Approximately 18 months
	<ul> <li>Grant of GMP certificate and the pharmaceuticals production permit by the CFDA; and</li> </ul>	
	Commencement of mass manufacturing.	

# **Product Candidates under Development**

Innovation and continued enhancement of existing products through our research and development operations are important to our business. As of the Latest Practicable Date, we had nine imaging diagnostic and therapeutic radiopharmaceuticals under research and development, of which one radiopharmaceutical is ready for production pending approval (i.e. sodium iodine-131 capsule for therapeutic purpose), one radiopharmaceutical at stage of clinical trials (i.e. iodine-131-MIBG injection), three imaging diagnostic and therapeutic radiopharmaceuticals (i.e. sodium fluorine-18 injection, palladium-103 sealed source, and technetium-99 methylene diphosphonate injection) pending application for clinical trials and four imaging diagnostic and therapeutic radiopharmaceuticals under various stages of research and development. In addition, we also plan to engage in the research and development of various imaging diagnostic and therapeutic radiopharmaceuticals, raw materials of radioactive source product, medical radioisotopes, UBT products and related raw materials and in vitro diagnostic reagents and related raw materials. The total investment of our all research and development projects are RMB412.5 million. We will fund our research and development projects with internal resources and part of the net proceeds of the Global Offering. As of April 30, 2018, we had invested RMB69.8 million.

The following table sets forth the key data about our product candidates and other research and development projects as of the Latest Practicable Date:

# Imaging diagnostic and therapeutic radiopharmaceuticals

Product candidate	Indication	Status of research and development	Research and development period before clinic trial application	Total investment <sup>(1)</sup> (RMB in millions)	Investment amount as of April 30, 2018 <sup>(1)</sup> (RMB in millions)	Source of fund
Sodium iodine- 123 capsule	Diagnostic purposes	Approved by the Board to initiate the project	2017-2019	6.6	Nil	Net proceeds of the Global Offering
Iodine-123-FP- CIT and iodine- 123-MIBG injections	123I-FP-CIT is used for diagnosis of Parkinsonism, while 123I-MIBG is used for myocardial imaging and diagnosis of pheochromocytoma and glioblastoma multiforme	Approved by the Board to initiate the project	2017-2021	9.8	Nil	Net proceeds of the Global Offering
Palladium-103 sealed source	Treatment of tumor; complementary to iodine-125 sealed source	Pending application for clinical trials	2016-2020	13.3	4.3	Net proceeds of the Global Offering and internal resource
Gallium-68- DOTATATE	Diagnosis of neuroendocrine tumor	Approved by the Board to initiate the project	2016-2019	6.8	Nil	Net proceeds of the Global Offering
Gallium- 68-PSMA	Diagnosis of prostate cancer	Approved by the Board to initiate the project	2016-2019	1.1	Nil	Net proceeds of the Global Offering
Lutetium-177- DOTATATE	Treatment of neuroendocrine tumor	Approved by the Board to initiate the project	2016-2020	16.3	Nil	Net proceeds of the Global Offering

Product candidate	Indication	Status of research and development	Research and development period before clinic trial application	Total investment <sup>(1)</sup> (RMB in millions)	Investment amount as of April 30, 2018 <sup>(1)</sup> (RMB in millions)	Source of fund
Fluorine-18-FCH injections	Diagnosis of prostate cancer	Approved by the Board to initiate the project	2016-2018	5.8	0.3	Net proceeds of the Global Offering and internal resource
Sodium iodine-131 capsule and iodine-131- MIBG injection	Diagnosis and treatment of thyroid tumor; diagnosis of pheochromocytoma and glioblastoma multiforme.	Sodium iodine-131 capsule is pending approval for production; iodine-131- MIBG injection is in clinical research	2014-2020	22.6	12.1	Net proceeds of the Global Offering and internal resource
Sodium fluorine-18 injection	Diagnosis of bone tumors	In research and development before clinical trials	2014-2018	5.4	4.9	Net proceeds of the Global Offering and the internal resource
Technetium-99 methylene diphosphonate injection	Treatment of rheumatoid arthritis	In research and development before clinical trials	2014-2019	8.8	6.9	Net proceeds of the Global Offering and the internal resource

Note:

# UBT kits and analyzers

Product candidate	Contents of research and development	Status of product development	Research and development period	Total investment <sup>(1)</sup> (RMB in millions)	Investment amount as of April 30, 2018 <sup>(1)</sup> (RMB in millions)	Source of fund
Research and development of solid scintillator sampling technology and products	To complete the research and development of eco-friendly and easy-to-use solid scintillator sampling products.	Approved by the Board to initiate the project	2016-2020	10.8	0.03	Net proceeds of the Global Offering and the internal resource
Research and development of high enriched carbon-13 monoxide	To master the technology of producing high enriched carbon-13 monoxide gas and construct a production line of carbon-13 monoxide gas with product quality meeting the requirements for production of carbon-13 urea.	Approved by the Board to initiate the project	2016-2020	89.5	0.03	Net proceeds of the Global Offering and the internal resource

<sup>(1)</sup> The investment costs are shared between the other shareholders and us in proportion to the shareholding percentage in the relevant subsidiaries which conduct the specific projects. The total investment and the amount invested herein only include the investment which we are responsible for, whilst the amount of investment from the other shareholders of the relevant subsidiaries is excluded.

Product candidate	Contents of research and development	Status of product development	Research and development period	Total investment <sup>(1)</sup> (RMB in millions)	Investment amount as of April 30, 2018 <sup>(1)</sup> (RMB in millions)	Source of fund
Research and development of photosensitive pharmaceuticals used for photodynamic therapy	To complete the research and development of new photosensitive pharmaceuticals.	Approved by the Board to initiate the project	2016-2019	16.7	nil	Net proceeds of the Global Offering and the internal resource
Research and development of the relevant in vitro diagnostic reagents for the diagnosis of helicobacter pylori	To develop the relevant in vitro diagnostic reagents for the diagnosis of helicobacter Pylori and establish a large-scale production line.	Approved by the Board to initiate the project	2016-2020	7.0	nil	Net proceeds of the Global Offering
Research and development of carbon-14 labeled products	To complete the development of urgently needed carbon-14 labeled compounds and establish a carbon-14 labeling laboratory so as to meet the needs for the use of carbon-14 labeled compounds.	Approved by the Board to initiate the project	2017-2020	4.8	nil	Net proceeds of the Global Offering

Note:

#### Radioactive source products

In order to produce cobalt-60 for medical applications domestically, in August 2016 and January 2017, we entered into long-term cooperation agreements with Qinshan No.3 Nuclear Power, Shanghai Nuclear Engineering Research and Design Institute and China North Nuclear Fuel to kick start the research and development of commercial production of cobalt-60 for medical applications. The total investment of such project is RMB54.2 million. As of April 30, 2018, we have invested RMB14.5 million in connection with the research and development of design, manufacturing, safety analysis and processing technologies of adjustment rod.

We entered into the following service contracts:

● Medical cobalt control rod manufacturing and technology service (醫用鈷調節棒組件生產技術服務長期合作協定) with China North Nuclear Fuel with a term of 15 years, pursuant to which we agreed to purchase medical cobalt control rods from China North Nuclear Fuel;

<sup>(1)</sup> The investment costs are shared between the other shareholders and us in proportion to the shareholding percentage in the relevant subsidiaries which conduct the specific projects. The total investments and the amount invested herein only include the investment which we are responsible for, whilst the amount of investment from the other shareholders of the relevant subsidiaries is excluded.

- Medical cobalt-60 raw materials manufacturing and technology service agreement (醫用鈷-60原料生產技術服務長期合作協定) with Shanghai Nuclear Engineering Research and Design Institute with a term of 15 years, pursuant to which Shanghai Nuclear Engineering Research and Design Institute agreed to provide us with manufacturing and technology service with respect to medical cobalt-60 raw materials; and
- Medical cobalt control rod irradiation agreement (醫用鈷調節棒長期輻照協議) with Qinshan No.3 Nuclear Power with a term from 2018 to 2022, pursuant to which Qinshan No.3 Nuclear Power is responsible for irradiation of medical cobalt control rods in the nuclear reactors to produce medical cobalt-60 raw materials. The following sets forth the salient terms of the medical cobalt control rod irradiation agreement:

Term: the agreement expires at end of 2022 after Qinshan No.3 Nuclear Power delivers three batches of medical cobalt-60 raw materials; the agreement could be renewed for another five years with 18-month prior notice by us and consent of Qinshan No.3 Nuclear Power.

Pricing: we pay a fixed irradiation service fee per cobalt control rod to Qinshan No.3 Nuclear Power. If the medical cobalt-60 raw materials produced by Qinshan No.3 Nuclear Power fails to meet certain level of radioactivity, parties could negotiate the service fee separately.

Payment schedule: we make the service fee payment by one lump sum within 30 working days after we receive the invoice.

Termination: either party may terminate the agreement if breaching party substantially breaches any terms of the agreement and fails to cure the breach within 30 days after receipt of the notification from the non-breaching party.

The research and development period of the project is from 2014 to 2019. As of the Latest Practicable Date, the medical cobalt control rod has been placed in the nuclear reactor of Qinshan No.3 Nuclear Power for irradiation. We expect that the commercial production of cobalt-60 for medical applications would commence in 2019. We believe that by 2019, we will become the first and the sole domestic supplier of cobalt-60 radioactive source for gamma knife in China, which would enable us to better control the raw materials cost for our radioactive source products and to supply cobalt-60 for medical applications to third-party manufacturers in China.

#### Medical isotopes and CLIA reagents

We are in the process of research and development of manufacturing yttrium-90 and lu-177 which are used for manufacturing radiopharmaceuticals for the treatment of liver cancer and neuroendocrine tumor. We are also in the process of research and development of fully-automated tubular CLIA reagents and plate-based CLIA reagents. The planned investment amount of CLIA reagents is RMB54.0 million. As of April 30, 2018, we had invested RMB9.2 million. The remaining investment would be funded by internal resource and the net proceeds of the Global Offering. We expect we could complete research and development phase by 2021 and commence application for clinical trial afterwards.

#### MAJOR CUSTOMERS AND SUPPLIERS

# **Major Customers**

Our primary customers are: (i) hospitals and other medical institutions in China with respect to our pharmaceuticals business; (ii) irradiation service providers, gamma ray radiotherapy equipment manufacturers and non-destructive testing equipment manufacturers in China with respect to our radioactive source products business; (iii) manufacturers of medical devices, cosmetics and traditional Chinese medicine, and irradiation service providers in China with respect to our irradiation business; and (iv) hospitals and other medical institutions with respect to our independent clinical laboratory services.

For the years ended December 31, 2015, 2016 and 2017, sales to our five largest customers in aggregate accounted for 5.3%, 5.3% and 6.7%, respectively, of our total revenue. For the years ended December 31, 2015, 2016 and 2017, sales to our largest customer accounted for 1.4%, 2.1% and 2.6%, respectively, of our total revenue. We started business relationship with one of our top five customers in 2017 and we had at least two years relationship with the remaining four of our largest five customers in 2017.

In 2015, 2016 and 2017, Shanghai GMS Pharmaceutical was one of our five largest customers. We owned Shanghai GMS Pharmaceutical as to 49% of its equity interest as of the Latest Practicable Date. The remaining equity interests of Shanghai GMS Pharmaceutical are owned by Dongcheng Pharmaceutical, an Independent Third Party. We primarily sold sodium iodine-131 oral solution to Shanghai GMS Pharmaceutical for further distribution and sale. In 2015, CNNC Jianzhong Nuclear Fuel was one of our largest five customers. CNNC Jianzhong Nuclear Fuel is a wholly-owned subsidiary of CNNC. We primarily sold californium-252 startup neutron source to CNNC Jianzhong Nuclear Fuel. In 2016 and 2017, Beijing Leike Mechatronic Engineering Technology Co., Ltd. (北京雷克機電工程技術有限公司) was one of our largest five customers. Beijing Leike Mechatronic Engineering Technology Co., Ltd. is controlled by CIAE. We primarily sold Iridium-192 source to Beijing Leike Mechatronic Engineering Technology Co., Ltd.. During the Track Record Period, our sales to the related parties disclosed above were conducted on normal commercial terms and at arm's length. We did not provide more favorable terms and conditions to these related parties compared to the counterparts to third-party customers.

Save as disclosed above, to the knowledge of our Directors, none of them or their respective close associates (as defined in the Listing Rules), or our existing Shareholders who owns more than 5.0% of our issued share capital has any interest in any of our five largest customers.

# **Major Suppliers**

Our primary suppliers are: (i) overseas manufacturers of radioisotopes in South Africa, Netherlands, Russia and Canada, overseas manufacturers of carbon-13 and carbon-14 in the US and domestic antigens and antibodies suppliers in China with respect to our pharmaceuticals business; (ii) overseas manufacturers of various radioisotopes in Russia and Canada and the domestic partners for the production of cobalt-60 sealed source for irradiation service with respect to our radioactive source products; (iii) manufacturers of machinery and equipment for irradiators in China for our irradiation business; and (iv) in vitro diagnostic reagents producers in China with respect to our independent clinical laboratory services.

To the knowledge of our Directors, the nuclear reactor used to produce radioisotopes for one of our suppliers in Canada ceased commercial operation at the end of 2016. This could reduce the supply of molybdenum-99, a key raw material to our molybdenum-99/technetium-99m generator and technetium-99m labeled injections. From 2014 to 2016, the contribution of such supplier in Canada as to the total purchase of the Group with respect to molybdenum-99 was 45.1%, 47.2% and 25.5% respectively. In 2015, we received the notice from such Canadian supplier of its plan to cease the production of molybdenum-99 in 2016. In anticipation of this development, we have diversified our suppliers to include suppliers from South Africa and Belgium. Molybdenum-99 purchased from the suppliers in South Africa and Belgium is of similar price and quality of molybdenum-99 sourced from the supplier in Canada. The quantity of molybdenum-99 supplied by other suppliers were also able to meet our needs to manufacture the relevant radiopharmaceuticals. Therefore, we believe the cessation of operation of the nuclear reactor in Canada would not materially and adversely affect our business operations. During the Track Record Period and up to Latest Practicable Date, there had been no material shortage or delay in the supply from our major suppliers which had a material adverse effect on our business operations as a whole.

The following table shows the details of our five largest suppliers during the Track Record Period:

Supplier	Type of raw materials/services	Principal business	% of the total purchase of the Group	When became supplier of the Group
2015				
Supplier A	Carbon-13 urea	Manufacturing and sale of biomedicine, biochemical reagents and consumables	25.2%	2009
Supplier B	Processing of cobalt-60 source products; transportation of cobalt-60 rod and its finished products; processing of cobalt-60 containers; nuclear technical service	Production of isotope raw materials, civil standard radioactive sources and reactor irradiation services	5.6%	2001
Supplier C	Installation service for cobalt-60 sealed source for gamma knife	Research and development, production, sales and maintenance of gamma ray stereotactic radiotherapy equipment and investment in and operation of tumor radiotherapy centers	5.3%	2014
Supplier F	Molybdenum-99 and iodine-125 raw materials	Radioisotope manufacturing enterprise	4.8%	2011
Supplier E	Irradiation service	Construction and operation of pressurized heavy water reactors as well as relevant training services	4.7%	2010
2016				
Supplier D	Radioisotopes	Research and development, manufacturing and sale of radioisotope products	10.3%	1999
Supplier F	Molybdenum-99 and iodine-125 raw materials	Radioisotope manufacturing enterprise	7.8%	2011
Supplier A	Carbon-13 urea	Manufacturing and sale of biomedicine, biochemical reagents and consumables	7.5%	2009
Supplier G	Molybdenum-99 and iodine-131 raw materials	Radioisotope manufacturing enterprise	5.5%	2003
Supplier H	Iodine-131 and iridium-192 raw materials	Radioisotope manufacturing enterprise	5.0%	2008

### **BUSINESS** 2017 Supplier A 10.6% 2009 Carbon-13 urea Manufacturing and sale of biomedicine, biochemical reagents and consumables Supplier I Molybdenum-99 raw materials Production of API-grade radioisotopes 8.6%2014 Supplier J Carbon monoxide gas Development, production and marketing 7.9% 2014 of stable (non-radioactive) isotopes and chemical compounds labeled with stable isotopes Supplier B Processing of cobalt-60 source products; Production of isotope raw materials, civil 5.6% 2001 transportation of cobalt-60 rod and its standard radioactive sources and reactor finished products; processing of cobalt-60 irradiation services containers; nuclear technical service Supplier C Installation service for cobalt-60 sealed Research and development, production, 4.4% 2014 source for gamma knife sales and maintenance of gamma ray stereotactic radiotherapy equipment and

For the years ended December 31, 2015, 2016 and 2017, our five largest suppliers in aggregate accounted for 45.4%, 36.1% and 37.2%, respectively, of our total purchase. For the years December 31, 2015, 2016 and 2017, our largest supplier accounted for 25.2%, 10.3% and 10.6%, respectively, of our total purchase. We had at least three years relationship with all of our largest five suppliers in 2017.

radiotherapy centers

investment in and operation of tumor

In 2017, CIAE was one of our largest five suppliers. CIAE is directly controlled and managed by CNNC and a promoter and substantial shareholder of our Company. We primarily purchased services from CIAE in connection with provision of transportation of cobalt-60 sealed source for irradiation service produced at Qinshan No. 3 Nuclear Power to the facilities of CIAE and sealing of the cobalt-60 sealed source for irradiation service for delivery to customers. In 2015, Qinshan No.3 Nuclear Power was one of our largest five suppliers. Qinshan No. 3 Nuclear Power is a non-wholly-owned subsidiary of CNNC. We primarily purchased irradiation service of the cobalt-59 control rod from Qinshan No.3 Nuclear Power with respect to the produce cobalt-60 sealed source for irradiation service. We rely on our related parties to manufacture cobalt-60 sealed source for irradiation service. According to Frost & Sullivan, such related parties are the only qualified suppliers in China of cobalt-60 sealed source for irradiation service.

Save as disclosed above, to the knowledge of our Directors, none of them or their respective close associates (as defined in the Listing Rules), or our existing Shareholders who owns more than 5.0% of our issued share capital has any interest in any of our five largest suppliers.

### COMPETITION

We face competition mainly from manufacturers of image diagnostic and therapeutic radiopharmaceuticals, UBT kits and analyzers and in vitro immunoassay diagnostic reagents and kits in China. We compete primarily on the basis of research and development capabilities, technological expertise, brand recognition and academic marketing activities. As a result of our long history as the leading provider of a wide range of radiopharmaceuticals, radioactive source products and irradiation service, we believe we are well positioned to compete in the field of isotopes and irradiation technology applications in China.

We are the leading manufacturer and service provider in the field of isotopes and irradiation technology applications in China. According to Frost & Sullivan, we were the largest manufacturer of

image diagnostic and therapeutic radiopharmaceuticals, UBT kits and analyzers, RIA kits and radioactive source products in terms of revenue in 2017 in China. We were also the largest EPC service provider for the design, manufacturing and installation of irradiation facilities in terms of revenue combined during the Track Record Period in China, according to Frost & Sullivan. Please see "Industry Overview" in this prospectus for details of the competitive landscape of our business operations.

### **EMPLOYEES**

The following tables show the number of our employees by function as of December 31, 2017:

	As of December 31, 2017
Manufacturing	861
Sales and marketing	234
Quality control	
Research and development	168
Finance	88
Administration and management	380
Total	1,886

All of our major manufacturing subsidiaries have labor unions. We do not enter into any collective bargaining agreement with our employees. We did not have any material labor disputes with our employees which may materially and adversely affect our business operations during the Track Record Period and up to the Latest Practicable Date.

### **Employee Benefits**

We provide our employees with salaries and bonuses, as well as employee benefits, including retirement schemes, medical and vocational injury insurance schemes and housing provident fund schemes. Our employees located in China are covered by the mandatory social security schemes defined by PRC local practice and regulations, which are essentially defined contribution schemes.

### **Training and Development**

We are committed to providing training to all employees to equip them with the necessary skills to perform their jobs competently and to give them the opportunities to realize their personal career goals and aspirations. We are also committed to providing individuals with management and leadership training that will improve our capability to achieve our vision, mission and growth objectives. We realize the importance of developing individual career paths that will help people develop their full potential. Development opportunities are provided as a result of on-the-job experiences and formal training programs.

### OCCUPATIONAL HEALTH AND SAFETY

The PRC government imposes a number of regulatory requirements on pharmaceutical companies with regard to employee occupational health and safety. We have implemented safety measures at our manufacturing facilities to ensure compliance with applicable regulatory requirements, including those required under the GMP certification. We construct and maintain all of our manufacturing facilities in accordance with the relevant requirements under the GMP certification as well. Each of our manufacturing subsidiaries has established a designated safety supervision team to

oversee the implementation of the safety measures of that entity. These safety supervision teams conduct periodic inspections of manufacturing facilities to ensure that our manufacturing, transportation and sales of products are in compliance with existing PRC laws, rules and regulations. Our safety supervision teams conduct regular safety training sessions for employees, including in relation to accident prevention and management. We have obtained the occupational health and safety management system certification in connection with the manufacturing of imaging diagnostic and therapeutic radiopharmaceuticals and radioactive source products.

We have adopted a safe production development and accident prevention implementation policy, which provides comprehensive guidelines on occupational health and safety. Among other things, the policy: (i) identifies the personnel and department responsible for accident prevention; (ii) details each employee's responsibility to prevent accidents and promote safety awareness; and (iii) requires safety performance reports on a regular basis.

We conduct periodic inspections of our manufacturing facilities, warehouses and laboratories to ensure that our manufacturing, warehousing operations comply with existing PRC laws, rules and regulations. We also conduct regular training sessions for employees on accident prevention and management. We have our own special safety production committee responsible for reviewing and approving our safety production rules and systems, safety and quality standards. Our safety production committee has established a comprehensive safety warning and preparatory emergency processing system in respect of irradiation events to minimize the risk of injury at our manufacturing facilities, warehouses and laboratories. Some of the products we distribute and radioactive materials we use in the manufacturing process are inherently dangerous, and we have adopted strict policies in accordance with relevant national standards when handling such products and radioactive materials.

However, some of our business operations involve certain risks and hazards that are inherent in such activities and may not be completely eliminated by safety measures. These risks and hazards could result in damage to, or destruction of, properties or facilities, personal injury, environmental damage, business interruption and possible legal liability. See "Risk Factors — Risks Relating to Our Business and Industry — Any operational failure or disruption at our production facilities could have a material adverse effect on our cashflows, competitive position, financial condition or results of operations" in this prospectus.

As of the Latest Practicable Date, we had not experienced any material accidents in the course of our operations, and our Directors were not aware of any claims for personal or property damages in connection with health and occupational safety.

### **ENVIRONMENTAL MATTERS**

We endeavor to protect the environment, and strive to conduct our business in full compliance with applicable environmental laws and regulations. Our operations are subject to environmental laws and regulations in relation to, among others, the discharge of gaseous, liquid and solid waste, including radioactive waste. We strive to comply with relevant PRC environmental regulations. Our relevant subsidiaries have obtained the irradiation safety permits approved and issued by the competent environmental authority. Our manufacturing facilities have successfully obtained the environmental management system certificates (GB/T 24001-2004/ISO 14001:2004 Standard) in connection with the manufacturing of imaging diagnostic and therapeutic radiopharmaceuticals and radioactive source products. We strictly follow relevant laws and regulations in disposing of the radioactive waste that

they produce. In addition, the quantities and radiation of the waste water, waste gas and other solid pollutants discharged during our business operations are at levels permitted by relevant laws and regulations. As required by the relevant laws and regulations, we prepare environmental impact assessment reports for all nuclear power projects we operate and manage and start construction of the related projects only after receiving approval from the relevant authorities.

During the Track Record Period, we have incurred non-compliance incident with respect to the relevant PRC environmental protection laws and regulations. HTA was fined RMB0.1 million by the MEP for its unauthorized sale of radioactive source in accordance with the relevant PRC laws and regulations. For more details, see "Business — Regulatory Compliance — Historical Non-compliance Incidents" in this prospectus.

Save as disclosed above, during the Track Record Period and up to the Latest Practicable Date, we were not subject to any material claims, litigations, penalties or punishments with respect to environmental issues. However, the PRC government may enact more stringent environmental laws which would adversely affect our results of operations and financial condition. See "Risk Factors — Risks Relating to Our Business and Industry — We are required to comply with various environmental, health and safety laws and regulations in China, which may increase our cost of compliance" in this prospectus.

Our cost of compliance with applicable environmental laws and regulations primarily includes the cost of discharge of gaseous, liquid and solid waste, and the provision for reclamation obligations with respect to the radioactive production facilities. For the years ended December 31, 2015, 2016 and 2017, our cost for discharge of gaseous, liquid and solid waste was RMB3.2 million, RMB9.3 million and RMB12.8 million, respectively. For the years ended December 31, 2015, 2016 and 2017, the provision for reclamation obligations with respect to the radioactive production facilities was RMB145.5 million, RMB156.7 million and RMB167.1 million, respectively.

### INTELLECTUAL PROPERTY RIGHTS

As of the Latest Practicable Date, we had registered 28 trademarks, 207 patents and 25 computer software copyrights in the PRC, all of which are considered material to our business. Our key patents are related to the design, synthesis, production and examination of imaging diagnostic and therapeutic radiopharmaceuticals, the preparation and production process of UBT kits and analyzers, the development of in vitro immunoassay diagnostic reagents and preparation of raw materials of in vitro immunoassay diagnostic reagents, the design and manufacturing of radioactive sources, and industrial tracer technologies and modification of properties of special materials through irradiation. Our software copyrights are mainly related to the production of radioactive pharmaceuticals and the operation of UBT analyzers. See "Statutory and General Information — 2. Further information about Our Business — B. Our Intellectual Property Rights" in Appendix VI to this prospectus for further details.

The protection of our technologies, trade secrets, proprietary know-how and manufacturing processes is essential to our businesses. In order to protect our trade secrets and other proprietary know-how, we adopted a set of intellectual property rights management measures, including (i) entering into employment contracts with non-disclosure clauses that prohibit our employees from disclosing trade secrets or proprietary know-how, (ii) all intellectual properties developed by employees in connection with their scope of work, principally utilizing our Company's resources or

under particular instruction shall become our intellectual properties, (iii) adoption of intellectual properties protection measures at the beginning of all research and development projects, (iv) procuring the application of patents and trademarks for the intellectual properties formed in connection with particular research and development project as soon as practicable, (v) filing of all documentation of research and development projects to the specific department for record, and (vi) keeping written records for the research and development results.

As of the Latest Practicable Date, four promoters used our brand name in the marketing and promotion of our UBT kits and analyzers. We have adopted a comprehensive sales management system with respect to the use of our brand, logo and name by these promoters. We require promoters who use our logo to limit the usage to the promotion of our UBT products. All of our promoters have issued written undertakings to us that they have not applied for the trademark in the name of our Group, and have agreed to indemnify us for all loss incurred due to their business operation. During the Track Record Period and up to the Latest Practicable Date, we were not aware of any potential abuse or improper use of our brand name by our promoters. See "Business — Pharmaceuticals — Sales and Customers of Pharmaceuticals — UBT kits and analyzers" in this prospectus for details.

We are not aware of any material infringement of our intellectual property rights during the Track Record Period, and we will consider if any action is required upon becoming aware of any potential infringement of our trademarks. As of the Latest Practicable Date, we were not aware of any pending or threatened claims against us or any of our subsidiaries relating to the infringement of any intellectual property rights owned by third parties.

### **INSURANCE**

As of the Latest Practicable Date, we did not have insurance coverage on our major assets and operations over which we have operational control. We do not maintain business interruption insurance, public liability or third party liability insurance to cover claims in respect of personal injury, property or environmental damages arising from accidents on our property or relating to our operations. We have adopted a written comprehensive insurance management system which sets out the detailed procedures of purchase of insurance policies and the responsibilities and duties of the designated staff. As of the Latest Practicable Date, we were in the process of considering the applicable insurances available on the market. During the Track Record Period and up to the Latest Practicable Date, there were no accidents or production interruptions which materially and adversely affected our business, financial condition and results of operation. See "Risk Factors — Risks Relating to Our Business and Industry — We have not maintained insurance for our fixed assets and product responsibility to provide coverage for ordinary risks associated with our major business" in this prospectus for a discussion of the risks associated with our insurance coverage.

### MAJOR AWARDS

During the Track Record Period, we had won various awards and recognition for our research and development capability. The following table sets out our major awards and recognition since 2014.

Awards and Recognitions	Award-winning Subsidiary:	Year	Issuing Authority
Beijing Biomedical Industry Pioneer Development Project Enterprise (G20 Project) Industry leader	НТА	2016	Science and Technology Commission of Beijing Municipality, Beijing Municipal Commission of Development and Reform, Beijing Municipal Commission of Economy and Information Technology, Beijing Municipal Commission Of Health and Family Planning, Beijing Food and Drug Administration, Administration Committee of Zhongguancun Science Park and Beijing Investment Promotion Bureau
Award of Science and Technology of National Defense (First Class) (10MeV/20kW high-energy and high- power electron irradiation accelerator device)	HTA	2016	MIIT
Science and Technology Award of CNNC (First Class) (10MeV/20kW high- energy and high-power electron irradiation accelerator device)	HTA	2016	CNNC
Award of Science and Technology of National Defense (Third Class) (advanced radioactive tracer technology development in oil industry)	НТА	2014	MIIT
Science and Technology Award of CNNC (Second Class) (advanced radioactive tracer technology development in oil industry)	НТА	2014	CNNC

### **LEGAL PROCEEDINGS**

From time to time, we have been, and may in the future be, involved in arbitration, litigation or regulatory proceedings relating to contract disputes, intellectual property rights disputes and other matters in the ordinary course of our business.

One of our subsidiaries, Suzhou Radiation, is the registered shareholder of 10.15% equity interest of Huakang Radiation. Separately, our Company also holds a direct 42% equity interest in Huakang Radiation. In 2014, there was a dispute between Suzhou Radiation and certain individual shareholders of Huakang Radiation concerning the 10.15% equity interest held by Suzhou Radiation. In May 2017, certain current and former individual shareholders of Huakang Radiation filed a lawsuit with Zhangjiagang Municipal People's Court with respect to such dispute. In essence, the dispute was whether Suzhou Radiation had in fact acquired the 10.15% equity interest by way of technical support to Huakang Radiation or any other consideration. In July 2017, such legal proceeding was transferred to Suzhou Wujiang Municipal People's Court due to personal jurisdiction of the competent court. On February 1, 2018, the competent court issued a judgment in favor of us to repeal the claims brought by the plaintiffs. The plaintiffs did not appeal within the prescribed timeframe under the relevant PRC law and therefore the judgment became effective and binding upon the parties.

Our Directors have confirmed that, during the Track Record Period and up to the Latest Practicable Date, there were no legal proceedings pending or threatened against us or our Directors that could, individually or in the aggregate, have a material adverse effect on our business, financial condition or results of operations.

### REGULATORY COMPLIANCE

### **Permits, Licenses and Approvals**

We are subject to regular inspections, examinations and audits, and are required to maintain or renew the necessary permits, licenses and approvals for our business operations under the relevant PRC laws and regulations. The major permits relevant to our businesses include pharmaceuticals production permits, radiopharmaceuticals production permits, pharmaceuticals sales permits, radiopharmaceuticals sales permits, medical device production permits, medical device sales permits and medical institutions practicing permits. See "Regulatory Environment" in this prospectus for further details of the relevant permits and licenses relevant to our business operations.

The following table sets forth details of our material permits and licenses:

Permit/License	Holder	Issuing Authority	Expiry Date
Radiopharmaceuticals Production Permit	НТА	Beijing Food and Drug Administration ("Beijing FDA")	December 31, 2021
Radiopharmaceuticals Production Permit	CNGT	Sichuan Food and Drug Administration ("Sichuan FDA")	December 31, 2021
Radiopharmaceuticals Production Permit	BNIBT	Beijing FDA	December 31, 2021
Pharmaceuticals Production Permit	BNIBT	Beijing FDA	December 13, 2020
Radiopharmaceuticals Production Permit	Headway	Guangdong Food and Drug Administration ("Guangdong FDA")	December 31, 2021
Pharmaceuticals Production Permit	Headway	Guangdong FDA	December 31, 2020
Radiopharmaceuticals Production Permit	Shanghai Yuanzi Kexing	Shanghai Food and Drug Administration ("Shanghai FDA")	December 31, 2021
Radiopharmaceuticals Production Permit	Hangzhou Yuanzi Gaoke Co., Ltd.	Zhejiang Food and Drug Administration ("Zhejiang FDA")	February 9, 2022
Radiopharmaceuticals Production Permit	Tianjin Yuanzi Gaoke Co., Ltd.	Tianjin Food and Drug Administration ("Tianjin FDA")	July 18, 2021
Radiopharmaceuticals Production Permit	Chongqing Yuanzi Gaoke Co., Ltd.	Chongqing Food and Drug Administration ("Chongqing FDA")	August 8, 2019
Radiopharmaceuticals Production Permit	Zhengzhou Yuanzi Gaoke Co., Ltd.	Henan Food and Drug Administration ("Henan FDA")	August 8, 2019
Radiopharmaceuticals Production Permit	HTA (Guangzhou)	Guangdong FDA	December 31, 2021
Radiopharmaceuticals Production Permit	Shenyang Yuanzi Gaoke Co., Ltd.	Liaoning Food and Drug Administration ("Liaoning FDA")	December 10, 2020
Radiopharmaceuticals Production Permit	Hengdian Yuanzi Gaoke Co., Ltd.	Zhejiang FDA	February 9, 2022
GMP certificate (BJ2016)	HTA	Beijing FDA	February 23, 2022
GMP certificate (CN20130564)	HTA	CFDA	December 29, 2018
GMP certificate	CNGT	CFDA	May 22, 2019
GMP certificate	BNIBT	CFDA	August 18, 2019
GMP certificate(GD20170662)	Headway	Guangdong FDA	January 2, 2022
GMP certificate	Shanghai Yuanzi Kexing	CFDA	September 2, 2018
GMP certificate	Hangzhou Yuanzi Gaoke Co., Ltd.	CFDA	December 22, 2018
GMP certificate	Tianjin Yuanzi Gaoke Co., Ltd.	CFDA	December 22, 2018

Permit/License	Holder	Issuing Authority	Expiry Date
GMP certificate	Chongqing Yuanzi Gaoke Co., Ltd.	CFDA	January 18, 2020
GMP certificate	Zhengzhou Yuanzi Gaoke Co., Ltd.	CFDA	January 18, 2020
GMP certificate(CN20130369)	HTA (Guangzhou)	CFDA	October 30, 2018
GMP certificate(GD20160606)	HTA (Guangzhou)	Guangdong FDA	June 6, 2021
GMP certificate	Shenyang Yuanzi Gaoke Co., Ltd.	Liaoning FDA	December 21, 2021
GMP certificate	Hengdian Yuanzi Gaoke Co., Ltd.	Zhejiang FDA	October 8, 2022
Radiopharmaceuticals Sales Permit	The Company	Beijing FDA	December 31, 2021
Radiopharmaceuticals Sales Permit	HTA	Beijing FDA	December 31, 2021
Radiopharmaceuticals Sales Permit	CNGT	Sichuan FDA	December 31, 2021
Radiopharmaceuticals Sales Permit	BNIBT	Beijing FDA	December 31, 2021
Radiopharmaceuticals Sales Permit	Headway	Guangdong FDA	December 31, 2021
Pharmaceuticals Sales Permit	Anhui Young- Hearty	Anhui Food and Drug Administration ("Anhui FDA")	December 27, 2020
Radiopharmaceuticals Sales Permit	Shanghai Yuanzi Kexing	Shanghai FDA	December 31, 2021
Radiopharmaceuticals Sales Permit	Hangzhou Yuanzi Gaoke Co., Ltd.	Zhejiang FDA	February 9, 2022
Radiopharmaceuticals Sales Permit	Tianjin Yuanzi Gaoke Co., Ltd.	Tianjin FDA	July 18, 2021
Radiopharmaceuticals Sales Permit	Chongqing Yuanzi Gaoke Co., Ltd.	Chongqing FDA	August 8, 2019
Radiopharmaceuticals Sales Permit	Zhengzhou Yuanzi Gaoke Co., Ltd.	Henan FDA	August 8, 2019
Radiopharmaceuticals Sales Permit	HTA (Guangzhou)	Guangdong FDA	December 31, 2021
Radiopharmaceuticals Sales Permit	Shenyang Yuanzi Gaoke Co., Ltd.	Liaoning FDA	December 10, 2020
Radiopharmaceuticals Sales Permit	Hengdian Yuanzi Gaoke Co., Ltd.	Zhejiang FDA	February 9, 2022
Medical Device Production Permit	BNIBT	Beijing FDA	August 5, 2020
Medical Device Production Permit	Headway	Guangdong FDA	November 15, 2020
Medical Device Production Permit	Anhui Young- Hearty	Anhui FDA	August 7, 2021
Medical Device Sales Permit	BNIBT	Beijing FDA	September 7, 2020
Medical Device Sales Registration <sup>(1)</sup>	Headway	Shenzhen Market and Quality Inspection Administration Commission	Not applicable
Medical Device Sales Permit	Anhui Young-Hearty	Anhui FDA	January 21, 2019
Medical Institution Practicing Permit	CIC Lab	Beijing Fengtai District Health and Family Planning Commission	March 31, 2022

Note:

<sup>(1)</sup> Headway registered medical device sales for Class II medical device with the competent authority. As advised by our PRC Legal Advisors, according to the relevant PRC laws and regulations, the registration of medical device sales for Class II medical device does not prescribe a fixed validity term, whilst the medical device sales permit prescribes a validity term.

Our Directors, based on the advice from our PRC Legal Advisors, confirmed that as of the Latest Practicable Date, we had complied with laws and regulations in the PRC that are relevant to our operations and business in all material respects and had obtained the licenses, approvals and permits from relevant regulatory authorities which are material to our operations, except one radiopharmaceuticals registration certificate had expired on November 11, 2017 and were being renewed. Guangdong FDA confirmed the receipt of our application for renewing such radiopharmaceuticals registration certificate on August 4, 2017.

### Historical Non-compliance Incidents

During the Track Record Period, we had the following incidents of non-compliances of applicable laws in the PRC, which we believe do not penalty imposed on us

relevant govern	awareness and nuclear safety culture as		radioactive source without prior regulatory
application and	employees with respect to safety	r fine in full.	production company is not allowed to transfer fine in full.
procedures to er	professional training to the relevant	RMB100,000 by the MEP. HTA paid the	regulations, the radioactive source products
We have modifi	In June 2016, we have provided enhanced	On December 11, 2015, HTA was fined	1. According to the relevant PRC laws and
Enhanced int prevent	Rectification measures taken and the status as of the Latest Practicable Date	Legal consequences, potential maximum penalties and other financial liability or actual fines incurred	Non-compliance incidents and major causes
ount of fine o	have any material financial or operational impact on our Group. During the Track Record Period, the total amount of fine or pwith respect to these non-compliance incidents was RMB0.8 million.	tional impact on our Group. During the incidents was RMB0.8 million.	have any material financial or operational impact on our Group. Du with respect to these non-compliance incidents was RMB0.8 million.
	•		

### approval procedures in the sales policy and d approval procedures of the sampling tests on the compliance matters nternal control measures to t the occurrence of the nment authorities on the procedures. We have also established a fied the sales policy and specifying the detailed application and ctive source, including dedicated staff to conduct periodical and report to the senior management. enhance the necessary compliance checklist and assigned non-compliance also conducted enhanced monitoring of the regulations on the systematic nuclear and and poisonous materials, and streamlined irradiation safety management. We have radioactive source, radioactive materials the sales procedures and practice of the radioactive materials.

monetary gain of RMB5,255 generated from the sales of the collegial gold reagents by Administration Bureau. BNIBT paid the Beijing Fengtai District Food and Drug On March 25, 2015, BNIBT was fined RMB203,600 and forfeited the illegal 2. From July 2013 to October 2014, BNIBT certificates for such two types of collegial

BNIBT had ceased production and sale of products for research and development purpose only since October 2014.

enhanced professional training to relevant regulations on qualifications, permits and staff with respect to PRC laws and In March 2015, we have provided icenses of our products.

> research institutions in the PRC for research sold two types of collegial gold reagents to and development purpose only. BNIBT did not obtain the medical device registration

and inadvertent oversight of the relevant PRC

caused by our designated staff's unintended

Such non-compliance incident was mainly

management system and procedures, as well

as their lack of awareness of safety

compliance.

laws and regulations and our relevant safety

In January 2015, HTA transferred radioactive

authority

relevant prior regulatory approval. There was source to the customer without obtaining the

compliance incident because the relevant radioactive source was transported to a

no revenue generated from such non-

certain destination for warehousing purpose

by HTA. The transfer was not a sale

transaction.

## Legal consequence penalties and one of the compliance incidents and major causes

non-compliance incident was RMB5,255. According to the Regulation on the

gold kits. The revenue generated from such

According to the Kegulation on the Supervision and Administration of Medical Devices (《醫療器械監督管理條例》) promulgated and amended in March 2014 by the State Council, such two types of collegial gold reagents belong to the products which shall be registered with the CFDA. However, the CFDA issued In Vitro Diagnosis Reagents Registration Administrative Measures (for trial implementation)

Reagents Registration Administrative Measures (for trial implementation) (《體外診斷試劑註冊管理辦法》(試行)) in April 2007, pursuant to which such two types of collegial gold reagents could be exempted from registration requirements if the same are

for research and development purpose only instead of diagnosis purpose, hence there is no need to obtain medical device registration certificate for the products which are for research and development purpose only. The In Vitro Diagnosis Reagents Registration Administrative Measures (for trial

implementation) (《體外診斷試劑註冊管理辦法》(試行)) had been abolished and replaced by The In Vitro Diagnosis Reagents Registration Administrative Measures

(體外診斷試劑註冊管理辦法) in August 2014 and the relevant provisions regarding the exemption of registration of in vitro diagnosis reagents for research and development purpose only was removed.

administrative penalty notice from Beijing

On March 25, 2015, BNIBT received the

### Legal consequences, potential maximum penalties and other financial liability or actual fines incurred

Rectification measures taken and the status as of the Latest Practicable Date

fine and forfeited the illegal monetary gain in full.

Enhanced internal control measures to prevent the occurrence of the non-compliance

222

	Non-compliance incidents and major causes	Legal consequences, potential maximum penalties and other financial liability or actual fines incurred	Rectification measures taken and the status as of the Latest Practicable Date	Enhanced internal control measures to prevent the occurrence of the non-compliance
223	Fengtai District Food and Drug Administration Bureau in connection with manufacturing and sale of such two types of collegial gold reagents without obtaining medical device registration certificates according to the Supervision and Administration of Medical Devices (《醫療器械監督管理條例》). Such non-compliance incident was caused by (i) the different understanding of the Regulation on the Supervision and Administrative Measures (for trial implementation) (《醫療器械監督管理條例》) and In Vitro Diagnosis Reagents Registration Administrative Measures (for trial implementation) (《醫外診斷試劑註冊管理辦法》(試行)) between the competent government authority and us and (ii) our designated staff's unintended and inadvertent oversight of the newly development of the relevant PRC laws and regulations. The relevant staff were not aware that the In Vitro Diagnosis Reagents Registration Administrative Measures (for trial implementation) (《體外診斷試劑註冊管理辦法》(試行)) had been abolished and replaced by The In Vitro Diagnosis Reagents Registration Administrative Measures (儘外診斷試劑註冊管理辦法》) in August 2014 and the relevant provisions regarding the exemption of registration of in vitro diagnosis reagents for research and development			
	3. In 2014, Zhangjiagang Tax Bureau conducted inspection of the finance and accounting record on Huakang Radiation. According to the calculation method adopted	Huakang Radiation paid the supplemental tax and late payment fee in full. There was not material cumulative impact of the different amortization method of cobalt-60	We have made entries with respect to the amortization on the cobalt-60 sealed source for irradiation service pursuant to	In October 2015 and October 2016, we have provided enhanced professional training to relevant staff with respect to

Enhanced internal control measures to prevent the occurrence of the non-compliance	PRC laws and
Rectification measures taken and the status as of the Latest Practicable Date	the calculation method adopted by the
Legal consequences, potential maximum penalties and other financial liability or actual fines incurred	sealed source to financial results of the
Non-compliance incidents and major causes	ıreau,

sealed source to financial results of the Group. Radiation allowed more amortization on the

cobalt-60 sealed source for irradiation service than it should have done in the fiscal years of Radiation was ordered to pay the supplemental tax of RMB0.5 million and late

payment fee of RMB0.5 million.

2005 and 2006. Therefore, Huakang

the calculation method adopted by the Zhangjiagang Tax Bureau.

accounting matters.

with respect to the amortization on the cobalt-

between the relevant tax authorities and us.

60 sealed source for irradiation service

The incident was caused due to the different

interpretation of the accounting treatment

Our Directors are of the view that the above non-compliances, individually or in the aggregate, do not and will not have any material financial or operational impact on our Group. In order to prevent the reoccurrence of the above non-compliances in the future, we have implemented the enhanced internal control measures disclosed above.

The Directors and the Sole Sponsor are of the view that, as the non-compliances were mainly caused by the lack of knowledge of officers of the relevant subsidiaries of the applicable legal requirements, and did not involve any of our Directors or senior management or any issue of the integrity, character or competence of our employees:

- (a) the above measures, in particular, the enhancement of sales policy and procedures, transportation policy, packaging materials management policy and customer information management would help ensure that our Group would be aware of the relevant legal requirements in the future, are adequate and effective; and
- (b) the above non-compliances do not affect the suitability of our Directors under Rules 3.08 and 3.09 of the Listing Rules or our suitability for listing under Rule 8.04 of the Listing Rules.

### **PROPERTIES**

We own and lease properties in the PRC primarily for production facilities, warehouses and office space. As of the Latest Practicable Date, we owned 52 buildings in the PRC with a gross floor area of approximately 135,738.4 square meters and owned 32 parcels of land with a total site area of approximately 226,940.9 square meters (excluding the site area of seven parcels of land as there is no site of area specified on the relevant title documents due to the combined registration of the ownership of the building and the parcel of land upon which the building was built (房屋所有權和土地所有權統一登記)). In addition, we leased 28 buildings with a gross floor area of approximately 37,929.6 square meters, and leased four parcels of land with a total site area of approximately 33,106.1 square meters.

As of the Latest Practicable Date, no single property accounted for 15.0% or more of our total assets by book value. Accordingly, pursuant to section 6(1) of the Companies (Exemption of Companies and Prospectuses from Compliance with Provisions) Notice (Chapter 32L of the Laws of Hong Kong), this prospectus is exempt from the requirement under Chapter 5 of the Listing Rules and section 38(1) of the Companies (Winding Up and Miscellaneous Provisions) Ordinance to include all interests in land or buildings in a valuation report as described under paragraph 34(2) of the Third Schedule to the Companies (Winding Up and Miscellaneous Provisions) Ordinance.

### **Owned Buildings**

As of the Latest Practicable Date, we owned 52 buildings with a gross floor area of approximately 135,738.4 square meters in China. Among the 52 buildings that we owned, we have obtained the building ownership certificates for 44 buildings with a gross floor area of approximately 93,422.5 square meters, representing 68.8% of the gross floor area of the buildings that we owned.

As of the Latest Practicable Date, we had not obtained the building ownership certificates with respect to four properties with a total gross floor area of approximately 23,042.9 square meters, representing of 17.0% of the gross floor area of buildings that we owned. Of these four properties, there are two properties for production facilities of our irradiation business in Sichuan province and Jilin province and one property for office space and cold storage in Jiangsu province, with a total gross floor area of 19,401.1 square meters. We would apply for the building ownership certificates after we

completed certain completion and acceptance procedures for the production facilities in Sichuan province and Jilin province. The property for office space and cold storage in Jiangsu province was acquired in connection with the Saiwang Acquisition. As of the Latest Practicable Date, we had not used such property for any purpose. The remaining one property was acquired in December 2017 from a third party in Hangzhou as production facilities of radiopharmaceuticals, with a gross floor area of 3,641.9 square meters. We were in the process of completing the title transfer procedure and obtain the building ownership certificate of such property as of the Latest Practicable Date.

As of the Latest Practicable Date, we had not obtained the building ownership certificates for the remaining four buildings with defective title, with a gross floor area of approximately 19,273.0 square meters and representing 14.2% of the gross floor area of buildings that we owned.

# The table below sets forth our four owned buildings with defective titles as of the Latest Practicable Date:

### Nature of the properties with defective titles

1. Jinhui Radiation had not obtained the building ownership certificate with respect to a building constructed by itself and being used as office space and warehouse. Our Directors confirmed that the safety conditions of such building are sound.

The gross floor area of the building is 4,654 square meters and represents approximately 3.4% of the total gross floor area of our owned buildings.

building ownership certificate because Jinhui Radiation had not obtained the land use right building according to the relevant PRC laws upon which such building was built and had Jinhui Radiation did not obtain the relevant certificate with respect to the parcel of land commencement permit (建設工程施工許可證) not obtained the relevant construction land ownership certificate with respect to such use planning permit (建設用地規劃許可證), (建設工程規劃許可證), construction works and completion and acceptance approval (建設工程竣工驗收). Consequently, Jinhui Radiation could not obtain the building construction works planning permit and regulations. There is no difference in cost we would have to pay if the building did not have defective

### The maximum potential liabilities or actual penalties imposed with respect to the properties with defective titles

owned land (集體土地) and is prohibited for land upon which the relevant building was industrial use under the relevant PRC laws certificate, construction land use planning parcel of collectively-owned land in 2008. and regulations. The unlawful acquisition commencement permit. Jinhui Radiation unlawful acquisition of, and use of, such of collectively-owned land for industrial Jinhui Radiation acquired the parcel of (農耕地) which is a type of collectivelyconstruction of the relevant building in 2006. The parcel of land was farmland Beijing Fangshan District State-owned was fined a penalty of RMB49,996 by Radiation to obtain the land use right permit, construction works planning Land Administration Bureau for its use resulted in the failure of Jinhui built in 2004 and completed the permit and construction works

In 2013, Beijing Fangshan District State-owned Land Administration Bureau changed the planning use of such parcel of land from farmland (農耕地) to industrial use land (工業用地). Jinhui Radiation's use of such parcel of land is compliant with the current planning use permitted by the relevant state-owned land administration authorities.

As advised by our PRC Legal Advisors, the relevant government authorities could

### Rectification measures taken and the status as of the Latest Practicable Date

As of the Latest Practicable Date, we were in the process of obtaining certain prior approvals from Beijing Fangshan District Government and the land use right certificate from Beijing Fangshan District State Land Administration Bureau with respect to such parcel of land. We will continue to obtain the building ownership certificate with respect to the building in question after we obtain the land use right certificate.

As of the Latest Practicable Date, there were no third-party claims or disputes with respect to such building and the parcel of land. We will use our best efforts to secure replacement properties if the relevant housing administration authorities order us to demolish such building.

Our Directors are of the view that although such building and parcel of land upon which the building was built are important to our business operations, the fact that we have not obtained formal title certificates with respect to such properties would not adversely affect our business operations because (i) the maximum monetary penalty is insignificant and (ii) the revenue contributed by such defective properties was approximately 0.65% of our total revenue in 2017.

### PRC Legal Advisors' view

As advised by our PRC Legal Advisor, our rights to occupy, use, transfer, lease, mortgage or otherwise dispose of such building may not be recognized and protected under the applicable PRC laws and regulations until we obtained the relevant title certificates.

Nature of the properties with defective titles	penalties imposed with respect to the properties with defective titles
	subject us to (i) a fine up to 10% of the construction cost of the relevant building for the failure of obtaining the construction works planning permit; (ii) a fine up to 2% of the construction cost of the relevant building for the failure of obtaining the construction works commencement permit; and (iii) a fine up to 4% of the construction cost of the relevant building for the failure of obtaining the completion an acceptance approval. Therefore, according to the relevant PRC laws and regulations, we estimated that a penalty of RMB1.7 million may be inmosed on us
	RMB10.9 million of the relevant building with defective title. As of the Latest Practicable Date, we had not been imposed any administrative penalty in connection with such building with defective title from the relevant governmental authorities.
2. HTA had not obtained the building ownership certificate with respect to the building used as a production facility. Our Directors confirmed that the safety conditions of such building are sound.	Since the acquisition of such building by us, there had been no third party claim or dispute with respect to the ownership of such building. As of the Latest Practicable Date, we had not been subject to administrative ne
The gross floor area of the building is 12,619 square meters and represents approximately 9.3% of the total gross floor area of our owned buildings.  HTA bought such building from CIAE in January 2003. The reason that HTA had not obtained the relevant building ownership certificate is due to the fact that CIAE owns the parcel of land upon which such building was built. According to the relevant PRC	auministrative penarty to be imposed by the relevant governmental authorities due to the failure to obtain the building ownership certificate of such building.  CIAE also undertook us in writing that (i) it would not take back or demolish the building and (ii) HTA lawfully acquired such building and the usage of such building by HTA would not be adversely affected. Based on the foregoing, our Directors are of the view that the failure of

Rectification measures taken and the status as of the Latest Practicable Date

The maximum potential liabilities or actual

PRC Legal Advisors' view

title certificates. affected. We believe we could continue to Due to the fact that CIAE owns the parcel without obtaining the land use right of the (i) it would not take back or demolish the building by HTA would not be adversely not have plan to purchase such parcel of relevant parcel of land. We currently do land from CIAE. On December 2, 2016, pursuant to which CIAE undertakes that building and (ii) HTA lawfully acquired building ownership transfer procedures we received an undertaking from CIAE of land upon which such building was built, we are not able to complete the such building and the usage of such

regulations until we obtained the relevant protected under applicable PRC laws and we have the right to occupy and use such building. As further advised by our PRC As advised by our PRC Legal Advisors, lease, mortgage or otherwise dispose of such building may not be recognized or Legal Advisors, our rights to transfer,

### Nature of the properties with defective titles

obtain the building ownership certificate with Consequently, HTA could not complete the procedures without obtaining the land use complete the building ownership transfer transfer of the title of such building and laws and regulations, HTA could not right of the relevant parcel of land. respect to such building.

There is no difference in cost we would have to pay if the building did not have defective

that the safety conditions of such building are production facilities. We have not started to use such building. Our Directors confirmed ownership certificate with respect to the 3. HTA had not obtained the building building in Tianjin for the purpose of sound.

The gross floor area of the building is 274.7 square meters and represents approximately 0.2% of the total gross floor area of our owned buildings.

to pay the purchase price of the acquisition of relevant building ownership certificate is due authority and, as a result, failing to obtain the building ownership certificate with respect to building was built in full to the governmental HTA bought such building from a third party property developer in Tianjin in March 2005. to the fact that the property developer failing the relevant parcel of land upon which such The reason that HTA had not obtained the Consequently, HTA could not obtain the state-owned land use right certificate. such building.

loss if the relevant building to be ordered

to demolish by the relevant government

authority. Further, as of the Latest

would not be relocation cost or revenue

building in the future. Therefore, there

building and we do not plan to use such

for any purpose after we acquired such

because we have not used such building

adversely affect our business operation

building would not materially and

that the potential demolishment of such

relevant parcel of land.

party claim or dispute with respect to the

ownership of such building. As of the

Latest Practicable Date, we had not been

subject to administrative penalty to be imposed by the relevant governmental

Practicable Date, there had been no third

There is no difference in cost we would have to pay if the building did not have defective title.

authorities due to the failure to obtain the

### The maximum potential liabilities or actual penalties imposed with respect to the properties with defective titles

adversely affect our business operations. certificate would not materially and obtaining the building ownership

### Rectification measures taken and the status as of the Latest Practicable Date

PRC Legal Advisors' view

use such building given the undertakings provided to us by CIAE. As the property developer failed to pay the right certificate, HTA is not able to obtain failed to obtain the state-owned land use governmental authority and, as a result, purchase price of the acquisition of the relevant parcel of land upon which such the building ownership certificate with building was built in full to the respect to such building. parcel of land could be reclaimed and such the relevant regulatory bodies because the building could be ordered to demolish by As advised by our PRC Legal Advisors, However, our Directors are of the view purchase price of the acquisition of the real estate developer failed to pay the there is a possibility that the relevant

ownership of such building. As advised by We have obtained a Tianjin Real Property Registration Inquiry Confirmation issued (天津市津南區房屋管理局) is the competent our PRC Legal Advisors, Tianjin Jinnan District Housing Administration Bureau (天津市津南區房屋管理局) as proof of our authority where the relevant building is because it is the building registration authority to issue such confirmation by Tianjin Jinnan District Housing Administration Bureau ocated

protected under applicable PRC laws and regulations until we obtained the relevant we have the right to occupy and use such As advised by our PRC Legal Advisors, building. As further advised by our PRC lease, mortgage or otherwise dispose of such building may not be recognized or Legal Advisors, our rights to transfer, itle certificates

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### Nature of the properties with defective titles

(深圳市高新技術產業園區) (formerly known as safety conditions of such building are sound. Industrial Village (深圳市高新技術工業村)) in facilities. Our Directors confirmed that the 4. Headway had not obtained the building Shenzhen for the purpose of production ownership certificate with respect to a Shenzhen High and New Technology building in Shenzhen High and New Fechnology Industrial Park

The gross floor area of the building is 1,725.2 building ownership certificate with respect to Consequently, Headway could not obtain the the relevant building ownership certificate is (深圳市高新技術產業園區) in September 1998. square meters and represents approximately Development and Construction Corporation (深圳高新區開發建設公司), being the property Shenzhen High and New Technology Area was insolvent after Headway acquired such The reason that Headway had not obtained due to the fact that the property developer 1.3% of the total gross floor area of our building and its failure to complete the developer of Shenzhen High and New Headway bought such building from completion and approval procedures. **Fechnology Industrial Park** owned buildings such building.

There is no difference in cost we would have to pay if the building did not have defective

### The maximum potential liabilities or actual penalties imposed with respect to the properties with defective titles

building ownership certificate of such

could be ordered to demolish according to because the property developer failed to As advised by our PRC Legal Advisors, there is a possibility that such building the relevant PRC laws and regulations complete the completion and approval procedures.

UBT products. As of the Latest Practicable and analyzers production base in Shenzhen Date, we had not been ordered to demolish that the potential demolishment would not commercial production in the second half such building by the relevant government authorities due to the failure to obtain the response to the increasing demand of our business operation because we are in the party claim or dispute with respect to the Latest Practicable Date, we had not been Practicable Date, there had been no third process of establishing a new UBT kits only covers our existing manufacturing However, our Directors are of the view of 2018. Such new production base not subject to administrative penalty to be imposed by the relevant governmental ownership of such building. As of the building ownership certificate of such capacity but also expands capacity in materially and adversely affect our authority. Further, as of the Latest which is expected to commence building.

### Rectification measures taken and the status as of the Latest Practicable Date

PRC Legal Advisors' view

procedures, Headway is not able to obtain acquired such building and its failure to developer was insolvent after Headway complete the completion and approval the building ownership certificate Due to the fact that the property with respect to such building.

and sale of premises in Shenzhen High and On March 22, 2012, we obtained written confirmation from Shenzhen Science and (深圳市科技創新委員會) that Headway had charge of the administrative management because it is the government authority in (深圳市科技創新委員會) is the competent **Fechnology Innovation Commission** authority to issue such confirmation advised by our PRC Legal Advisors, ourchased the relevant building. As Shenzhen Science and Technology (深圳市高新技術產業園區) where the New Technology Industrial Park relevant building is located. Innovation Commission

As advised by our PRC Legal Advisor, we regulations until we obtained the relevant protected under applicable PRC laws and building. As further advised by our PRC lease, mortgage or otherwise dispose of such building may not be recognized or have the right to occupy and use such Legal Advisors, our rights to transfer, itle certificates

### **Leased Buildings**

As of the Latest Practicable Date, we leased 28 buildings in China with a gross floor area of approximately 37,929.6 square meters.

Among the buildings that we leased, the landlords of 24 of our leased buildings have obtained the relevant building ownership certificates, title documents or documentary evidence in respect of the right to lease such leased buildings. Our PRC Legal Advisors are of the view that (i) the landlords of these 24 leased buildings are the owners or persons who are authorized to lease the respective buildings and (ii) the landlords are entitled to lease the respective buildings and the lease agreements are legally binding and effective.

Our landlords of the remaining four leased properties have not provided the relevant building ownership certificates or any documentary evidence in respect of the right to lease such buildings, with a gross floor area of approximately 4,182.0 square meters, representing 11.0% of the gross floor area of the buildings that we leased. Of these four leased properties, we leased (i) three properties from our Controlling Shareholder and NPIC with a total gross floor area of 4,057.0 square meters for office space and quality inspection purposes, and (ii) a property with a total gross floor area of 125 square meters for dormitory purpose.

### **Owned Land**

As of the Latest Practicable Date, we owned 32 parcels of land with a total site area of approximately 226,940.9 square meters in China (excluding the site area of seven parcels of land as there are no site area measurements specified on the relevant title documents due to the combined registration of the ownership of the building and the parcel of land upon which the building was built (房屋所有權和土地所有權統一登記)). As of the Latest Practicable Date, among all 32 parcels of land that we owned, we have obtained the land use right certificates for 31 parcels, with a total site area of approximately 216,940.9 square meters (excluding the site area of seven parcels of land disclosed above), representing 95.6% of the total site area of the land that we owned (excluding the site area of seven parcels of land disclosed above).

As of the Latest Practicable Date, we had not obtained the land use right certificate for one parcel of land with defective title, with a total site area of approximately 10,000 square meters. Such parcel of land represents 4.4% of the total site area of the land that we own (excluding the site area of seven parcels of land disclosed above). Such parcel of land is owned by Jinhui Radiation. There is no difference in the land cost that we would have had to pay if the parcel of land did not have a defective title. For the details of such parcel of land with defective title owned by Jinhui Radiation, see "Business — Properties — Owned buildings" in this prospectus. Our PRC Legal Advisors are of the view that our rights to occupy, use, transfer, lease, mortgage or otherwise dispose of such parcel of land may not be recognized or protected under applicable PRC laws and regulations until we obtained the relevant land use right certificate.

### **Leased Land**

As of the Latest Practicable Date, we leased a total of four parcels of land in China from our shareholders with a total site area of approximately 33,106.1 square meters.

We leased one parcel of land from CIAE, with a site area of approximately 21,902.7 square meters. CIAE has obtained the land use right certificate with respect to such parcel of land. Our PRC

Legal Advisors are of the view that (i) the landlord of such parcel of land is entitled to lease the respective parcel of land to us and (ii) the lease agreement is legally binding and effective.

We leased another three parcels of land from our Controlling Shareholder, with a site area of approximately 4,778 ("Parcel A"), 256.4 ("Parcel B") and 6,168.9 ("Parcel C") square meters, respectively. Such parcels of land are used for production purposes. Parcel A is where research and development facilities of HTA and the irradiation facilities of Jinhui Radiation located. The revenue contributed by irradiation facilities of Jinhui Radiation was RMB5.9 million, accounting for 0.2% of our total revenue in 2017. Parcel B and C are where the production facilities of BNIBT and CIC Lab located. The revenue of BNIBT and CIC Lab amounted to RMB95.4 million and RMB50.9 million, accounting for 3.6% and 1.9% of our total revenue in 2017, respectively.

Parcel A was leased to us by our Controlling Shareholder in 2001. We also obtained the certificate of the other rights of land (土地他項權利證明書) issued by the relevant land administration authority with respect to the lease of such parcel of land from our Controlling Shareholder. As advised by our PRC Legal Advisors, according to the relevant PRC laws and regulations, the certificate of the other rights of land (土地他項權利證明書) is the proof of the lease between our Controlling Shareholder and us with respect to Parcel A.

China Isotope, the predecessor of our Company and a company owned by the whole people (全民所有制企業), originally obtained the land use right with respect to both of Parcel B and Parcel C by way of allocation (劃撥) from the relevant land administration authority without consideration. According to the relevant PRC laws and regulations, we are not entitled to own or continue to use such parcels of land after China Isotope restructured to China Isotope Company Limited, a limited liability company, and then to our Company, a joint-stock limited company. In August 2016, we agreed to allocate Parcel B and Parcel C to our Controlling Shareholder. As of the Latest Practicable Date, our Controlling Shareholder had not completed the relevant procedures of transfer of title of such two parcels of land. As of the Latest Practicable Date, our Controlling Shareholder had agreed to enter into lease agreements with respect to such three parcels of land and was undergoing internal approval procedure.

We have obtained the undertaking from our Controlling Shareholder, confirming that: (i) the Company could continue to use such Parcel A, Parcel B and Parcel C before entering into the relevant lease agreements; (ii) it will enter into lease agreements with the Company with respect to such three parcels of land as needed by the Company; (iii) it will neither request the Company to cease to use such three parcels of land nor decline to enter into or renew the lease agreements in order to ensure the normal business operations of the Company on such three parcels of land unless it contravenes the requirements of the competent authorities; (iv) there are no claims or disputes with respect to the ownership of such three parcels of land.

### **Directors' View**

As of the Latest Practicable Date, the gross floor area of our owned buildings for which we have not obtained building ownership certificates with defective titles accounted for 18.3% of the total gross floor area of our owned buildings. The parcel of land with defective title for which we have not obtained land use right represented 5.0% of the total site area of the land that we owned (excluding the site area of seven parcels of land as disclosed above). Our Directors are of the view that, although such properties with defective titles are important to our business operations, the fact that we have not

obtained formal title certificates with respect to such properties would not materially and adversely affect our business operations because:

- (i) as of the Latest Practicable Date, we had not been imposed any administrative penalty in connection with such properties with defective title from the relevant governmental authorities;
- (ii) there were no third party claims or disputes with respect to the ownership or use right of such properties as of the Latest Practicable Date;
- (iii) the revenue contribution from the defective properties owned by Jinhui Radiation in 2016 was not material to our Group;
- (iv) CIAE undertook us in writing that it would not take back or demolish the building, and HTA lawfully acquired such building and the usage of such building by HTA would not be adversely affected; and
- (v) the potential demolishment of the two buildings with defective titles in Tianjin and Shenzhen would not materially and adversely affect our business operation because (i) we have not used the relevant building in Tianjin for any purpose after we acquired it and we do not plan to use such building in the future, and (ii) we have new UBT production base to replace the current building in Shenzhen.

### INTERNAL CONTROL AND RISK MANAGEMENT MEASURES

We have implemented, and will continue to enhance, the following on-going measures for the purpose of setting up monitoring controls and reporting mechanisms in respect of regulatory compliance of our business operations, to prevent any future property title defects, ensure timely renewal of necessary licenses and permits, and continuously enhance our corporate governance:

### **Anti-corruption Compliance Measures**

We have established an internal anti-corruption management system governing regulatory compliance by and professional ethics of our employees. Our employee handbook also contains anticorruption terms. Our senior management is responsible for (i) the establishment, improvement and implementation of anti-corruption compliance procedures and internal control measures including corruption risk evaluation and prevention; (ii) the establishment of whistle-blowing and complaint channel and identification of corruption incidents; and (iii) the implementation of corrective measures in response to losses caused by corrupt activities. Our internal audit and supervision department is in charge of enforcing our anti-corruption management system and monitors compliance with applicable anti-corruption laws by our employees. Under the relevant rules of our internal anti-corruption management system and employee handbook, our employees are prohibited from receiving or giving bribes or otherwise engaging in activities that violate applicable anti-corruption laws. Our employees are required to sign a confirmation acknowledging they have read, and undertaking to abide by, the terms set forth in the employee handbook, including the relevant rules relating to anti-corruption. Furthermore, our employees are required to sign a probity undertaking, pursuant to which the employee undertakes that he or she will (i) abide by the anti-corruption procedures and measures; (ii) not receive or give bribes; and (iii) relinquish the cash or gifts to the relevant department if received. Our internal audit and supervision department is responsible for setting up and monitoring the hotline and e-mail account as a whistle-blowing for receiving complaints with respect to corruption incidents and may carry out investigations in response to such complaints and subsequent suspicious

findings. The internal audit and supervision department shall report the investigation results to our senior management when an investigation is completed. Employees who are found to have engaged in improper conduct will be subject to punishments depending on the severity of the conduct.

We have maintained a comprehensive set of promoters management procedures and rules. We require our promoters to maintain valid business licenses and other licenses or permits required for promoting our products, which helps us to disqualify promoters that may have engaged in improper conduct. Our promoters are required to comply with the applicable anti-corruption laws and are forbidden to participate in unfair competition. We will immediately terminate our relationship with such promoter if it is found to engage in unlawful acts. Our agreements with promoters with respect to certain products also contain provisions requiring promoters to bear all consequences as a result of unlawful conduct in its promotion and marketing activities and compensate us for all losses caused by their unlawful activities. As required by the Provisions on the Establishment of Commercial Bribery Records in the Purchase and Sale of Drugs (《關於建立醫藥購銷領域商業賄賂不良記錄的規定》), we enter into probity sales contracts (廉潔銷售合同) with hospitals and other medical institutions, pursuant to which we are forbidden to provide and hospitals and other medical institutions are forbidden to receive briberies. Hospitals or medical institutions are entitled to terminate their relationship with us if we are in violation of such terms and enforce the relevant penalties set forth in the Provisions on the Establishment of Commercial Bribery Records in the Purchase and Sale of Drugs (《關於建立醫藥購銷領域商業賄賂不良記錄的規定》) if we are put in the blacklist of commercial bribery by the regulatory body. Furthermore, the supervision committee of CNNC appointed by the State Council (國務院派駐中核集團監事會) periodically conducted inspections on our business operation including the promoters management. We improved our promoter managements procedures and rules and enhanced the monitoring of our promoters with respect to the ongoing compliance with the promoter agreements and the applicable anti-corruption laws according to the inspection results and recommendations of such supervision committee.

To the best knowledge of our Directors, during the Track Record Period and up to the Latest Practicable Date, except an incident that an employee of a promoter falsified orders of iodine-125 sealed sources from the relevant hospital customer, and another incident that an promoter improperly transferred certain iodine-125 sealed sources from our customer to other hospitals, there were no material breaches of our internal rules or PRC laws and regulations relating to the promotion of our products by our employees and promoters. We ceased the business relationship with the promoter which its employee falsified orders in 2015 and the business relationship with the promoter that improperly transferred certain iodine-125 sealed sources in December 2017. Please see "Business—Pharmaceuticals—Sales and Customers of Pharmaceuticals—Imaging diagnostic and therapeutic radiopharmaceuticals" for details of our enhanced internal control measures relating to sales of iodine-125 sealed sources.

### Other Internal Control and Risk Management Measures

In addition to the above anti-corruption compliance measures:

- we will maintain a list of permits, licenses and approvals that are required in connection
  with our business operations and will update this list from time to time based on our
  experience with local authorities and advice from our external advisors;
- as an internal control measure, we will monitor the attainment of permits, licenses and approvals against the list referred to above and ensure that all relevant permits, licenses and approvals are obtained prior to the commencement of our new facilities;

- we have designated Mr. Wu Laishui, our chief accounting officer and chief legal officer, to assist our Board to perform an internal review of our operations, and identify, assess and manage the risks associated with our operations from time to time to ensure due compliance with laws, rules and regulations in the PRC, see "Directors, Supervisors and Senior Management" in this prospectus for details of Mr. Wu Laishui's experience;
- we have established an audit and risk management committee with written terms of reference in compliance with Code C.3 of the Corporate Governance Code and Corporate Governance Report as set forth in Appendix 14 to the Listing Rules, led by Mr. Hui Wan Fai; the audit committee and one of our executive Directors will supervise the implementation of our internal control measures in order to better monitor our daily operations from the perspective of compliance with applicable rules and regulations;
- we have established a set of policies and procedures for operational processes, including production, safety and financial management;
- we have established a corporate governance policy and will, from time to time, review the internal guidelines and policies by taking account of related laws and regulations, and make any amendment and implement them as necessary;
- we will continue to conduct regular internal training for our employees and management on PRC laws and regulations to ensure awareness and compliance of the relevant laws and regulations; and
- we have implemented various policies and procedures to ensure effective risk management at each stage of our operations, including the production and sales of products, administration of daily operations, financial reporting and recording, fund management, compliance with applicable laws and regulations on environmental protection, production safety and product safety; our Board oversees and manages the overall risks associated with our operations; and we have established an audit and risk management committee to review and supervise the financial reporting process and internal control system of our Group. See "Directors, Supervisors and Senior Management Board Committees Audit and Risk Management Committee" for the qualifications and experience of these committee members as well as a detailed description of the responsibility of our audit committee.

We believe that the enhanced internal measures described above are adequate in identifying and preventing future regulatory non-compliances and property title defects. On the basis of the Sole Sponsor's review of the current and enhanced internal control procedures of our Group, and the due diligence discussions carried out with our Company on the remedial measures that our Company has taken in relation to regulatory compliance of our business operations, to identify past reasons for; and to prevent the recurrence of similar, regulatory non-compliances and property title defects, our Directors believe, and the Sole Sponsor have no reason to doubt that the current and enhanced internal control measures are adequate and effective to address the non-compliances as set out above, and they are not aware of any facts or circumstances that might affect the suitability of our Directors and our suitability for listing.

Upon the Listing of our H Shares on the Stock Exchange, the transactions between the Group and our connected persons will constitute our connected transactions or continuing connected transactions under Chapter 14A of the Listing Rules.

### CONNECTED PERSONS

Upon the Listing, the following entities with whom we have entered into certain transactions in our ordinary and usual business will become our connected persons:

### CNNC

As at the Latest Practicable Date, our controlling shareholder, CNNC, owned 98.43% of our total issued share capital directly and indirectly through its controlled entities, i.e., CIAE, NPIC, CNNC Fund, 404 Company and Baoyuan Investment. Immediately after the completion of the Global Offering, CNNC will directly and indirectly through CIAE, NPIC, CNNC Fund, 404 Company and Baoyuan Investment, hold approximately 73.83% of our total enlarged issued share capital (assuming no Over-allotment Option is exercised). Therefore, CNNC and its associates will constitute our connected persons under Chapter 14A of the Listing Rules.

### • CNNC Tongxing

As at the Latest Practicable Date, the Company and CNNC (through one of its subsidiary) held 51% and 49% equity interests in CNNC Tongxing, respectively. Immediately after the completion of the Global Offering, CNNC will continue to be our controlling shareholder. Therefore, CNNC Tongxing and its associates will constitute our connected subsidiary under Chapter 14A.16 of the Listing Rules.

### Headway

As at the Latest Practicable Date, the Company and CNNC held 54.1% and 27.9% equity interests in Headway, respectively. Immediately after the completion of the Global Offering, CNNC will continue to be our controlling shareholder. Therefore, Headway is a connected subsidiary of our Company under Rule 14A.16(1) of the Listing Rules, and Headway and its subsidiaries will constitute our connected persons under Chapter 14A of the Listing Rules.

### SUMMARY OF CONTINUING CONNECTED TRANSACTIONS

The following table sets forth a summary of our continuing connected transactions:

### **Exempt Continuing Connected Transactions**

Nature of the transaction	Applicable Listing Rules	Waiver sought	Proposed annual caps for the year ending December 31
Trademark License Agreement with CNNC	14A.76(1)(a)	N/A	(RMB'000) N/A
2. Custodian Service Agreement with CNNC	14A.76(1)(a)	N/A	N/A
3. Guarantee Agreement for Loan Facilities Granted to Headway	14A.89, 14A.90	N/A	N/A

### **Non-exempt Continuing Connected Transactions**

### A. Continuing connected transactions subject to reporting, annual review and announcement requirements but exempt from strict compliance with the independent shareholders' approval requirement

Nature of the transaction	Applicable Listing Rules	Waiver sought	Proposed annual caps for the year ending December 31  (RMB'000)
Property & Equipment Leasing and Related Services     Framework Agreement with CNNC	14A.34, 14A.35, 14A.49, 14A.52, 14A.53 to 59, 14A.71 and 14A.76(2)(a)	Announcement requirement	2018: 43,000 2019: 45,000 2020: 40,000
2. Products and Services Supply Framework Agreement with CNNC	14A.34, 14A.35, 14A.49, 14A.52, 14A.53 to 59, 14A.71 and 14A.76(2)(a)	Announcement requirement	2018: 83,100 2019: 82,800 2020: 85,000
3. Products and Services Purchase Framework Agreement with CNNC	14A.34, 14A.35, 14A.49, 14A.52, 14A.53 to 59, 14A.71 and 14A.76(2)(a)	Announcement requirement	2018: 72,000 2019: 79,200 2020: 79,500
4. Exclusive Sales Agreement for Radioactive Sources with CIAE	14A.34, 14A.35, 14A.49, 14A.52, 14A.53 to 59, 14A.71 and 14A.76(2)(a)	Announcement requirement	2018: 55,080 2019: 67,320
5. Cobalt-60 Radioactive Sources Supply and Related Services Framework Agreement with CNNC Tongxing	14A.34, 14A.35, 14A.49, 14A.52, 14A.53 to 59, 14A.71 and 14A.76(2)(a)	Announcement requirement	2018: 19,400 2019: 21,200 2020: 21,200
6. Consultation Service Fee Framework Agreement with CNNC Tongxing	14A.34, 14A.35, 14A.49, 14A.52, 14A.53 to 59, 14A.71 and 14A.76(2)(a)	Announcement requirement	2018: 22,400 2019: 24,700 2020: 24,700
7. Carbon-14 Raw Materials Supply Framework Agreement with Headway	14A.34, 14A.35, 14A.49, 14A.52, 14A.53 to 59, 14A.71 and 14A.76(2)(a)	Announcement requirement	2018: 5,500 2019: 6,000 2020: 3,000

### B. Continuing connected transactions subject to reporting, annual review, announcement and independent shareholders' approval requirements

Nature of the transaction	Applicable Listing Rules	Waiver sought	Proposed caps for the period from the Listing Date to the earlier of i) one year from the Listing Date; or ii) 2018 annual general meeting of the Company to be convened in early 2019
		_	(RMB '000)
8. Financial Services Framework Agreement with CNNC	14A.34, 14A.35, 14A.36, 14A.49, 14A.52, 14A.53 to 59 and 14A.71	Announcement and independent shareholders' approval requirements	

Na	ture of the transaction	Applicable Listing Rules	Waiver sought	Proposed caps for the period from the Listing Date to the earlier of i) one year from the Listing Date; or ii) 2018 annual general meeting of the Company to be convened in early 2019
•	Deposit services			(RMB '000)
	(a) Maximum outstanding daily balance			3,082,666
•	(b) Interest income Settlement, entrusted loans and other financial services			45,778
	(a) Maximum daily outstanding balance of entrusted loans provided by our Group through CNNCFC			417,500
	(b) Service fees for settlement, entrusted loans and other financial services			125
•	Finance leasing fees			2,763

### **EXEMPT CONTINUING CONNECTED TRANSACTIONS**

The following transactions have been and will be entered into in the ordinary and usual course of business of our Group and on normal commercial terms or better, and our Directors expect that the highest applicable percentage ratios (other than the profit ratio) calculated for the purpose of Chapter 14A of the Listing Rules will not exceed 0.1% on an annual basis. Such transactions will be exempt from the reporting, annual review, announcement and independent shareholders' approval requirements under Rule 14A.76 (1)(a) of the Listing Rules.

### 1. Trademark License Agreement

**Parties:** CNNC (the licensor); and

The Company (the licensee).

Principal Terms: The Company entered into a trademark license agreement (the "Trademark License Agreement") with CNNC on June 16, 2018, pursuant to which CNNC agreed to grant a non-exclusive license to the Group to use a number of registered trademarks owned by CNNC (the "Licensed Trademarks") on a royalty-free basis. The Trademark License Agreement will take effect from the Listing Date and our right to use the Licensed Trademarks will expire upon CNNC ceasing to be our controlling shareholder. The Group will use the Licensed Trademarks within the scope stipulated in the Trademark License Agreement. For details of the Licensed Trademarks, please refer to "Appendix VI — Statutory and General Information — 2. Further Information about Our Business — B. Our Intellectual Property Rights — (a) Trademarks — The Trademarks Involved in the Trademark License Agreement)".

Reasons for the Transaction: Our Company is a principal subsidiary of CNNC and has been CNNC's major sector of nuclear technology application. We have used the Licensed Trademarks for several years and have received market recognition. We believe that to continue to use the Licensed Trademarks after the completion of the Global Offering is in the best interests of the Group and the Shareholders as a whole. The Directors and the Sole Sponsor are of the view that the Trademark License Agreement was entered into on normal commercial terms and a longer duration of the agreement will avoid any unnecessary business interruption and help ensure the long-term stable

business development and continuity of our market recognition, and it is normal business practice for trademark license agreement of similar type to be of such duration.

**Historical Amount**: During the Track Record Period, we used the Licensed Trademarks on a royalty-free basis. Therefore, the transaction amount in relation to the Licensed Trademarks granted by CNNC to the Group was nil as at December 31, 2015, 2016 and 2017.

### 2. Custodian Service Agreement

**Parties:** CNNC (the trustor); and

the Company (the manager).

**Principal Terms**: On June 16, 2018, we entered into a custodian service agreement (the "Custodian Service Agreement") with CNNC, pursuant to which we will manage and operate CNNC Dalian Institute of Applied Technology (the "Custodian Target Company") on behalf of CNNC. According to the Custodian Service Agreement, the management and operational powers that we can exercise in relation to the Custodian Target Company include, but do not limit to, (i) approving the annual business plan and financial budget; (ii) approving material biddings, major investments, major borrowings, guarantees and litigation matters; and (iii) attending internal decision-making meetings, participating in discussions and advising on the production and business operations of the Custodian Target Company. The Custodian Target Company must obtain our prior written consent to implement any decision on its main business and management matters made at its internal meetings. The Custodian Service Agreement will be valid for an indefinite period of time unless both parties agreed to terminate the agreement. The Company will not share any profit or loss of the Custodian Target Company.

On June 16 2018, the Company entered into a separate agreement with the Custodian Target Company, pursuant to which, the Custodian Target Company will pay the Company annual custodian service fee based on the actual administrative cost incurred by the Company for the custodian service provided by the Company pursuant to the Custodian Service Agreement each year, including but not limited to traveling and accommodation costs, etc.

Reasons for the Transaction: Although the Custodian Target Company is a public institute owned by MOF, the ultimate control and management power is vested in CNNC as so designated by MOF. Regardless that CNNC has further requested our Company to exercise the control and management power, CNNC retains its ultimate control right over the Custodian Target Company. As such, the Custodian Target Company is an associate of CNNC pursuant to Rule 14A.13(3) of the Listing Rules. The Custodian Target Company is primarily engaged in the irradiation services and the production of electronic components for nuclear-related equipment, such as a flow-meter, and switches for detective instruments, etc. The Custodian Target Company suspended its irradiation services in 2013 due to relocation of its irradiation-related production plants and facilities. It has resumed the irradiation service around February 2018 and started to procure raw materials from our Group in the end of 2017, in particular CNNC Tongxing, under the Products and Services Supply Framework Agreement to be entered between CNNC and the Company. For details of such agreement, please refer to "Connected Transactions - Non-exempt Continuing Connected Transaction - Products and Services Supply Framework Agreement". As of the Latest Practicable Date, the Custodian Target Company has a registered capital of RMB3.88 million. For each of the three years ended December 31, 2015, 2016 and 2017, the Custodian Target Company had total assets of approximately RMB60.59

million, RMB62.98 million and RMB63.96 million, respectively; had revenues of approximately RMB42.03, RMB31.01 million and RMB25.75 million, respectively; and recorded profits of approximately RMB 3.56 million, RMB 4.76 million and RMB5.07 million, respectively. As compared to the Company, the scale of operation of the Custodian Target Company is much smaller in terms of total assets, revenues and profits. The financial results of the Custodian Target Company are not consolidated into the Group's financial statements. MOF commissioned CNNC to manage the Custodian Target Company at nil consideration. Such commission derives from the administrative arrangement between MOF and CNNC and the financial results of the Custodian Target Company are not consolidated into the consolidated financial statement of CNNC. Based on the historical relationship between the Company and CNNC and the similarity of the irradiation service business of the Custodian Target Company and us, since 2013, CNNC has commissioned the Company to manage the Custodian Target Company in order to avoid potential competition between CNNC and the Group, and to safeguard the interests of the Company and its Shareholders in respect of irradiation services. As confirmed by the Company's PRC counsel, King & Wood Mallesons, the Custodian Service Agreement does not require the consent of the MOF as the owner of the Custodian Target Company.

The Custodian Target Company and the Company operate in different geographic areas and target different clients. As a common market practice, the service range of an irradiation station is usually within 300 kilometers. It is neither practicable nor cost-effective for an irradiation station to provide services beyond 300 kilometers. The Custodian Target Company operates its business mainly in Dalian, Liaoning Province while CNNC Isotope & Radiation (Changchun) Radiation Technology Co., Ltd. (the Company's subsidiary which is also engaged in irradiation business) mainly operates in Changchun, Jilin Province. The distance between the irradiation station of the Custodian Target Company and CNNC Isotope & Radiation (Changchun) Radiation Technology Co., Ltd. is more than 600 kilometers, which is far more than the usual service range of an irradiation station. The target clients of CNNC Isotope & Radiation (Changchun) Radiation Technology Co., Ltd. are mainly traditional Chinese medicine and food companies, as Jilin Province focuses on traditional Chinese medicine planting and processing industries, while the clients of Custodian Target Company are mainly medical equipment, seafood processing and local food companies, as Dalian is the largest port in Northeast China and an important industrial base. In addition, the Company can exercise various management rights over the Custodian Target Company and have veto rights in its operation and production plans and major investment decisions. The Company has established Irradiation Business Department to manage the client resources of its subsidiaries and the Custodian Target Company. If there exists competition between the Group and the Custodian Target Company, the Company will take measures to eliminate the competition in a timely manner. There also exists synergy between the Group and the Custodian Target Company. The Custodian Target Company has rich experience in irradiation services and holds extensive research and development knowledge and technologies in irradiation-related market. By exercising the broad management rights in the Custodian Target Company, in particular by participating in various meetings in relation to the Custodian Target Company's operation and development, the Group is able to exchange up-to-date research and development knowledge and technologies with the Custodian Target Company, so as to improve the Group's overall performance in the irradiation business area. We incurred an insignificant amount of administrative costs in managing the Custodian Target Company, which mainly consists of traveling and accommodation costs. For example, the Group only incurred approximately RMB0.11 million, RMB0.53 million and RMB0.15 million traveling and accommodation costs in 2015, 2016 and 2017, respectively. The Company also expects that such costs will remain insignificant in the future. In light of the above, the Directors are of the view that the provision of custodian services is in line with the Group's business needs and economic interests and the interest of the Shareholders as a whole.

**Historical Amounts**: For each of the three years ended December 31, 2015, 2016 and 2017, respectively, the transaction amount in relation to the custodian services was nil.

### 3. Guarantee Agreement for Loan Facilities Granted to Headway

**Parties**: The Company (the guarantor),

CNNC Technology (the guarantor),

HTA (the guarantor),

Guangzhou Yanghui Investment and Consultation Co, Ltd. ("Yanghui Investment", the

guarantor), and

China Development Bank (the guarantee).

**Principle Terms**: The Company entered into a guarantee agreement with CNNC Technology, HTA, Yanghui Investment and China Development Bank on April 11, 2017 (the "Guarantee"). Pursuant to the Guarantee, our Company, CNNC Technology, HTA and Yanghui Investment undertakes to provide guarantee to China Development Bank in respective of a bank loan of RMB200 million granted by China Development Bank to Headway as to 34.1%, 27.9%, 20% and 14.72%, respectively. The Guarantee will be effective from the date of the Guarantee and expire upon two years after the last payment due date of the bank loan, namely April 10, 2024.

Reasons for the Transaction: As of the Latest Practicable Date, our Company, CNNC Technology, HTA and Yanghui Investment held 34.1%, 27.9%, 20% and 14.72% interest in Headway, respectively. HTA is a subsidiary of our Company. CNNC Technology is an associate of CNNC, our controlling shareholder. To the best knowledge and belief of the Directors, China Development Bank is an Independent Third Party of the Group. The Guarantee was granted by us in our capacity as a shareholder of Headway, and was procured in the proportion of the interest held directly by each of our Company, CNNC Technology, HTA and Yanghui Investment in Headway, respectively, on a several and not joint basis. Given Headway is our connected subsidiary, in which CNNC indirectly holds 34.1% equity interests, (i) the guarantees provided by our Company and HTA in respect of Headway's loan facilities under the Guarantee constitutes financial assistance provided by our Group to a connected person under Rule 14A.89 of the Listing Rules; and (ii) the guarantee provided by CNNC Technology in respect of Headway's loan facilities under the Guarantee constitutes financial assistance received by our Group from a connected person under Rule 14A.90 of the Listing Rules. The Guarantee was entered into in the ordinary course of business for the purpose of facilitating the grant of the loan facilities to Headway and is not secured by the assets of our Group. It is a common practice in the PRC that the lending banks require the provision of corporate guarantees or other forms of security from a borrower's shareholders. The Guarantee will continue after the Listing and will constitute financial assistance. We have not charged any fees in relation to the provision of the guarantees and will continue to provide the guarantee at no charge after the Listing. The Directors are of the view that the Guarantee is fair and reasonable, on normal commercial terms and in our Shareholders' interest as a whole.

### NON-EXEMPT CONTINUING CONNECTED TRANSACTIONS

A. Continuing connected transactions subject to the reporting, annual review and announcement requirements but exempt from strict compliance with the independent shareholders' approval requirement

The following transactions have been and will be entered into in the ordinary and usual course of business of the Group and on normal commercial terms or better, and our Directors expect that the highest applicable percentage ratio (other than the profit ratio) calculated for the purpose of Chapter 14A of the Listing Rules will be more than 0.1% but less than 5% on an annual basis. Such transactions will be subject to reporting, annual review and announcement requirements but exempt from strict compliance with the shareholders' approval requirements under Rule 14A.76(2)(a) of the Listing Rules.

### 1. Property & Equipment Leasing and Related Services Framework Agreement

Parties: CNNC (the lessor and service provider); and

the Company (the lessee and service recipient).

Principal Terms: The Company entered into the property & equipment leasing and related services framework agreement (the "Property & Equipment Leasing and Related Services Framework Agreement") with CNNC on June 16, 2018, pursuant to which we will rent or use a number of properties and equipment from CNNC and/or its associates, and CNNC and/or its associates will provide us with supporting services relating to the properties and equipment and other services. Such properties and equipment are mainly used for our production, operation and management, including but not limited to: (i) office buildings, land and office facilities; (ii) production plants (mainly used to produce technetium-99m labeled injections, fluorine-18-FDG injections and iodine-125 sealed source etc.); (iii) production facilities in relation to waste liquid and gas emissions and treatment services and others; (iv) production equipment (mainly high-power accelerator); (v) common areas and facilities (including kindergarten, water and electricity facilities and other facilities); and (vi) services associated with employee education, safety production and research and development of technologies. Please also refer to "Business — Properties" for details of the buildings/plants and lands leased by us from CNNC and its associates. In particular, there are certain parcels of lands for which CNNC have not yet to enter into specific lease agreements with us, pending CNNC's relevant internal procedures. However, CNNC expects to complete such internal procedures by no later than the Listing Date, and the Property & Equipment Leasing and Related Services Framework Agreement will cover all the properties, plants and facilities leased by the Company and its subsidiaries from CNNC and its associates. The Property & Equipment Leasing and Related Services Framework Agreement will be effective from the Listing Date and expire on December 31, 2020, subject to renewal as may be agreed upon by both parties.

**Reasons for the Transaction**: Historically the Group has rented or used a number of properties and equipment of CNNC and/or its associates for the purpose of the Group's production, operation and management, and CNNC and/or its associates have provided us with general supporting services relating to such properties and equipment. In view of (a) the quality of the equipment and facilities provided by CNNC in the field of nuclear technology; (b) the Group's long-term business relationship with CNNC; and (c) the fact that certain key equipment and facilities were tailor made for our Group's production purpose, the leasing of such properties and equipment is in line with the Group's business needs and economic interests and Shareholders' interests as a whole. Relocation or switch to new

equipment and facilities will give rise to additional costs and expenses, cause interruption to our production and require additional training costs and time. In addition, the high-quality employee education services, safety production training services and scientific research-related services provided by CNNC enable the Group to improve its management skills, to enhance its safety production and to improve its scientific research capability. In light of the above, the Directors are of the view that it is in the Shareholders' best interest to continue the current arrangement with CNNC and/or its associates in relation to the lease of the properties, equipments and the related services.

**Pricing Policy**: We determine the rents and service fees in accordance with the following criteria:

- The rental for properties and equipment for administrative and other general purposes shall be equal to or not higher than the prevailing market price offered by an Independent Third Party under the same circumstances.
- As for the service fees for waste liquid and gas treatment and disposal, the Group will
  refer to the annual volume of the waste liquid and gas treated and/or disposed and the
  service fees calculated based on the staff costs and facility costs.
- The service fees in respect of employee education, safety production and scientific research will be determined with reference to several factors, including the relevant costs incurred by CNNC and/or its associates in providing such service and our business scale.
- The rental for certain properties and equipment designed with industry specialties will be determined by the parties through fair negotiation based on the costs of the relevant services provided by CNNC and/or its associates, such as equipment depreciation and staff costs.

**Historical Amounts**: For each of the three years ended December 31, 2015, 2016 and 2017, respectively, the amounts of the transactions in connection with the Property & Equipment Leasing and Related Services Framework Agreement are set out as follows:

	Historical Amounts (RMB'000)		
	2015	2016	2017
Property & equipment leasing and related services	18,646	19,894	20,165

**Annual Caps**: For each of the three years ended December 31, 2020, the estimated annual caps for property & equipment leasing and related services are set out below:

	Proposed annual caps for the year ending December 31 (RMB'000)		
	2018	2019	2020
Property & equipment leasing and related services <sup>1</sup>	43,000	45,000	40,000

As for the rental for the Group's office building leased from CNNC and/or its associates and payable by the Group to CNNC and/or its associates, the Group has prepaid RMB13,440,000 as at February 9, 2010. Such amount has been included in the annual caps.

The Basis for Annual Caps: The above annual caps are determined by reference to the following factors:

• The rentals for the existing properties, equipment and facilities leased from CNNC and/or its associates, and the service fees for waste liquid and gas treatment and disposal provided

by CNNC are expected to increase by 10% per year for the three years ending December 31, 2020, taking into considerations that:

- o the current area space of the properties and the quantities and types of equipment and facilities leased by the Group from CNNC and/or its associates.
- the expected market price for the leased properties and equipment and the expected changes in market price after renewal of such leases.
- o the expected volume of the waste liquid and gas treated and/or disposed based on the Group's business development plan, the raising standard for waste liquid and gas emission in compliance with applicable environmental protection laws and regulations, and the increase of processing costs for the waste liquid and gas.
- o the Group's estimated demand for its production plants, equipment and related supporting services needed based on its business expansion and its estimated production capacity.
- o the rental for the Company's office building leased from CNNC, being RMB 3,078,300 for 2017 and expected to increase by 10% in each of the following three years;
- o the rental for new production and/or research properties leased by HTA and BNIBT from CNNC, with an aggregate area space of approximately 11,000 square meters, was RMB 2 million for the year ended December 31, 2017, and is expected to be RMB 5.5 million for the year ending December 31, 2018, RMB 6 million for the year ending December 31, 2019, and RMB6.5 million for the year ending December 31, 2020, respectively.
- The Company is developing its gel generator stacking business, and expects to lease relevant equipment for stacking hole service from NPIC, which will incur service fee of approximately RMB10 million per year in the following three years ending December 31, 2020.

### 2. Products and Services Supply Framework Agreement

**Parties**: CNNC (the purchaser); and

the Company (the supplier).

**Principal Terms**: The Company entered into a products and services supply framework agreement (the "**Products and Services Supply Framework Agreement**") with CNNC on June 16, 2018, pursuant to which CNNC and/or its associates would purchase the following products from the Group: radioactive source products, radioactive instruments and pharmaceuticals. The Group will also provide detection, recycling, transportation, reloading and other ancillary services related to the sales of such products and research and development services related to research and development projects. The term of the Products and Services Supply Framework Agreement shall start from the Listing Date until December 31, 2020, subject to renewal as may be agreed upon by both parties.

**Reasons for the Transaction**: The Group sells radioactive source products, radioactive instrument and pharmaceuticals to CNNC and/or its associates in its ordinary and usual business. For example, we sell isotope products to CNNC and/or its associates for their engineering projects and

radioactive products to their hospitals. Serving as the major force for the nuclear technology application business of CNNC, the provision of research services by the Group to CNNC could facilitate the success of certain key projects by using centralized resources with synergy effect of enhancing the competitiveness of both CNNC and the Group along the whole industrial chain.

Pricing Policy: The product prices to be paid to the Group by CNNC and/or its associates will be determined by relevant parties through fair negotiation, and shall not be more favorable than those offered by us to Independent Third Parties in the latest three months. The Group will refer to historical prices of the products, collect information on the market prices and profit margins of the relevant products through channels like industry associations or industry peers, and price based on the average market profit margins or cost-plus principle to ensure that the products and services provided by us to CNNC and/or its associates are on fair and reasonable terms. The relevant costs include raw materials, accessories, depreciation, labor, energy, management fees, financial costs, etc. If our Group also provides transportation and other related services, the costs of such services will be reflected in the sale prices accordingly. As certain products are provided exclusively by our Group, we will ensure that the terms on which these transactions are entered into between us and CNNC and/or its associates will not be more favorable than those offered by us to Independent Third Parties under the same circumstances. The pricing for the research services provided by us to CNNC and/or its associates shall be mainly determined by reference to the cost of the research services through negotiation between both parties.

**Historical Amounts**: For each of the three years ended December 31, 2015, 2016 and 2017, the amounts of transactions involved in the products and services supply are set out as follows:

	Historical Amounts (RMB'000)		
	2015	2016	2017
Products and services supply	71,020	54,623	53,664

**Annual Caps**: For each of the three years ending December 31, 2020, the estimated annual caps for the products and services supply are set out as below:

	year en	year ending December 31 (RMB'000)		
	2018	2019	2020	
Products and services supply	83,100	82,800	85,000	

The Basis for Annual Caps: The above annual caps are determined by reference to the following factors:

- The historical transaction amounts and market price (as applicable) of each type of materials and service and the relevant industry development trend.
- Our Company is the major supplier of certain types of radioactive sources for CNNC and its associates to build and operate nuclear power station. Therefore, the Company will refer to the mid-term and long-term nuclear power development plan of the National Energy Administration to estimate CNNC's purchase demand for radioactive sources from us. Based on the nuclear power development plan of the National Energy Administration for year 2030, it is estimated that the amount of radioactive sources to be purchased by CNNC and/or its associates from us in the following three years will increase by around 10% yearly on average. However, such estimate is subject to specific approval of the National Energy Administration on nuclear power station each year.

- Based on the historical amount of the radioactive instruments and pharmaceuticals purchased by CNNC and/or its associates from us, the historical import cost for radioactive instruments and cost of raw materials for pharmaceuticals, etc. in the past three years, we expect that the amount of radioactive instruments and pharmaceuticals to be purchased by CNNC and/or its associates from us will increase by approximately 10% 15% annually in the next three years;
- The expected progress of the key research projects initiated by CNNC and undertaken by us. In particular, CNNC paid RMB20 million to our Group for reach projects relating to gamma knife in 2017. Based on the above, the research fees to be paid by CNNC and/or its associates to us are estimated to be around RMB10 million on average for each of the following three years.
- It is expected that the Custodian Target Company will purchase approximately RMB7 million of cobalt-60 radioactive sources from CNNC Tongxing for the year of 2018 after it resumes its irradiation service. Such transaction amount has taken into account the following factors:
  - the Custodian Target Company's production capacity;
  - the half-life period of cobalt-60 radioactive sources; and
  - the market demand for irradiation services provided by the Custodian target Company when determining the Transaction Amount.

Also due to the radioactivity status and half-life period of cobalt-60, the Custodian Target Company does not expect to purchase any additional cobalt-60 radioactive sources from CNNC Tongxing for the year of 2019 and 2020.

### 3. Products and Services Purchase Framework Agreement

Parties: The Company (the purchaser); and

CNNC (the supplier).

**Principal Terms**: The Company entered into a products and services purchase framework agreement (the "**Products and Services Purchase Framework Agreement**") with CNNC on June 16, 2018, pursuant to which CNNC and/or its associates will provide the Group: (i) various types of raw and auxiliary materials, production equipment and other products; (ii) transportation containers (including related design and manufacturing services); (iii) technical testing services; (iv) encapsulation and processing services of cobalt-60 radioactive sources; and (v) scientific research services related to high-end irradiation research and development. The term of the Products and Services Purchase Framework Agreement shall start from the Listing Date and expire on December 31, 2020, subject to renewal as may be agreed upon by both parties.

**Reasons for the Transaction**: Historically CNNC and/or its associates have been the suppliers of raw and auxiliary materials, production equipment, technical testing, and irradiation services to the Group in its ordinary course of business. CNNC has a leading position in the field of nuclear materials processing, the production of nuclear production equipment, nuclear technology testing and irradiation research and development. As a result of the long-term cooperation between our Group and CNNC and/or its associates in this regard, CNNC and/or its associates have accumulated knowledge and understanding in our business needs for the products and services. Therefore, our Directors are of the

view that it is efficient for us to continue such transactions with CNNC and/or its associates and it is in the best interest of the Company and the Shareholders as a whole.

**Pricing Policy**: We will determine the purchase prices by taking into account the following factors:

- The costs for relevant products and services, including labor costs and material costs.
- The Group will regularly contact its suppliers (including CNNC and/or its associates and independent suppliers) to understand the market conditions.
- the Group will organize public tendering process in relation to significant purchase orders in accordance with our internal tendering rules and will determine the final price based on the results of such process.

**Historical Amounts**: For each of the three years ended December 31, 2015, 2016 and 2017, the amounts of transactions involved in the products and services purchase are set out as follows:

	His	(RMB '000)	
	2015	2016	2017
Products and services purchase	59,050	59,476	84,657

**Annual Caps**: For each of the three years ended December 31, 2020, the estimated annual caps for the products and services purchase are as follows:

	the D	d annual year end ecember : RMB '000	ing 31
	2018	2019	2020
Products and services purchase	72,000	79,200	79,500

The Basis for Annual Caps: The above annual caps are determined by reference to the following factors:

- The historical transaction amounts between the Group and CNNC and/or its associates during the Track Record Period, including the historical procurement costs.
- The cost for the products and services is expected to increase by 10% annually in the following three years, taking into account:
  - (i) the expected increase of unit price for raw and ancillary materials and production equipment;
  - (ii) the service life and evaluation period of transportation containers, market prices of transportation containers offered by independent third parties;
  - (iii) the expected increase of site cost, labor cost, maintenance cost and safety & security cost for encapsulation and processing services of cobalt-60 radioactive sources;
  - (iv) the raising standard for technical testing and the increasing demand for technical testing; and
  - (v) the demand and development plan for scientific research relating to high-end irradiation.

## 4. Exclusive Sales Agreement for Radioactive Sources

**Parties**: The Company (the purchaser); and

CIAE (the supplier).

**Principal Terms**: The Company entered into an exclusive sales agreement (the "Exclusive Sales Agreement for Radioactive Sources") in respect of radioactive sources with CIAE on August 30, 2016, pursuant to which the Company will be the exclusive distributor of the standard radioactive sources and non-destructive testing radioactive sources produced by CIAE and/or its associates. The term of the Exclusive Sales Agreement for Radioactive Sources shall start from the Listing Date and expire on December 31, 2019, subject to renewal as may be agreed on by both parties.

Reasons for the Transaction: CIAE's Division of Radiation Metrology is the highest radiometrological organization in China, which was accredited by the China National Accreditation Service for Conformity Assessment (CNAs) in 2013. It is one of the few enterprises that are qualified to issue standard radioactive source certificate, and has accumulated extensive experience in the production of standard radioactive sources and non-destructive testing radioactive sources. To avoid business competition between the Group and CIAE and/or its associates in respect of standard radioactive sources and non-destructive testing radioactive sources, and to consolidate market resources, the Company entered into the Exclusive Sales Agreement for Radioactive Sources with CIAE. For details of the status of the business competition between us and CIAE in respect of the radioactive sources, please refer to the section, "Relationship with the Controlling Shareholder — Delineation of Business and Competition".

**Pricing Policy**: The price to be paid by the Company for purchasing the products to be supplied by CIAE and/or its associates is determined by the relevant parties through fair negotiation, taking into account the costs of radioactive raw and auxiliary materials, labor costs, utilities costs, transportation costs, depreciation of fixed assets, taxes, management costs and profit. Our Group will also compare the purchase price with the relevant historical prices offered by the CIAE and other Independent Third Parties before the entering into the transactions pursuant to the Exclusive Sales Agreement for Radioactive Sources.

**Historical Amount**: For each of the three years ended December 31, 2015, 2016 and 2017, there was no sales transaction between the Group and CIAE and/or its associates.

**Annual caps**: For each of the two years ending December 31, 2019, the estimated annual caps for the exclusive sales of radioactive sources are set out below:

	Proposed annual caps fo the year ending December 31 (RMB'000)	
	2018	2019
Standard radioactive sources	3,780	4,320
Non-destructive testing radioactive sources	51,300	63,000
Total	55,080	67,320

The Basis for Annual Caps: The above annual caps are determined by reference to the following factors:

• The Group's historical procurement costs (including raw material costs and manufacturing costs), the expected market conditions, increasing market demand and cost inflation. In

- recent years, the market demand for standard radioactive sources and non-destructive testing radioactive sources increases by approximately 5%-10% per year.
- Based on the historical production amounts and sales volume of radioactive sources of CIAE and/or its associates in 2015, 2016 and 2017, we estimate that our purchase amount of the radioactive sources to be produced by CIAE would increase by approximately 5% to 10% annually in the following three years.

## 5. Cobalt-60 Radioactive Sources Supply and Related Services Framework Agreement

**Parties**: The Company (the purchaser); and

CNNC Tongxing (the supplier).

**Principal Terms**: The Company entered into a cobalt-60 radioactive sources supply and related services framework agreement (the "Cobalt-60 Radioactive Sources Supply and Related Services Framework Agreement") with CNNC Tongxing on June 16, 2018, pursuant to which the Group will purchase cobalt-60 radioactive sources from CNNC Tongxing and/or its associates, and CNNC Tongxing and/or its associates will provide related services such as transportation and reloading in connection with the sales of cobalt-60 radioactive sources. The term of the Cobalt-60 Radioactive Sources Supply and Related Services Framework Agreement shall start from the Listing Date and expire on December 31, 2020, subject to renewal as may be agreed upon by both parties.

**Reasons for the Transaction**: CNNC Tongxing is the exclusive domestic supplier of cobalt-60 radioactive sources in the PRC. Due to the relationship between our Group and CNNC Tongxing, it is easier to purchase cobalt-60 radioactive sources from CNNC Tongxing and more efficient to recycle the waste, so as to reduce the costs of import, transportation and waste treatment and disposal relating to importing cobalt-60 radioactive sources overseas.

**Pricing Policy**: The terms of purchasing cobalt-60 radioactive source from CNNC Tongxing should be no less favorable than the terms of the agreements entered into between the Group and Independent Third Parties overseas. The purchase prices payable to CNNC Tongxing and/or its associates by us shall be determined by the parties through fair negotiation with reference to the production costs of the cobalt-60 radioactive sources and the prevailing price in the international market.

**Historical Amounts**: For each of the year ended December 31, 2015, 2016 and 2017, respectively, the amounts of transactions in respect of the cobalt-60 radioactive sources supply and related services were as follows:

	Historical Amount (RMB'000)		
	2015	2016	2017
Cobalt-60 radioactive sources supply and related services	17,788	5,614	8,726

**Annual Caps**: For each of the three years ended December 31, 2020, the estimated annual caps for the cobalt-60 sources supply and the related services are set out as below:

	Proposed annual caps for the year ending December 31 (RMB '000)		
	2018	2019	2020
Cobalt-60 radioactive sources supply and related services	19,400	21,200	21,200

The Basis for Annual Caps: The above annual caps are determined by reference to the following factors:

- The expected demand of cobalt-60 radioactive sources for the Group's existing seven irradiation stations, the Group's existing storage amount of cobalt-60 radioactive sources and the radioactivity level of such cobalt-60 radioactive sources. In particular,
  - the half-life period of cobalt-60 radioactive sources is approximately five years;
  - the Group started to purchase cobalt-60 radioactive sources to replenish its irradiation stations in 2011 and 2012;
  - the Group's existing irradiation stations requires 700,000 to 800,000 Ci of cobalt-60 radioactive sources per year on average; and
  - o replenishment of cobalt-60 radioactive sources for irradiation stations is required from time-to-time, as the radioactivity level of cobalt-60 declines at a rate of approximately 12% per year.
- The Group's plan to purchase and/or operate additional irradiation stations in the next three years. As disclosed in "History, Development and Corporate Structure" of this prospectus, the Company is in the process of acquiring the operating assets, including an irradiation station, of Saiwang (Taizhou) Irradiation Technology Application Co., Ltd.
- The historical and expected sales prices and production costs (including raw material cost, labor cost and production facility cost etc.) of cobalt-60 radioactive sources supplied by CNNC Tongxing and/or its associates.
- The production capacity of cobalt-60 radioactive sources of CNNC Tongxing and its associates.

## 6. Consultation Service Fee Framework Agreement

Parties: CNNC Tongxing (the service receiver); and

the Company (the service provider).

**Principal Terms**: The Company entered into a consultation service fee framework agreement (the "Consultation Service Fee Framework Agreement") with CNNC Tongxing on June 16, 2018, pursuant to which the Company will provide technical support and consulting services to CNNC Tongxing and/or its associates relating to the distribution channels and customer resources of cobalt-60 radioactive sources, and CNNC Tongxing and/or its associates will pay us consultation service fees. The term of the Consultation Service Fee Framework Agreement shall start from the Listing Date and expire on December 31, 2020, subject to renewal as may be agreed upon by both parties.

**Reasons for the Transaction**: In response to the PRC government's requirements for the domestication of cobalt-60 radioactive sources and in light of the strategic transformation of the Group, the Company is no longer engaged in the import and sale of cobalt-60 radioactive sources and has offered the corresponding market channels and customer resources, and provided marketing and technical support, to CNNC Tongxing and/or its associates. In turn, CNNC Tongxing and/or its associates pay the Company consulting fees for the sale of cobalt-60 radioactive source products.

**Pricing Policy**: The consulting service fees to be paid by CNNC Tongxing and/or its associates to the Company are determined by the relevant parties through fair negotiation, taking into account the

following factors: our historical sales revenue of cobalt-60 radioactive sources, the demand trends of cobalt-60 radioactive sources over the next three years, and the estimated costs of the consulting services provided by the Company over the next three years.

**Historical Amounts**: For each of the year ended December 31, 2015, 2016 and 2017, the amounts of the transactions for the consulting service were as follows:

	Historical Amounts (RMB'000)		
	2015 2016 2017		
Consulting service fee	12,787	12,360	14,423

**Annual caps**: For each of the three years ending December 31, 2020, the estimated annual caps for consulting service are set out as below:

	Proposed annual caps for the year ending December 31 (RMB '000)		
	2018	2019	2020
Consulting service fee	22,400	24,700	24,700

The Basis for Annual Caps: The above annual caps are determined by reference to the following factors:

- The historical and expected sales amount of cobalt-60 radioactive sources of CNNC Tongxing.
  - In 2015, 2016 and 2017, CNNC Tongxing sold approximately 4 million, 4 million and 5 million Ci of cobalt-60 radioactive sources in the PRC domestic market, respectively.
  - As of the Latest Practicable Date, CNNC Tongxing has entered into certain sales agreements with overseas third party purchasers, pursuant to which CNNC Tongxing is required to produce and sell approximately 3 million Ci of cobalt-60 radioactive sources on average in each of the following three years. Such sales agreements are pending approval by relevant authorities and expect to become effective soon.
- The changes in the market price and costs (including raw materials cost, labor cost and production equipment cost) of cobalt-60 radioactive sources in the next three years.
- The maximum production capacity of cobalt-60 radioactive sources of CNNC Tongxing and its associates is approximately 9 million Ci. It is expected that CNNC Tongxing will realize its full production capacity in 2019 and therefore our purchase amount from CNNC Tongxing will be the same for each year of 2019 and 2020.

## 7. Carbon-14 Raw Materials Supply Framework Agreement

**Parties**: Headway (the purchaser); and the Company (the supplier).

**Principal Terms**: The Group entered into a carbon-14 raw materials supply framework agreement (the "Carbon-14 Raw Materials Supply Framework Agreement") with Headway on June 16, 2018, pursuant to which the Group will provide Headway and/or its associates with carbon-

14 as the raw materials for production of carbon-14 breath-testing medicine boxes. The Group will also provide ancillary services such as packaging and transportation relating to provision of the carbon-14 raw materials. The term of the Carbon-14 Raw Materials Supply Framework Agreement shall start from the Listing Date and expire on December 31, 2020, subject to renewal as may be agreed on by both parties.

**Reasons for the Transaction**: Headway specializes in the field of breath diagnosis, and carbon-14 is the main raw material for carbon-14 breath-testing products. Due to the Group's advanced nuclear application technology and its long-term and stable cooperation relationship with international carbon-14 raw materials suppliers, we can import high-quality and stable carbon-14 raw materials from Russia and other countries, so the Group is the exclusive supplier of carbon-14 raw materials to Headway and/or its associates.

**Pricing Policy**: The fee payable to the Group by Headway and/or its associates will be determined by parties through mutual negotiation based on the cost-plus method, taking into account our purchasing costs of carbon-14 imported by the Group from Russia and other countries, and the costs of manpower, warehousing and transportation of the Group during the selling process.

**Historical Amounts**: For each of the three years ended December 31, 2015, 2016 and 2017, the amounts of the transactions for the sale of carbon-14 raw materials and ancillary services were as follows:

	(RMB'000)		
	2015	2016	2017
Sale of Carbon-14 raw materials and supply of ancillary services	5,245	2,720	11,400

Historical Amount

**Annual caps**: For each of the three years ended December 31, 2020, the estimated annual caps for the sale of carbon-14 raw materials and ancillary services are set out below:

	Proposed annual caps for the year ending December 31 (RMB'000)			
	2018	2019	2020	
Sale of carbon-14 raw materials and supply of ancillary services	5,500	6,000	3,000	

The Basis for Annual Caps: The above annual caps are determined by reference to the following factors:

- The business plan and development of Headway and/or its associates in the next three years.
  - O Based on Headway's historical sales volume of carbon-14 breath-testing medicine boxes in 2015, 2016 and 2017, it is expected that the clinical demand for carbon-14 breath-testing medicine boxes produced by Headway may increase by approximately 10% annually in the following three years.
- The expected changes relating to the price, supply and demand for carbon-14 raw materials in the international market and the import cost of carbon-14 raw materials.
  - Headway purchased urea as raw materials for the production of carbon-14 breathtesting medicine boxes in 2014. Due to technical update, in 2015, 2016 and 2017,

Headway purchased barium carbonate as alternative raw materials for the production of carbon-14 breath-testing medicine boxes. The unit price of urea is approximately 2 times higher than barium carbonate.

- O Based on the market price and demand of different types of raw materials for the production of carbon-14 breath-testing medicine boxes in domestic and international market, and Headway's business strategies and demand for such raw materials, Headway plans to balance its purchase of different types of raw materials in the future.
- Headway is expected to commence independent production on its own in 2020 after its relocation to new production base. Therefore, its cost in production will significantly decrease by approximately 60% in 2020 due to technology update in the new production base.

# B. Continuing connected transaction subject to the reporting, annual review, announcement and independent shareholders' approval requirements

The following transaction has been carried out and will be entered into in our ordinary and usual business and on normal commercial terms or better, and our Directors expect that the relevant percentage ratios (other than the profit ratio) calculated for the purpose of Chapter 14A of the Listing Rules will be more than 5% on an annual basis. Such transaction will be subject to the reporting, annual review, announcement, circular and independent shareholders' approval requirements under Chapter 14A of the Listing Rules.

## 8. Financial Services Framework Agreement

**Parties:** The Company (service recipient); and

CNNC (service provider)

**Principal Terms**: The Company entered into a financial services framework agreement (the "Financial Services Framework Agreement") with CNNC on June 16, 2018, pursuant to which CNNC and/or its associates will provide the Group with, among other things, (i) deposits and related services (the "Deposit Services"); (ii) entrusted loan, settlement, foreign exchange and other services (the "Settlement, Entrusted Loan and Other Financial Services"); and (iii) financial leasing service (the "Financial Leasing Service") for certain assets used in the operation of the Group. The Financial Services Framework Agreement will be effective on the Listing Date and expire on the earlier of i) one year from the Listing Date; or ii) 2018 annual general meeting of the Company to be convened in early 2019, subject to renewal as may be agreed upon by both parties and approved by the independent Shareholders at the general meeting of the Company.

In accordance with the Financial Services Framework Agreement, CNNC and/or its associates has agreed to provide the Group with the financial services pursuant to the following principal terms:

- a) other than the services provided by CNNC and/or its associates under the Financial Services Framework Agreement, the Group may obtain financial services from other financial institutions:
- b) any counterparty may not terminate the Financial Services Framework Agreement unilaterally; and

c) after the termination of the Financial Services Framework Agreement, the Group has the right to withdraw its deposits with CNNC and/or its associates immediately.

CNNCFC, a non-bank financial company and a subsidiary of CNNC, has deep understanding in the industry characteristics, capital structures, business operations, financing need, cash flow patterns and the entire financial management system of the Group through its previous cooperation with us. It provides services to the Group on equal or better commercial terms compared to those offered by other external independent commercial banks. In addition, as it is a major clearing and settlement platform of CNNC and its associates, using the services from CNNCFC enables us to reduce costs, maximize efficiency and benefit from the capital pool managed by CNNC.

CNNC also has a professional financial leasing service provider, namely CNNC Financial Leasing Company. As CNNC Financial Leasing Company is familiar with the business nature of the Group, the Group is able to obtain financial leasing services from CNNC Financial Leasing Company with ease, and benefit from equal or more favorable fees as compared to those provided by major independent commercial banks.

**Pricing Policy**: The pricing policy under the Financial Services Framework Agreement is as follows:

- a) Deposit Services: The deposit interest rates shall not be lower than (i) the deposit interest rates of a similar category of deposit in the same period promulgated by PBOC; or (ii) the public interest rates of a similar category of deposit in the same period provided by major independent commercial banks.
- b) Settlement, Entrusted Loan and Other Financial Services: The fees payable to CNNCFC for the settlement, entrusted loan and other financial services will be determined with reference to the market rates of similar services promulgated by PBOC and will be equal to or more favorable than the rates offered by major independent commercial banks.
- c) Financial Leasing Services: The financial leasing service fees to be charged by CNNC and/or its associates will be equal to or more favorable than the fees offered by other domestic financial leasing institutions.

**Historical Amounts**: For each of the three years ended December 31, 2015, 2016 and 2017, the amounts of transactions involved in the financial services are set out as follows:

	Historical Amounts (RMB'000)		
	2015	2016	2017
Deposits of the Group with CNNCFC			
Maximum daily balance	767,309	747,731	1,482,666
Interest income	4,488	5,847	14,465
Maximum daily balance of entrusted loans provided by our Group through CNNCFC	Nil	7,500	16,000
Service fees for settlement, entrusted loans and other services	Nil	2	4.8
Financial leasing fees	Nil	Nil	Nil

**Annual Caps**: For the period from the Listing Date to the earlier of i) one year from the Listing Date; or ii) 2018 annual general meeting of the Company to be convened in early 2019, the estimated caps of the Financial Services Framework Agreement are set out below:

	(RMB'000)  the period from the Listing Date to the earlier of i) one year from the Listing Date; or ii) 2018 annual general meeting of the Company to be convened in early 2019
Deposits of the Group in CNNCFC	
Maximum daily balance	3,082,666
Interest income	45,778
Maximum daily balance of entrusted loans provided by our Group through CNNCFC	417,500
Service fees for settlement, entrusted loans and other services	125
Financial leasing fees	2,763

The Basis for Caps: Caps for the deposits and the interest income: In determining the caps for the deposits and interest income for the period from the Listing Date to the earlier of i) one year from the Listing Date; or ii) 2018 annual general meeting of the Company to be convened in early 2019, the Company mainly refers to: (i) the amounts of deposits and interest income of the Group with CNNCFC during the Track Record Period; and (ii) the net proceeds from the Global Offering are expected to be deposited with CNNCFC.

Caps for settlement, entrusted loans and other financial services: In determining the caps for settlement, entrusted loans and other financial services for the period from the Listing Date to the earlier of i) one year from the Listing Date; or ii) 2018 annual general meeting of the Company to be convened in early 2019, the Company mainly refers to: (i) the amount of entrusted loans provided by CNNCFC to the Group and the service fees related thereto during the Track Record Period; (ii) the anticipated net cash inflow of the Group (including the anticipated payments from the uncompleted contracts and new contracts); (iii) the fact that the Company intends to obtain entrusted loans from CNNCFC for its subsidiaries to support their business development, and the Company does not intend to lend the net proceeds from the Global Offering to CNNC and/or its associates (other than the subsidiaries of the Company) by way of entrusted loans; and (iv) the projected business volume for the year ending 2018 annual general meeting of the Company to be convened in early 2019, and the estimated charges for cash settlement and foreign exchanges based on the ratio of the amount of cash settlement and foreign exchanges to the related charges in the past. Specifically, as of the Latest Practicable Date, the Company has provided entrusted loans in the amount of approximately RMB16.0 million through CNNCFC to the members of the Group, and will provide additional entrusted loans of approximately RMB 402 million to members of the Group through CNNCFC.

Caps for financial leasing: Given that our Group will utilize certain assets through financial leasing to conduct irradiation business, in determining the caps for fees of financial leasing for the period from the Listing Date to the earlier of i) one year from the Listing Date; or ii) 2018 annual general meeting of the Company to be convened in early 2019, the Company mainly refers to: (i) changes in the prices of the assets required for our irradiation and radiopharmaceuticals business; and (ii) the expected rental payable by our Group for the assets required for our irradiation and radiopharmaceuticals business.

# The Background Information of CNNCFC and CNNC Financial Leasing Company CNNCFC

CNNCFC was established on July 21, 1997 by CNNC and CNNC's 25 member units, with a registered capital of RMB 2,009.6 million. CNNCFC is a non-bank financial institution which strengthens the centralized management of fund within the CNNC group, improves the fund utilization efficiency and the financial management services for CNNC groups' member units.

With respect to the entrustment loan service provided by CNNCFC, CNNCFC only acts as a financial agent to facilitate the Group to provide loans to the Group's subsidiaries. Under PRC laws, the Company is prohibited from lending money directly to its subsidiaries and is required to engage financial institutions to provide entrusted loans. On one hand, during the ordinary business of the Group, from time to time the Company needs to finance its subsidiaries to conduct investments, establish new projects, among others. The use of CNNCFC as a vehicle through which intra-group loans could be arranged allow for the more efficient deployment of funds. Compared to other financial institutions, CNNCFC is a safe, flexible and cost efficient option which may not otherwise be available in the open market. On the other hand, as we only provide entrustment loans when we have surplus cash, such loans did not in the past, nor are they expected in the future, pose any cash flow pressure on us. In addition, as mentioned above, with a deep understanding of the industry characteristics, capital structures, business operations, financing needs, cash flow patterns and the entire financial management system of the Group, CNNCFC is able to provide entrusted loan services to members within the Group on terms no less than, or more favorable than, those available from major commercial banks or independent financial institutions, which enables us to reduce costs, maximize efficiency and benefit from the capital pool managed by CNNC.

CNNCFC is subject to the *Administrative Measures on Finance Companies within Group Enterprises* (《企業集團財務公司管理辦法》) and other relevant regulations promulgated by PBOC and CBRC. The establishment of such non-bank financial institutions is subject to approval by CBRC and their operation is subject to the ongoing supervision of CBRC. Non-bank financial institutions shall comply with applicable regulations relating to interests rates issued by PBOC and CBRC.

Pursuant to applicable PRC laws and regulations, finance companies within enterprises group are only permitted to provide financial services to enterprises within the group or companies of which more than 20% of the shares are held by the parent company. Therefore, CNNCFC may only provide financial services to members units of the CNNC group (including us). As a non-bank financial institution, CNNCFC is subject to various regulatory and capital adequacy requirements, including capital adequacy ratios, collateral ratio, long-term investment ratio and deposit reserve thresholds.

As of the Latest Practicable Date, the business scope of CNNCFC includes: (i) providing financial and financing consultancy, credit certification and related consultancy and agency services to members of the CNNC group; (ii) assisting members of the CNNC group in collection and payment of transaction funds; (iii) providing guarantees to members of the group; (iv) providing entrusted loan and entrusted investment services to members of the CNNC group; (v) providing bill acceptance and discount services to members of the CNNC group; (vi) processing the settlement of internal fund transfers among members of the CNNC group and providing solution plans for relevant settlement and clearing; (vii) taking deposits from members of the CNNC group; (viii) providing loan and finance leases to members of the CNNC group; (ix) conducting inter-borrowings among finance companies; (x) issuing corporate bonds; (xi) underwriting the corporate bonds issued by members of the CNNC group; (xii) equity investments in financial institutions; and (xiii) investments in negotiable securities.

## **CNNC Financial Leasing Company**

CNNC Financial Leasing Company was established in Pilot Free Trade Zone (Shanghai) on December 22, 2015. It is a sino-foreign leasing company, jointly established by CNNC and other 10 companies, including CNNC Shenzhen Xie He Kong Co. Ltd. (Hong Kong), with registered capital of RMB1 billion. As at the Latest Practicable Date, the business scope of CNNC Financial Leasing Company includes: (i) financial leasing; (ii) leasing; (iii) purchase of leased property from domestic and overseas sellers; (iv) treatment of residual value of, and maintenance of, leased property; (v) consultation and guarantee for leasing transactions; and (vi) factoring business associated with principal businesses.

## **Internal Control and Corporate Governance Measures**

Based on the reasons set out above, we are of the opinion that the relevant pricing policies related to the Financial Services Framework Agreement are in the interests of the Shareholders as a whole. We have also adopted the following measures with respect to the transactions under the Financial Services Framework Agreement in order to further safeguard the interests of the independent Shareholders:

## (1) Independent Shareholder approval

Our Directors are of the view that the continuing transactions under the Financial Services Framework Agreement with CNNCFC are in the interests of our Company and the Shareholders as a whole.

Our independent Shareholders have the right to ensure that the terms of the Financial Services Framework Agreement (including the proposed annual caps) are fair and reasonable, and on normal commercial terms and in the interests of our Company and our Shareholders as a whole. We therefore propose to submit the Financial Services Framework Agreement (together with the proposed annual caps) to independent Shareholders for approval by the end of 2018. Appropriate disclosure of the historical and ongoing transactions between us and CNNCFC which will continue under the Financial Services Framework Agreement has been made in this prospectus so as to enable potential investors to make informed decisions. If independent Shareholders' approval cannot be obtained by the end of 2018, we will not continue the transactions under the Financial Services Framework Agreement to the extent that they constitute non-exempt continuing connected transactions under Rule 14A.35 of the Listing Rules. In such event, it is not expected that we will suffer any adverse legal consequences, subject to loss of interest.

## (2) Independent financial system

We have established an independent finance department within the Company. We have adopted a sound and independent audit system and a comprehensive financial management system. We maintain accounts with external independent banks, and do not share any bank account with CNNCFC. CNNCFC cannot control the use of any of our bank accounts. We have independent tax registrations and have paid tax independently pursuant to applicable PRC laws and regulations.

## (3) Internal control measures and risk management measures

- The Company's internal measures
  - We have formulated our rules and regulations, including the Financing Management Measures of China Isotope & Radiation Corporation and the Financial Management

System of China Isotope & Radiation Corporation, to safeguard against fund risks, strengthen our internal financial management, regulate financing activities, and meet the capital requirements of our development. We have set up an integrated management system on planning, budgeting and assessment. The Board and the general manager office of the Company are the responsible bodies in this respect. We adhere to the principle of financing at the Group level, and adopt the integrated management system for investment and financing. We adhere to the principles of proper scale and reasonable structure, and strike a balance between costs and risks.

- When providing entrusted loans to connected persons (whether through CNNCFC or otherwise), we will consider the interest rate, processing fees, term and use of loan and creditworthiness of the ultimate borrower, based on principles of reasonable return, cost control and risk control. The entrusted loan agreements (setting out interest rate, processing fees, term and use of loan) are first approved by the finance department of the Company and then submitted to the legal representative for signing and approval. In addition, the finance department of the Company will be responsible for closely monitoring such ongoing continuing connected transactions and will submit matters to the Board for consideration as appropriate.
- At the end of each quarter, we will request CNNCFC to provide sufficient information, including various financial indicators such as the status of our deposits and interest income, charges on entrusted loans and rental of financial leasing, as well as annual and interim financial statements, to enable us to understand and review the financial condition of CNNCFC. CNNCFC shall notify us, subject to compliance with applicable laws and regulations, should it have any judicial, legal or regulatory proceedings or investigations which are reasonably likely to have a material impact on its financial condition. If we consider that there is any material adverse change in the financial condition of CNNCFC, we will take appropriate measures (including early withdrawal of deposits, termination of entrusted loans and a moratorium on further deposits and entrusted loans) to protect our financial position.
- Our independent non-executive Directors will independently scrutinize the implementation and enforcement of the transactions under the Financial Services Framework Agreement. Only independent non-executive Directors may vote in respect of matters under the Financial Services Framework Agreement. If the majority of the independent non-executive Directors reasonably consider that it would be in our interests to reduce the level of deposits with CNNCFC or entrusted loans to CNNC, we will take appropriate steps to implement the decision of our independent non-executive Directors. Any material findings in the analysis reports, the views of our independent non-executive Directors on the deposits loans and entrusted loans under the Financial Services Framework Agreement (including their views on how the terms of the Financial Services Framework Agreement have been complied with) and their decisions on any matters in relation thereto will be disclosed in our annual and interim reports.
- Ouring our annual audit, we will engage our auditors to review the connected transactions between us and CNNC and/or its associates to ensure that the transactions under the Financial Services Framework Agreement have been conducted in accordance with the Listing Rules and have fulfilled the relevant disclosure requirements.

- each of CNNCFC and CNNC Financial Leasing Company will provide a monthly report per our request on the status of our deposits and interest income, charges on entrusted loans and rental of financial leasing so as to enable us to monitor and ensure that the relevant annual caps under the Financial Services Framework Agreement have not been exceeded. Should the balance at the end of any day exceed the maximum daily balance of deposits and interest income prevailing from time to time, we will notify CNNCFC that the exceeded funds will be transferred to our designated bank accounts with an independent commercial bank. Our financial head will also be notified at the same time once the maximum daily balance has been exceeded. We will, from time to time at our sole discretion, request for the deposits with CNNCFC and the entrusted loans through CNNCFC to CNNC and its subsidiaries to be withdrawn or early terminated (either in full or in part) to assess and ensure the liquidity and safety of its deposits and entrusted loans.
- O In addition to the monthly report, we have implemented internal control measures to make sure the Company will monitor our Group's daily balances with CNNCFC in a timely manner. In particular, our Company's responsible financial person shall check the balances through relevant IT system on daily basis, and promptly report to our financial officer if such daily balances are close to, or likely to exceed the proposed caps.
- CNNCFC and CNNC Financial Leasing Company's measures
  - O In addition to our internal monitoring, CNNCFC will also monitor the maximum daily balance of the deposits and interest income (in the case of CNNCFC only), the amount of interest income accrued on loans, and charges on entrusted loans, on a daily basis, to ensure that the aggregate outstanding amounts do not exceed the applicable annual caps. They will submit report to us on a monthly basis per our request to enable us to monitor such indicators.

## Waivers Granted by the Stock Exchange

The Property & Equipment Leasing and Related Services Framework Agreement, Products and Services Supply Framework Agreement, Products and Services Purchase Framework Agreement, Exclusive Sales Agreement for Radioactive Sources, Cobalt-60 Radioactive Sources Supply and Related Services Framework Agreement, Consultation Service Fee Framework Agreement and Carbon-14 Raw Materials Supply Framework Agreement in the above section "Non-exempt Continuing Connected Transactions" constitute continuing connected transactions of the Group, and such transactions are subject to the reporting, annual review, and announcement requirements under Chapter 14A of the Listing Rules.

The Financial Services Framework Agreement in the above section "Non-exempt Continuing Connected Transactions" constitutes continuing connected transactions of the Group, and such transactions are subject to the reporting, annual review, announcement, circular and independent Shareholders' approval requirements under Chapter 14A of the Listing Rules.

As the non-exempt continuing connected transactions are expected to be carried out continuously, our Directors consider that strict compliance with the aforesaid announcement and/or independent Shareholders' approval requirements will be impractical, and such requirements will lead to unnecessary administrative costs and create an onerous burden on us. Accordingly, we have applied

to the Stock Exchange, and the Stock Exchange has granted us, pursuant to Rule 14A.04 and Rule 14A.105 of the Listing Rules, waivers from strict compliance with announcement and/or independent Shareholders' approval requirements in respect of each of the non-exempted continuing connected transactions (as the case may be). We will comply with the applicable requirements of the Listing Rules if we exceed the proposed annual caps set out above or if there are significant changes in the terms of such transactions.

#### **CONFIRMATION FROM OUR DIRECTORS**

Our Directors (including our independent non-executive Directors) are of the view that the non-exempt continuing connected transactions as set out above have been and will be entered into in our ordinary and usual course of business and on normal commercial terms or better which are fair and reasonable and in the interests of us and the Shareholders as a whole, and the proposed annual caps for those transactions are fair and reasonable and in the interests of us and the Shareholders as a whole

In order to assist the Company's Independent Non-executive Directors to better discharge their duties in respect of connected transactions, the Company has established a consultancy committee comprised of external experts to advise and train the Independent Non-executive Directors regarding technical matters. For details, please refer to the paragraph headed "Directors, Supervisors and Senior Management — Additional Corporate Measures to assist Independent Non-executive Directors" of this prospectus.

#### CONFIRMATION FROM THE SOLE SPONSOR

The Sole Sponsor is of the view that the non-exempt continuing connected transactions as set out above have been and will be entered into in the ordinary and usual course of business of the Group and on normal commercial terms or better which are fair and reasonable and in the interests of the Group and the Shareholders as a whole, and the proposed annual caps for those transactions are fair and reasonable and in the interest of the Group and the Shareholders as a whole.

#### **BOARD**

The Board consists of nine Directors, including three executive Directors, three non-executive Directors and three independent non-executive Directors. The Board is responsible for the management and operation of the Company. The major functions and responsibilities of the Board include, but are not limited to, convening general meetings, reporting on its work at the general meetings, implementing the resolutions passed at the general meetings, formulating business strategies and investment plans, formulating annual budgets and final accounts plans, developing profit distribution plans and deficit coverage plans as well as plans on increasing or decreasing the registered capital, and exercising other powers as conferred on the Board by the Articles of Association.

The following table contains certain information about the Directors:

Name	Age	Position	Date of Appointment	Date of Joining the Group	Principal Roles and Responsibilities
Meng Yanbin (孟琰彬)	49	Executive Director, chairman of the Board	February 22, 2017	January 2017	Participating in the formulation and implementation of the Company's business and operation strategies through the Board, and making decisions relating to the Company's major business and operations, presiding over the activities of the Board, taking responsibility for the construction and management of the Board
Wu Jian (武健)	55	Executive Director	February 22, 2017	June 1991	Presiding over the daily management of the Company and taking responsibility for the management of the Company's subsidiaries
Du Jin (杜進)	52	Executive Director	January 13, 2017	June 2006	Assisting with the management of the Company's daily operations and overseeing the Company's scientific research and development and technology management
Zhou Liulai (周劉來)	55	Non-executive Director, vice chairman of the Board	March 15, 2013	March 2013	Participating in the formulation and implementation of the Company's business and operation strategies through the Board, and making decisions relating to the Company's major business and operations
Luo Qi (羅琦)	50	Non-executive Director, vice chairman of the Board	November 18, 2014	November 2014	Participating in the formulation and implementation of the Company's business and operation strategies through the Board, and making decisions relating to the Company's major business and operations
Wang Guoguang (王國光)	53	Non-executive Director	February 22, 2017	July 2002	Participating in the formulation and implementation of the Company's business and operation strategies through the Board, and making decisions relating to the Company's major business and operations
Guo Qingliang (郭慶良)	62	Independent non-executive Director	February 22, 2017	February 2017	Participating in the Company's decision-making on important matters through the Board

Name	Age	Position	Date of Appointment	Date of Joining the Group	Principal Roles and Responsibilities
Meng Yan (孟焰)	62	Independent non-executive Director	February 22, 2017	February 2017	Participating in the Company's decision-making on important matters through the Board
Hui Wan Fai (許雲輝)	42	Independent non-executive Director	May 15, 2018	May 2018	Participating in the Company's decision-making on important matters through the Board

#### **Executive Directors**

Mr. Meng Yanbin, aged 49, is an executive Director and chairman of the Board, party committee secretary and legal representative of the Company. Before joining the Company, from August 1990 to August 1993, Mr. Meng worked as a technical cadre at Faculty 5 of Research Institute of Physical and Chemical Engineering of Nuclear Industry ("IPCE"). From August 1993 to November 2011, he served as assistant director and deputy director of the institution office, director of the foreign trade office, assistant to the president and manager of the foreign trade division and vice president of IPCE. From November 2011 to January 2017, he served as the general manager and deputy secretary of the party committee of China Nuclear (Tianjin) Machinery Co., Ltd. Mr. Meng has served as secretary of the party committee since January 2017, and has served as executive Director, chairman of the Board and legal representative of the Company since February 2017.

Mr. Meng received a bachelor's degree in mechanical design and manufacturing at the Mechanical Engineering Department II of the Northeastern University (previously known as Northeastern Institute of Technology) in July 1990, and a master's degree in business administration from Tianjin University in September 2004. Mr. Meng qualified as an assistant engineer in August 1991, and a senior engineer in May 2001. He was awarded the Tianjin Patent Excellence Award (Mobile Radioactive Wastewater Treatment Equipment) and the IPCE Science and Technology Award (First Class) (Mobile Radioactive Wastewater Treatment Equipment) in July 2009 and September 2009, respectively. Mr. Meng was awarded the Special Allowance Expertise Award from the State Council in May 2011 and was selected to participate in the New Entrepreneurs Training Project in Tianjin in January 2014. He was granted Labor Medals by the Tianjin Municipal Defense Industry and Tianjin Government in March 2015 and April 2015, respectively. Mr. Meng has served as a tutor at the students innovative entrepreneurial practice of the Department of Mechanical Engineering in Tsinghua University since September 2015 to date.

Mr. Wu Jian, aged 55, is an executive Director, general manager and deputy secretary of the party committee of the Company. Before joining the Company, Mr. Wu served as assistant engineer of the Isotope Department of CIAE from August 1983 to June 1991. From June 1991 to December 1996, he served as engineer of China Isotope. From November 1992 to January 1995, he worked as manufacturing manager and engineer of Shenzhen CICAM Manufacturing Co., Ltd.. From January 1997 to April 1998, Mr. Wu served as deputy manager of the foreign operation division of China Isotope. From April 1998 to March 2000, he served as assistant of the general manager, manager of the trade division and senior engineer of China Isotope. From March 2000 to August 2000, Mr. Wu studied at Suzhou Medical College sponsored by government funding. From June 2001 to May 2002, he was seconded to AEAT Company of the United Kingdom for work and study, and again received government sponsorship. From March 2002 to July 2002, he served as general manager of Shenzhen CICAM Manufacturing Co., Ltd. and from July 2002 to February 2011, he served as deputy general manager of China Isotope Company Limited. From March 2011 to February 2012, Mr. Wu served as member of the preparation team of the Company. From February 2012 to May 2016, Mr. Wu served as

deputy general manager of the Company and has served as general manager and deputy secretary of the party committee of the Company since May 2016, and served as an executive Director of the Company since February 2017. Mr. Wu served as the director of HTA from April 2012 to April 2016 and the chairman of the board of directors of HTA from April 2016 to June 2017. He has been the director of CNGT from May 2012. He also served as the chairman of the board of directors of Headway from February 2007 to March 2017. From August 2016 to date, he served as the deputy chairman of Beijing Clae-riar Rediosotope Technique Co., Ltd.

Mr. Wu received a bachelor's degree in production process automation from Beijing University of Chemical Technology (formerly known as Beijing Institute of Chemical Technology) in June 1991. He received the Executive Master of Business Administration (EMBA) from Renmin University of China in January 2010. Mr. Wu is a professorship senior engineer. In 2008, he was awarded the Outstanding Contributor Capital Operation Award in High Tech Industry by CNNC. In 2013, he was awarded the Special Allowance Expertise Award from the State Council. Since October 2014, he has served as a standing committee member of the 10th Committee of Chinese Society of Nuclear Medicine. Since July 2016, Mr. Wu served as a standing committee member of the 10th Committee of the Nuclear Medicine Branch of Beijing Medical Association. Since November 2016, he has served as the executive vice president of the 6th Council of China Isotope and Radiation Industry Association.

Mr. Du Jin, aged 52, is an executive Director and chief engineer of the Company. Before joining the Company, from August 1986 to May 1997, Mr. Du served as engineer and associate researcher of the Isotope Department of CIAE. From May 1995 to August 1995, he studied at MAP Medical Technologies, Finland. From March 1996 to September 1996, as a visiting scholar, he worked at the Radioisotope Department of Japan Atomic Energy Research Institute. From June 1997 to January 2002, Mr. Du worked as senior researcher at MAP Medical Technologies Oy, Finland. From February 2002 to June 2006, he served as researcher at the Isotope Department of CIAE, and as a professor of the Joint Radiopharmaceutical Laboratory of Peking University Health Science Center. Mr. Du served as researcher and deputy chief engineer of the Company and its predecessor, China Isotope, from June 2006 to May 2016. He has served as chief engineer of the Company since May 2016. In addition, since January 2017, Mr. Du has also served as director of Shanghai GMS Pharmaceutical, and has been a director of HTA since April 2015.

Mr. Du received a bachelor's degree in organic chemistry engineering from Wuhan Institute of Technology in July 1986 and a master's degree in inorganic and analytical chemistry from University of Jyvaskyla in Finland in December 1998. He received a doctorate in inorganic and analytical chemistry from University of Jyvaskyla in Finland in August 2001. Mr. Du was awarded second prize in the National Defense Science and Technology Award in November 2002. In 2016, he was awarded the Special Allowance Expertise from the State Council. He has been a member of the Eighth Committee of the Nuclear Chemistry and Radiochemistry Chapter of the Chinese Nuclear Society since March 2013. Mr. Du has been a member of the Editorial Board of Nuclear Chemistry and Radiochemistry since November 2013, and since October 2014 has served as deputy editor-in-chief of the Fifth Editorial Board of *Isotope*. Since October 2014, he has also served as deputy director of the Sixth Council of the Isotope Branch of China Nuclear Society. Since May 2015, Mr. Du has served as deputy group leader of the radiopharmaceutical group of the 10th Committee of the Chinese Society Nuclear Medicine. Since December 2015, he has been a standing member of the First Cancer Nuclear Medicine Professional Committee of Chinese Anti-Cancer Association. He has also been a member of the National Committee for Nuclear Energy Standardization (SAC / TC58) and vice committee director of the Radioisotope Technical Committee (SAC / TC58 / SC4) since July 2015. Since

December 2016, he has been a member of the Fourth Committee on Science and Technology of CNNC, and deputy director of the Specialized Committee of Nuclear Technology Industrialization.

#### **Non-executive Directors**

Mr. Zhou Liulai, aged 55, is a non-executive Director and vice chairman of the Board of the Company. Before joining the Company, from August 1983 to July 1985, Mr. Zhou worked at the Editing and Publishing Department of the Intelligence Unit under CIAE. From August 1985 to July 1986, he worked as a teacher in Xupu, Hunan Province as a member of the Central Lecturer Group. From August 1986 to November 2002, he served as deputy director, director of the office of academic affairs and assistant director, deputy director, executive deputy director and party committee secretary of the Graduate Department of Nuclear Industry under CNNC and deputy director of Nuclear Industry Training Center. From November 2002 to November 2011, he served as dean of the Nuclear Industry Management Cadre College, director and party committee secretary of the Nuclear Industry Training Center, and vice president of Nuclear Industry Party School. From November 2011 to July 2012, he worked as the secretary of Party Leadership Group and head of the discipline inspection group and deputy general manager of Baoyuan Investment. Since July 2012 to date, he has worked as party secretary and vice president of CIAE. Since March 2013 to date, Mr. Zhou has served as a non-executive Director and vice chairman of the Board of the Company.

Mr. Zhou obtained a bachelor's degree in computational mathematics from Peking University in July 1983 and a master's degree in business administration from Tsinghua University in January 2000.

**Mr. Luo Qi**, aged 50, is a non-executive Director and vice chairman of the Board of the Company. Before joining the Company, from June 1991 to January 2009, he worked as senior engineer, vice president and professorship senior engineer at NPIC. He has been the president of NPIC since January 2009, and a Director and vice chairman of the Board of the Company since November 2014.

Mr. Luo was awarded a master's degree in thermophysics from Xi'an Jiaotong University in June 1991. Mr. Luo has the technical title of professorship senior engineer. Mr. Luo is also a member of the 12th National Committee of the Chinese People's Political Consultative Conference.

Mr. Wang Guoguang, aged 53, is a non-executive Director of the Company. Before joining the Company, from August 1985 to October 1988, Mr. Wang served as a research intern at the radiochemistry department of CIAE. From September 1986 to June 1987, he served as a teacher of the Central Instructor's Group (Hunan group). From October 1988 to June 1999, he served as secretary, deputy chief, chief, assistant director and chief, and deputy head of the Secretariat of the General Office of CNNC. From September 1995 to September 1996, he was the assistant general manager of Qinshan Nuclear Power Company. From July 1999 to November 2001, Mr. Wang served as deputy director of the investment management division of CNNC. From November 2001 to July 2002, he served as deputy director of the general manager division of CNNC. From July 2002 to February 2011, Mr. Wang served as general manager and acting secretary of China Isotope. From March 2011 to February 2012, Mr. Wang served as head of the preparation team of the Company. From February 2012 to March 2016, he was the Company's general manager and worked as the Company's secretary of party committee from January 2012 to March 2016. Since March 2016 to March 2017, he has been party secretary and deputy director of the nuclear power division of CNNC. From March 2017 to

November 2017, he served as the director of the nuclear technology application industry division of CNNC. Since November 2017, he has served as a director of the general office of CNNC.

Mr. Wang received a bachelor's degree of engineering in chemistry from the Chemical Engineering Department of Qingdao Institute of Chemical Technology in July 1985. He received an master's degree in business administration for senior management from University of Texas at Arlington in May 2006. Mr. Wang obtained the Outstanding Contributor Award in High Tech Industry granted by CNNC in March 2008, the Excellent Manager Award in High Tech Industry granted by CNNC in June 2009, the Special Allowance Expertise Award (Engineering Technology) from the State Council in February 2011, and first prize for Progress Award of Science and Technology granted by CNNC in November 2013.

## **Independent non-executive Directors**

Mr. Guo Qingliang, aged 62, is an independent non-executive Director of the Company. Before joining the Company, from June 2000 to August 2007, Mr. Guo worked as deputy director of Shandong Provincial Policy Research Office; from August 2007 to January 2013, he served as director of the General Office of the Ministry of Justice, and from January 2013 to May 2016, he served as chairman of China Legal Services (Hong Kong) Limited. Mr. Guo has served as vice president of the Eighth China Notary Association in February 2017. Mr. Guo is currently a member of the Nomination Committee and the Remuneration and Appraisal Committee of the Company.

Mr. Guo was awarded a bachelor's degree in education majoring in politics from Qufu Normal University in June 1983.

Mr. Meng Yan, aged 62, is an independent non-executive Director of the Company. Mr. Meng currently serves as professor and a PhD supervisor at the Accounting College of the Central University of Finance and Economics. Mr. Meng has been an executive director of the Accounting Society of China since June 2007. He has been a member of the China Cost Research Society since March 2011. Mr. Meng served as an independent director of Wanhua Chemical Group Co., Ltd. from August 2009 to February 2016. Since June 2005 to date, he has served as an independent non-executive director of Jolimark Holdings Limited (stock code: 02028.HK). Since November 2009 to date, he has served as an independent non-executive director of China Longyuan Power Technology Developing Corporation (stock code: 00916.HK). Since April 2012 to date, he has served as an independent director of COFCO Property (Group) Co., Ltd. (stock code: 000031.SZ). Since April 2016 to date, he has served as an independent director of Beijing Bus Media Co., Ltd. (stock code: 600386.SH). From December 2017 to date, he has served as an independent director of Beijing Capital Co., Ltd. (stock code: 600008 SH). Save as disclosed above, Mr. Meng has not held a directorship in any other listed company in the three years prior to the date of this prospectus. Mr. Meng is currently a member of the Audit and Risk Management Committee of the Company, and president of the Remuneration and Appraisal Committee of the Company.

Mr. Meng was awarded a bachelor's degree in accounting and a master's degree in accounting from the Central Institute of Finance and Banking in July 1982 and July 1988, respectively. He was awarded a doctorate from the Institute of Fiscal Science under the MOF in August 1997. In September 1993, Mr. Meng was awarded the title of National Excellent Teacher by the State Education Commission and the Ministry of Personnel. In October 1997, he was awarded the Special Government Allowance of the State Council by the State Council. In September 2011, the Ministry of Education awarded him the University Distinguished Teacher.

Mr. Hui Wan Fai (許雲輝), aged 42, is an independent non-executive Director of the Company. Before joining the Company, from August 2006 to July 2010, Mr. Hui served as a managing director of Pacific Alliance Group, and from June 2010 to March 2012, he served as a managing director of The Blackstone Group (HK) Limited. Mr. Hui has been an independent non-executive director of the Greentown China Holdings Limited (Hong Kong Stock Exchange Stock Code: 3900) since April 2012. Mr. Hui has been the managing partner of PAG Consulting Ltd since March 2012. Save as disclosed above, Mr. Hui has not held a directorship in any other listed company in the three years prior to the date of this prospectus.

Mr. Hui obtained a bachelor's degree in Business Administration from The University of Hong Kong in 1998 and a Master's degree in International and Public Affairs from The University of Hong Kong in 2002. He also obtained a master's degree in Business Administration from INSEAD in 2004. Mr. Hui is a member of the Association of Chartered Certified Accountants, United Kingdom, and holds the qualifications of the Chartered Financial Analyst from the Association for Investment Management and Research, and Associate of HKICS from the Hong Kong Institute of Company Secretaries. Mr. Hui is a permanent resident of and is ordinarily resident in Hong Kong.

## **Board of Supervisors**

The Board of Supervisors consists of five Supervisors, including two employee representative Supervisors. The terms of reference of the Board of Supervisors include, but are not limited to: reviewing and verifying the financial statements, business reports and profit distribution plans prepared by the Board of Directors, supervising financial activities, supervising the performance of Directors and senior management in the performance of their respective duties, requiring Directors and senior management to correct their acts which are detrimental to the interests of the Company, and exercising other powers conferred by the Articles of Association.

The following table contains certain information on the Supervisors:

Name	Age	Position	Date of Appointment	Date of Joining the Group	Principal Roles and Responsibilities
Zhang Qingjun (張慶軍)	47	Supervisor, chairman of the Board of Supervisors	February 22, 2017	May 2011	Overseeing the work of the Board of Supervisors and organizing Supervisors to supervise the operation and financial activities of the Company
Liu Zhonglin (劉忠林)	49	Supervisor	February 22, 2017	February 2017	Supervising the operation and financial activities of the Company
Chen Shoulei (陳首雷)	52	Supervisor	February 22, 2017	February 2017	Supervising the operation and financial activities of the Company
Li Guoxiang <i>(</i> 李國祥)	42	Supervisor	August 15, 2016	August 1997	Supervising the operation and financial activities of the Company
Zhang Yiming (張軼名)	36	Supervisor	August 15, 2016	August 2012	Supervising the operation and financial activities of the Company

Mr. Zhang Qingjun, aged 47, is a Supervisor and chairman of the Board of Supervisors of the Company. Before joining the Company, Mr. Zhang served as an accountant, assistant director, deputy director, and director in the finance division of the Fourth Research and Design Engineering Corporation of CNNC. From August 2005 to February 2007, he worked at the audit division of CNNC on secondment. From October 2010 to June 2012, he worked as deputy director of the finance division of CNNC. From May 2011 to October 2012, Mr. Zhang served as the Supervisor of our Company. From June 2012 to March 2015, he worked as chief accountant of Sichuan Environmental Protection

Engineering (821 Plant), and he has served as deputy director of the finance division of CNNC since March 2015 to date. Mr. Zhang has also served as a Supervisor and chairman of the Board of Supervisors since February 2017.

Mr. Zhang graduated from the Chemical Department of the Shijiazhuang Management Officer Academy in June 1998. He graduated from the Renmin University of China School of Continuing Education in September 2009. Mr. Zhang is a senior accountant, certified public accountant and certified asset appraiser. He has also served as a supervisor of Hualong Pressurized Water Reactor Technology Corporation, Ltd. since January 2016. Mr. Zhang won second prize in the 2013 National Defense Science and Technology Industry Enterprise Management Innovation Achievement Award (中國國防科技工業企業管理創新成果二等獎) and second prize in the CNNC Management Innovation Achievement Award (中核集團管理創新成果二等獎).

Mr. Liu Zhonglin, aged 49, is a Supervisor of the Company. Before joining the Company, Mr. Liu served as accountant, deputy chief, chief of the finance division, director of finance and auditing division, deputy chief accountant and chief accountant of the Sixth Design and Research Institute of China North Industries Group Corporation from July 1990 to December 2010. From December 2010 to July 2012, he served as the chief accountant of China Weapon Industry Northern Engineering Design Institute Co., Ltd. (中國兵器工業北方工程設計研究院有限公司). From July 2012 to July 2015, he served as the chief accountant of Shandong Special Industrial Group. From July 2015 to date, he has served as chief accountant of CIAE. Mr. Liu has been a Supervisor of the Company since February 2017.

Mr. Liu received a bachelor's degree in financial accounting from Shenyang Institute of Technology in July 1990. Mr. Liu is a senior accountant at researcher level, and a PRC certified public accountant. Mr. Liu was awarded the title of "The New Long March Pioneer in North Design Research Institute" (北方設計研究院新長征突擊手) in April 1993. He participated in the Knowledge Contest of Accounting Rules in Hebei Province on behalf of the State Commission of Science and Technology for National Defense Industry (國防科工委) and obtained third prize in June 1995, and was awarded the title of "Outstanding Communist Party Member in North Design Research Institute" in 1999 and 2000.

Mr. Chen Shoulei, aged 52, is a Supervisor of the Company. From October 1986 to December 2007, he worked as assistant accountant, accountant of the finance division, vice section chief of the finance section, acting deputy chief, deputy chief, chief of the finance division, and director of the financial assets division in the Fifth Research and Design Institute of the Nuclear Industry. From January 2008 to January 2013 he worked as deputy director and senior accountant in the finance and accounting division of China Nuclear Power Engineering. From January 2013 to March 2016, he worked as director of the supervision and audit division of China Nuclear Power Engineering. Since March 2016 to date, he has served as chief accountant of NPIC. Mr. Chen has been a Shareholder representative Supervisor of the Company since February 2017 to date.

Mr. Chen received a bachelor's degree in auditing (accounting) from Wuhan University in July 1995. Mr. Chen is a senior accountant. He qualified as an assistant accountant in October 1989 and was certified as an accountant in November 1993, then as a senior accountant on March 27, 2000.

**Mr. Li Guoxiang**, aged 42, is an employee representative Supervisor of the Company. Before joining the Company, Mr. Li worked in BNIBT from August 1997 to August 1998. From August 1998 to April 2013, he worked as senior engineer and deputy manager of the medical products division of

Isotope Corporation. Mr. Li served as deputy manager of the medical application division of the Company from April 2013 to July 2016. He has served as deputy manager (presiding over the Company's business) of the medical application division of the Company since July 2016. Since July 2017, he has served as the general manager of Beijing Branch of the Company. Since August 2016 to date, he served as the Company's employee representative Supervisor.

Mr. Li received a bachelor's degree in biochemistry from the Department of Applied Biology of the Bioengineering Institute of East China University of Science and Technology in July 1997. Mr. Li is a qualified senior engineer.

Mr. Zhang Yiming, aged 36, is an employee representative Supervisor of the Company. Before joining the Company, from July 2006 to July 2012, he worked at Beijing Radiation Safety Technology Center. Mr. Zhang has worked at the safety quality division of the Company since August 2012. From June 2016 to August 2017, he served as the deputy director of China National Nuclear Corporation Dalian Institute of Applied Technology on secondment. Since August 2017, he has served as the deputy director of the safety and quality department of the Company (presiding over the Company's business). Mr. Zhang has been the employee representative Supervisor of our Company since August 2016.

Mr. Zhang obtained a bachelor's degree in electronic information engineering from North China Institute of Science and Technology in July 2006. He received a master's degree in nuclear energy and nuclear technology engineering from Tsinghua University in June 2012. Mr. Zhang is a senior engineer; and his research project, a low background gamma spectrometer analysis device, received a utility model patent, issued by China State Intellectual Property Office in March 2016.

## Senior management

The following table contains certain information about the senior management of the Company:

Name	Age	Position	Date of Appointment	Date of Joining the Group	Principal Roles and Responsibilities
Wu Jian (武健)	55	General Manager	May 25, 2016	June 1991	Overseeing the daily management of the Company, and taking charge of the management work of subordinate enterprises, and the work of the marketing department and the investment department of the Company
Wu Laishui (吳來水)	44	Chief Accountant, Chief Legal Officer	December 18, 2015	April 2009	Assisting with the management of the Company's daily operations, taking responsibility for the Company's financial management, internal control management, legal affairs and other related work
Du Jin (杜進)	52	Chief Engineer	May 25, 2016	June 2006	Assisting with the management of the Company's daily operations, taking responsibility for the research, development and management of the Company's new technologies and new products
Fan Guomin (范國民)	47	Deputy General Manager	May 25, 2016	December 2011	Assisting with the management of the Company's daily operations, taking responsibility for the relevant work of subordinate enterprises and enterprise safety quality management

Name	Age	Position	Date of Appointment	Date of Joining the Group	Principal Roles and Responsibilities
Wang Suohui (王鎖會)	43	Deputy General Manager	February 22, 2017	February 2017	Assisting with the management of the Company's daily operations, taking responsibility for the Company's business in the field of radiation processing and administrative affairs, system construction, document management, confidentiality and procurement related works.

**Mr. Wu Jian**, aged 55, is an executive Director and general manager of the Company. Please refer to the section above (— Board of Directors — Executive Director) for details of his biography.

Mr. Wu Laishui, aged 44, is chief accountant and chief legal officer of the Company. Prior to joining the Company, from April 1997 to November 1997, Mr. Wu was as an accountant with Hardware Plastic Products Factory of Shenzhen CNNC Xiehe Industry Company. From November 1997 to April 1998, he served as an accountant of Shenzhen CNNC Xiehe Industry Company. From April 1998 to August 2005, he served as a cashier and accountant of China National Nuclear Corporation (Shenzhen) Limited. From August 2005 to December 2006, he served as deputy chief of the company administrative section of the asset operation division of CNNC. From January 2007 to March 2009, he served as deputy manager of finance division of China National Nuclear Corporation (Shenzhen) Limited. From April 2009 to December 2010, he managed the risk audit division of China Isotope Co., Ltd.. From January 2011 to July 2014, he worked as the chief of the audit division of the audit division of CNNC. From July 2014 to December 2015, he worked as chief accountant of the Fourth Research and Design Engineering Corporation of CNNC. Since December 2015 to date, he has served as chief accountant of the Company. Since August 2016 to date, he has served as chief legal officer of the Company. Since April 2016 to date, he has been a director of HTA and CNGT. Since May 2016, he has also served as the legal representative and executive director of China Isotope (Shanghai) Co., Ltd.. Since January 2016 to date, he has served as a supervisor of CNNC Financial Leasing Company.

Mr. Wu graduated from Shanghai Institute of Building Materials in July 1995, majoring in accounting. Mr. Wu was awarded National Internal Audit Advanced Worker in 2014. Mr. Wu is a senior accountant, and is qualified as a certified public accountant of China, certified tax agent of China, and received a qualification from the Association of Charted Certified Accountants.

**Mr. Du Jin**, aged 52, is an executive Director and chief engineer of the Company. Please refer to the section above (— Board — Executive Directors) for details of his biography.

Mr. Fan Guomin, aged 47, is the deputy general manager of the Company. Before joining the Company, Mr. Fan served as the team leader of the fire source team in Section 52 at the Isotope Department of CIAE from July 1995 to July 2001. He served as director of the sales division in the Isotope Department of CIAE from July 2001 to March 2003, and as the director of the marketing division, assistant president, vice president and senior engineer of Isotope Division of HTA from March 2003 to June 2012. He also served as the deputy general manager and senior engineer of Headway from July 2012 to September 2012. From September 2012 to May 2016, he served as the general manager of Headway. Mr. Fan has served as the deputy general manager of the Company since May 2016. Mr. Fan was appointed as the chairman of the board of directors of HTA in June 2017 and the chairman of the board of directors of CNGT in July 2017, respectively. From March 2017 to date, he served as the chairman of the board of directors of Headway. From January 2017 to date, he served

as the deputy chairman of Shanghai GMS Pharmaceutical. From August 2016 to date, he served as the deputy chairman of Beijing Clae-riar Rediosotope Technique Co., Ltd.

Mr. Fan received a bachelor's degree in science (Radiochemistry) from the Department of Chemistry of the Sichuan University (formerly known as Sichuan United University) in July 1995. Mr. Fan is a qualified senior engineer.

Mr. Wang Suohui, aged 43, is deputy general manager of the Company. Before joining the Company, from July 1997 to March 1999, Mr. Wang served as assistant engineer of the Fourth Research and Design Engineering Corporation of CNNC. From March 1999 to June 2002, he served as supervising engineer of CNNC Star Construction Project Management Co, Ltd.. From July 2002 to December 2007, he served as director and senior engineer of the Fourth Research and Design Engineering Corporation of CNNC. From January 2008 to January 2017, he served as principal staff member, deputy chief, chief of the division of plan and development of CNNC. Mr. Wang has served as Deputy General Manager of the Company since January 2017. Mr. Wang has been serving as the chairman of the board of directors of CNNC Tongxing since May 18, 2017. From May 2017 to date, he served as the chairman of the board of directors of BINE.

Mr. Wang obtained a bachelor's degree in chemical equipment and mechanisms from the Mechanical Engineering Department of Hebei University of Science and Technology in July 1997. He received a master's degree in nuclear energy and nuclear technology engineering from Tsinghua University in January 2010. Mr. Wang is a qualified senior engineer.

#### **KINSHIP**

There is no family or blood relationship among any of the Directors, Supervisors and senior management of the Company.

## **JOINT COMPANY SECRETARIES**

**Mr. Wu Laishui** is the chief accountant and the chief legal officer of the Company and one of the joint company secretaries. Please refer to the paragraph headed - Senior management above for details of his biography.

Ms. Kam Mei Ha Wendy is a joint company secretary of the Company. Ms. Kam is a director of the Corporate Services Division at Tricor Services Limited ("Tricor"). Tricor is a global professional services provider specializing in business, corporate and investor services.

Ms. Kam has more than 25 years' experience in corporate services area and has been providing professional corporate services for Hong Kong-listed companies, multinational companies, private companies and offshore companies. Before joining Tricor, Ms. Kam served as manager of the company secretarial department of Ernst & Young, Hong Kong. Ms. Kam currently serves as a company secretary/joint company secretary in six companies listed on the Stock Exchange, namely China CITIC Bank Corporation Limited (stock code: 998), Nanjing Sinolife United Company Limited (stock code: 3332), Fuyao Glass Industry Group Co., Ltd. (stock code: 3606), Zhongsheng Group Holdings Limited (stock code: 881), Wisdom Sports Group (stock code: 1661) and China Unienergy Group Limited (stock code: 1573).

Ms. Kam graduated from the City Polytechnic of Hong Kong (now referred to as the "City University of Hong Kong") with a professional diploma in company secretaryship and administration

in November 1990. Ms. Kam is a chartered secretary and a fellow member of the Hong Kong Institute of Chartered Secretaries and the Institute of Chartered Secretaries and Administrators in United Kingdom. She holds a Practitioner's Endorsement Certificate from the Hong Kong Institute of Chartered Secretaries. Ms. Kam is a member of the Companies Registry Customer Liaison Group and regularly exchanges views on the services provided, and new measures adopted, by the Registry with the Companies Registry and other members (including the representatives of the Law Society of Hong Kong, Hong Kong Institute of Certified Public Accountants, the Hong Kong Institute of Chartered Secretaries and Hong Kong Association of Banks).

## **BOARD COMMITTEES**

The Company has established three Board committees in accordance with the relevant PRC laws and regulations and the corporate governance practice under the Listing Rules, including the Nomination Committee, the Remuneration and Appraisal Committee, and the Audit and Risk Management Committee.

#### **Nomination Committee**

The Nomination Committee of the Company consists of three Directors, namely Mr. Meng Yanbin (chairman of the Board and executive Director), Mr. Guo Qingliang (independent non-executive Director), and Mr. Hui Wan Fai (independent non-executive Director). Mr. Meng Yanbin currently serves as the chairman of the Nomination Committee. The primary duties of the Nomination Committee include:

- (a) to formulate criteria, procedures and methods for the election of Directors and senior management of the Company and propose these to the Board for consideration;
- (b) to review regularly the structure, quorum, members and related qualifications of the Board every year, and make recommendations to the Board in respect of the relevant issues and develop the diversified policy of the members of the Board;
- (c) to assist the regulatory bodies in reviewing and making recommendations to the Board on the nomination of candidates for Directors, general manager and secretary of the Board;
- (d) to assist the regulatory bodies in reviewing the candidates of other manager-level members nominated by the general manager and make recommendations to the Board;
- (e) to review the independence of independent non-executive Directors;
- (f) to propose the plan and proposal for talent reserve program;
- (g) to make recommendations to the Board on the appointment and reappointment of Directors and the succession plan of Directors; and
- (h) other functions and powers authorized by the Board.

#### **Remuneration and Appraisal Committee**

The Remuneration and Appraisal Committee of the Company consists of three Directors, namely Mr. Meng Yan (independent non-executive Director), Mr. Wang Guoguang (non-executive Director), and Mr. Guo Qingliang (independent non-executive Director). Mr. Meng Yan currently

serves as the chairman of the Remuneration and Appraisal Committee. The primary duties of the Remuneration and Appraisal Committee include:

- (a) to make recommendations to the Board on the remuneration policies and structure of all Directors and senior management of the Company and the formulation of such remuneration policies for establishing formal and transparent procedures;
- (b) to determine compensation packages for all executive Directors and senior management, including benefits-in-kind, pension rights and related compensation (including the compensation for loss or termination of office or appointment), and to make recommendations to the Board on the remuneration of non-executive Directors;
- (c) to formulate the performance appraisal management policies of our senior management, develop appraisal programs and determine the appraisal targets;
- (d) to review and approve the compensation arrangements relating to the dismissal or removal of certain Directors for misconduct to ensure that such arrangements are in line with the terms of their employment contracts; if not, to ensure that the related compensation is reasonable and appropriate;
- (e) to supervise the performance appraisal and the remuneration assessment of the heads of various internal departments, branches and subsidiaries of the Company, excluding the heads of the internal audit department;
- (f) to review and conduct annual evaluations of the performance of duties by the Directors and senior management;
- (g) to make recommendations to the Board on the salary, welfare, rewards and penalty policies and programs and to oversee their implementation; and
- (h) other functions and powers authorized by the Board.

#### **Audit and Risk Management Committee**

The Audit and Risk Management Committee of the Company consists of three Directors, namely Mr. Hui Wan Fai (independent non-executive Director), Mr. Zhou Liulai (non-executive Director), and Mr. Meng Yan (independent non-executive Director). Mr. Hui Wan Fai currently serves as the chairman of the Audit and Risk Management Committee. The primary duties of the Audit and Risk Management Committee include, among others:

- (a) to review and oversee the Company's financial reporting procedures;
- (b) to make recommendations to the Board on the appointment, reappointment and removal of the external auditor, approve the remuneration and appointment terms of the external auditor and deal with issues concerning the resignation or dismissal of the external auditor;
- (c) to review and monitor the independence and objectivity of the external auditor and the effectiveness of auditing procedures in accordance with the applicable standards;
- (d) to develop the polices regarding the appointment of external auditor for the provision of non-audit services, and to implement such policies;
- (e) to monitor the authenticity, integrity and accuracy of the financial statements and reports of the Company, and review the important advice about the financial reporting as set out in related statements and reports;

- (f) to review the financial management, internal control and risk management system of the Company;
- (g) to be responsible for communication between the internal audit department and the external auditor and to supervise work coordination between them;
- (h) to review the financial and accounting policies and practices of the Company;
- (i) to review the risk management strategies and the solutions for major risks of the Company; and
- (j) other functions and powers authorized by the Board.

#### **SECRECY COMMITTEE**

The Company has established a secrecy committee and secrecy office pursuant to the requirements under the Administrative Measures of China Isotope & Radiation Company in relation to Secrecy. The secrecy office regularly organizes and supervises the review and examination conducted by departments in relation to secrecy, which includes reporting by the secrecy office of the results of review and examination to the secrecy committee in alignment with the working approach and policies of the state and the upper level, so as to ensure that the Company is able to observe the laws and regulations concerning state secrets. Our PRC Legal Advisor, King & Wood Mallesons, has confirmed that as of the Latest Practicable Date, the Group's business is not involved in any matters that are being deemed as state secrets by relevant competent authorities and institutions.

## ADDITIONAL CORPORATE MEASURES TO ASSIST INDEPENDENT NON-EXECUTIVE DIRECTORS

In order to assist the Company's Independent Non-executive Directors to better discharge their duties, the Company plans to take the following additional enhanced corporate measures:

- (1) The Company has established a consultancy committee which consists of six external experts to provide assistance and advice to the Independent non-executive Directors. Such experts will be selected from China Nuclear Society, China Isotope & Radiation Association and Chinese Medical Association Nuclear Medicine Branch. They shall be senior experts in isotope technology, radiation processing technology and nuclear medicine, or responsible persons in relevant enterprises, research institutions, government and hospitals with more than 10 years of work experience. The main responsibilities of the consultancy committee will be conducting research on the professional and technical issues involved in the daily operation of the Company and advising the Independent non-executive Directors in the relevant fields.
- (2) The committee will provide training to the Independent Non-executive Directors at least 15 hours per year, so as to enable the Independent Non-executive Directors to better understand the Group's business operation.

In particular, with the assistance of the consultancy committee, the Company will endeavor to make sure that each Independent Non-executive Director is able to (i) supervise the implementation and enforcement of the Non-competition Undertaking as well as the Group's connected transactions with CNNC and its associates; and (ii) make well-informed decisions in the Nomination Committee, Remuneration and Appraisal Committee and Audit and Risk Management Committee. It is expected

that the consultancy committee will be established and become effective upon the listing of the Company.

#### REMUNERATION AND COMPENSATION OF DIRECTORS AND SUPERVISORS

In 2015, 2016 and 2017, the aggregate amounts of fees, salaries, allowances, discretionary bonus, defined-contribution pension scheme and other benefits-in-kind (if applicable) paid to the Directors by the Company were RMB677,000, RMB210,000 and RMB2,150,000, respectively.

In 2015, 2016 and 2017, the aggregate amounts of fees, salaries, allowances, discretionary bonus, defined-contribution pension scheme and other benefits-in-kind (if applicable) paid to the Supervisors by the Company were RMB1,271,000, RMB1,285,000 and RMB1,178,000, respectively.

In 2015, 2016 and 2017, the aggregate amounts of fees, salaries, allowances, discretionary bonus, defined-contribution pension scheme and other benefits-in-kind (if applicable) paid to the senior management by the Company were RMB3,728,000, RMB4,341,000 and RMB5,893,000, respectively.

In 2015, 2016 and 2017, the aggregate amounts of fees, salaries, allowances, discretionary bonus, defined-contribution pension scheme and other benefits-in-kind (if applicable) paid to the five highest paid individuals (excluding the Directors and Supervisors) by the Company were RMB997,000, RMB1,938,000 and RMB2,565,000, respectively.

During the Track Record Period, no incentive payment for joining or having joined the Company was paid or payable to any Directors, Supervisors or the five highest paid individuals by the Company. During the Track Record Period, no remuneration was paid or payable to any Directors, former Directors, Supervisors, former Supervisors or the five highest paid individuals by the Company for compensation for termination of their management positions in any subsidiaries of the Company.

During the Track Record Period, none of the Directors or Supervisors gave up or agreed to give up any remuneration or benefits-in-kind. Save as disclosed above, during the Track Record Period, no other amounts were paid or payable to any Directors, Supervisors or the five highest paid individuals by the Company or any of its subsidiaries.

According to our remuneration policies, the Remuneration and Appraisal Committee will take into account various factors in evaluating the remuneration amount payable to Directors, Supervisors and employees, including salaries paid by comparable companies, and the term, commitment, duties and performance of the Directors, Supervisors and senior management (as the case may be). It is estimated that, in accordance with the arrangements currently in effect, the aggregate amounts of remuneration (excluding any discretionary bonus) payable by the Company to the Directors and Supervisors are approximately RMB300,000 and RMB1,094,885 as of the year ending December 31, 2018, respectively.

#### INTEREST OF DIRECTORS AND SUPERVISORS

Save as disclosed in this prospectus, to the best knowledge, information and belief of Directors having made all reasonable inquiries, none of the Directors and Supervisors: (i) held any other position in other members of the Company or the Group as of the Latest Practicable Date; (ii) had other relationships with any of the Directors, Supervisors or senior management or the main or controlling shareholders of the Company as of the Latest Practicable Date; and (iii) held any directorship in other

public listed companies in the last three years immediately preceding the date of this prospectus. Save as disclosed herein, to the best knowledge, information and belief of the Directors having made all reasonable inquiries, there was no other matters with respect to the appointment of the Directors that need to be brought to the attention of our Shareholders and there was no information relating to our Directors that is required to be disclosed pursuant to Rule 13.51(2)(a) to (v) of the Listing Rule. Save as disclosed herein, none of our Directors have any interests in any businesses, other than our Group's business, which competes or is likely to compete, either directly or indirectly, with our Group's business.

#### **COMPLIANCE ADVISOR**

We have appointed China International Capital Corporation Hong Kong Securities Limited as our compliance advisor pursuant to Rule 3A.19 and Rule 19A.05 of the Listing Rules. Pursuant to Rule 3A.23 of the Listing Rules, we will have to consult and, if necessary, seek advice from our compliance advisor in the following circumstances:

- (a) before the publication of any regulatory announcement, circular or financial report;
- (b) when a transaction, which might be a disclosable or connected transaction, is contemplated, including, but not limited to, the issuance of Shares and the repurchase of Shares;
- (c) where the Company proposes to use the proceeds of the Global Offering in a manner different from that detailed in this prospectus or where the business activities, developments or results of the Company deviate from any forecast, estimate or other data in this prospectus; and
- (d) where the Stock Exchange makes an inquiry of the Company regarding unusual movements in the price or trading volume of the Shares.

Pursuant to Rule 19A.06 of the Listing Rules, our compliance advisor will timely notify us of any amendments or supplements to the Listing Rules issued by the Stock Exchange. Our compliance advisor will also notify us of any amendments or supplements to the applicable laws and guidelines.

The term of the compliance advisor will be for a period commencing on the date of the Listing and ending on the date on which the Company distributes the annual report in respect of the financial results for the first full financial year commencing after the date of the Listing, and will be subject to renewal by mutual agreement.

## **SHARE CAPITAL**

#### **SHARE CAPITAL**

As of the Latest Practicable Date, the registered share capital of our Company was RMB239,906,100, consisting of 239,906,100 Shares with a nominal value of RMB1.00 each.

Assuming the Over-allotment Option is not exercised, the share capital of our Company immediately following the completion of the Global Offering will be as follows:

Description of Shares	Number of Shares	Approximate percentage to total share capital
Domestic Shares <sup>(1)</sup>	239,906,100	75.00%
H Shares to be issued under the Global Offering	79,968,700	25.00%
	319,874,800	100%

Note:

Assuming the Over-allotment Option is exercised in full, the share capital of our Company immediately following the completion of the Global Offering will be as follows:

<b>Description of Shares</b>	Number of Shares	Approximate percentage to total share capital
Domestic Shares <sup>(1)</sup>	239,906,100	72.29%
H Shares to be issued under the Global Offering	91,964,000	27.71%
	331,870,100	100%

Note:

#### CONVERSION OF OUR UNLISTED SHARES INTO H SHARES

#### **Conversion of Unlisted Shares**

We have two classes of ordinary shares: H Shares and Domestic Shares. Our Domestic Shares are unlisted Shares which are currently not listed or traded on any stock exchange. Upon completion of the Global Offering, all unlisted Shares are Domestic Shares held by CNNC, CIAE, NPIC, CNNC Fund, 404 Company, Baoyuan Investment, CAIIF and CAIC and, therefore, the scope of our unlisted Shares is the same as that of our Domestic Shares. The term "unlisted Shares" is used to describe whether certain Shares are listed on a stock exchange, and is not unique to PRC laws. As confirmed by the Company's PRC legal advisor, King & Wood Mallesons, the use of the term, "unlisted Shares", in the Company's Article of Association does not contravene any PRC laws and regulations (including the Special Regulations and Mandatory Provisions).

According to the stipulations of the State Council's securities regulatory authority and the Articles of Association, our unlisted Shares may be converted into H Shares. The conversion of H shares only applies to our unlisted Shares. Such converted H Shares may be listed or traded on an overseas stock exchange, provided that prior to the conversion and trading of such converted shares, the requisite internal approval processes have been duly completed and the approval from the relevant PRC regulatory authorities, including CSRC, have been obtained. In addition, such conversion, trading and listing shall in all respects comply with the regulations prescribed by the State Council's securities regulatory authorities and the regulations, requirements and procedures prescribed by the relevant overseas stock exchange.

Based on the methodology and the procedures for the conversion of our unlisted Shares into H Shares as disclosed in this section, we can apply for the listing of all or any portion of our Domestic

<sup>(1)</sup> As of the Latest Practicable Date, these Domestic Shares were held by CNNC, CIAE, NPIC, CNNC Fund, 404 Company, Baoyuan Investment, CAIIF and CAIC.

<sup>(1)</sup> These Domestic Shares will be held by CNNC, CIAE, NPIC, CNNC Fund, 404 Company, Baoyuan Investment, CAIIF and CAIC.

#### **SHARE CAPITAL**

Shares on the Hong Kong Stock Exchange as H Shares in advance of any proposed conversion to ensure that the conversion process can be completed promptly upon notice to the Hong Kong Stock Exchange and delivery of Shares for entry on the H Share register. As any listing of additional Shares after our initial listing on the Hong Kong Stock Exchange is ordinarily considered by the Hong Kong Stock Exchange to be a purely administrative matter, it will not require such prior application for listing at the time of our initial listing in Hong Kong.

No class shareholder voting is required for the listing and trading of the converted Shares on an overseas stock exchange. Any application for listing of the converted Shares on the Hong Kong Stock Exchange after our initial listing is subject to prior notification by way of announcement to inform Shareholders and the public of such proposed conversion.

#### **Mechanism and Procedures for Conversion**

After all the requisite approvals have been obtained, the following procedures will need to be completed in order to effect the conversion: the relevant unlisted Shares will be withdrawn from our Domestic Share register, and we will then re-register such Shares on our H Share register maintained in Hong Kong and instruct the H Share Registrar to issue H Share certificates. Registration on our H Share register will be conditional on (i) our H Share Registrar lodging with the Stock Exchange a letter confirming the proper entry of the relevant H Shares on the H Share register and the due dispatch of H Share certificates, and (ii) the admission of the H Shares to trading on the Stock Exchange complying with the Listing Rules, the General Rules of CCASS and the CCASS Operational Procedures in force from time to time. Until the transferred Shares are re-registered on our H Share register, such Shares would not be listed as H Shares.

So far as our Directors are aware, none of our promoters currently proposes to convert any of the unlisted Shares held by it into H Shares.

#### **RANKING**

Our Domestic Shares and H Shares are both ordinary shares in the share capital of our Company. H Shares may only be subscribed for and traded in Hong Kong dollars. Domestic Shares may only be subscribed for and traded in RMB. Apart from certain qualified domestic institutional investors in the PRC or through Shanghai-Hong Kong Stock Connect and Shenzhen-Hong Kong Stock Connect, H Shares generally cannot be subscribed for by or traded between legal or natural persons of the PRC. However, Domestic Shares (unlisted) can only be subscribed for by and traded between legal or natural persons of the PRC, qualified foreign institutional investors and qualified foreign strategic investors. We shall pay all dividends in respect of H Shares in Hong Kong dollars and all dividends in respect of Domestic Shares in RMB. For details of the circumstances under which general meetings and class meetings of our Company are required, please refer to the section headed "Appendix V — Summary of Articles of Association".

Except as described in this prospectus and in relation to the dispatch of notices and financial reports to our Shareholders, dispute resolution, the registration of Shares in different sections of our register of Shareholders, the method of share transfer and the appointment of dividend receiving agents, which are all provided for in the Articles of Association and summarized in Appendix V to this prospectus, our Domestic Shares and our H Shares will rank *pari passu* with each other in all respects and, in particular, will rank equally for all dividends or distributions declared, paid or made after the

#### **SHARE CAPITAL**

date of this prospectus. However, the transfer of Domestic Shares is subject to such restrictions as PRC law may impose from time to time. Save for the Global Offering, we do not propose to carry out any public or private issue or to place securities simultaneously with the Global Offering or within the six months following the Listing Date. We have not approved any share issue plan other than the Global Offering.

#### TRANSFER OF SHARES ISSUED PRIOR TO LISTING DATE

The Company Law provides that in relation to the Hong Kong Public Offering of a company, the shares issued by a company prior to the Hong Kong Public Offering shall not be transferred for a period of one year from the date on which the publicly offered shares are traded on any stock exchange. Accordingly, Shares issued by our Company prior to the Listing Date shall be subject to this statutory restriction and shall not be transferred for a period of one year from the Listing Date.

#### REGISTRATION OF SHARES NOT LISTED ON AN OVERSEAS STOCK EXCHANGE

According to the Notice of Centralized Registration and Deposit of Non-overseas Listed Shares of Companies Listed on an Overseas Stock Exchange (《關於境外上市公司非境外上市股份集中登記存管有關事宜的通知》) issued by CSRC, an overseas listed company seeking initial public offering of overseas listed foreign shares is required to register its shares that are not listed on an overseas stock exchange with the China Securities Depository and Clearing Corporation Limited within 15 business days upon overseas listing and provide a written report to CSRC regarding the centralized registration and deposit of its non-overseas listed shares as well as the current offering and listing of shares.

#### THE CORNERSTONE PLACING

We have entered into four cornerstone investment agreements with the following investors (each a "Cornerstone Investor", collectively the "Cornerstone Investors").

Based on the Offer Price of HK\$17.80 per Offer Share (being the low-end of the Offer Price range), the total number of H Shares to be subscribed for by the Cornerstone Investors would be 39,984,200, representing approximately (i) 12.5% of the Shares in issue upon the completion of the Global Offering and 50.0% of the Offer Shares, assuming that the Over-allotment Option is not exercised; or (ii) 12.0% of the Shares in issue upon completion of the Global Offering and 43.5% of the Offer Shares, assuming that the Over-allotment Option is fully exercised.

Based on the Offer Price of HK\$24.20 per Offer Share (being the high-end of the Offer Price range), the total number of H Shares to be subscribed for by the Cornerstone Investors would be 39,267,000, representing approximately (i) 12.3% of the Shares in issue upon the completion of the Global Offering and 49.1% of the Offer Shares, assuming that the Over-allotment Option is not exercised; or (ii) 11.8% of the Shares in issue upon completion of the Global Offering and 42.7% of the Offer Shares, assuming that the Over-allotment Option is fully exercised.

Each Cornerstone Investor has agreed that, if the requirement of not more than 50% of the Shares in public hands at the time of the Listing being beneficially owned by the three largest public Shareholders as set out in Rule 8.08(3) of the Listing Rules cannot be met, the Company and the Joint Global Coordinators have the right to, in their sole and absolute discretion, adjust the allocation of the number of the Offer Shares to be purchased by it so as to satisfy such requirement.

Details of the actual number of the Offer Shares to be allocated to the Cornerstone Investors will be disclosed in the allotment result announcement to be issued by the Company on or around Thursday, July 5, 2018.

To the best knowledge of our Company, each of the Cornerstone Investors is an Independent Third Party and is not our connected person.

The Cornerstone Placing forms part of the International Offering. None of the Cornerstone Investors will subscribe for any Offer Shares under the Global Offering other than pursuant to the respective cornerstone investment agreements. The Offer Shares to be subscribed for by the Cornerstone Investors will rank *pari passu* in all respects with the other fully paid H Shares in issue and will be counted towards the public float of our Company. None of the Cornerstone Investors has a representative on our Board. The Offer Shares to be subscribed for by the Cornerstone Investors will not be affected by any reallocation of the Offer Shares between the International Offering and the Hong Kong Public Offering in the event of over-subscription under the Hong Kong Public Offering as described in the section headed "Structure of the Global Offering — The Hong Kong Public Offering" in this prospectus.

#### THE CORNERSTONE INVESTORS

We have entered into cornerstone investment agreements with each of the following Cornerstone Investors in respect of the Cornerstone Placing:

Based on the Offer Price of HK\$21.0	
(being the mid-point of the Offer Price range)	

		(being the mid-point of the offer Tree range)					
Cornerstone Investor	Investment amount/ Number of H Shares to be subscribed for by the Cornerstone Investor	Approximate percentage of the Shares in issue immediately following the completion of the Global Offering (assuming that the Over-allotment Option is not exercised)	Approximate percentage of the Shares in issue immediately following the completion of the Global Offering (assuming that the Over-allotment Option is exercised in full)	Approximate percentage of the H Shares in issue immediately following the completion of the Global Offering (assuming that the Over-allotment Option is not exercised)	Approximate percentage of the H Shares in issue immediately following the completion of the Global Offering (assuming that the Over-allotment Option is exercised in full)		
Sure Advance Holdings Limited	11,906,400	3.7%	3.6%	14.9%	12.9%		
Shanghai Pharmaceuticals (HK) Investment Limited	8,006,000	2.5%	2.4%	10.0%	8.7%		
Investment Management Co., Ltd	US\$30 million	3.5%	3.4%	14.0%	12.2%		
Corporation Limited	US\$30 million <sup>(1)</sup>	$2.8\%^{(2)}$	2.7%(2)	$11.1\%^{(2)}$	9.6%(2)		

Note:

Information about our Cornerstone Investors is set forth below.

#### **Sure Advance Holdings Limited**

**Sure Advance Holdings Limited** ("**Sure Advance**") has agreed to subscribe for 11,906,400 H Shares at the Offer Price, representing approximately (i) 3.7% of the Shares, and (ii) 14.9% of the H Shares, in issue upon completion of the Global Offering, assuming that the Over-allotment Option is not exercised.

Sure Advance is a company incorporated in Hong Kong with limited liability and serves as an investment platform of its parent company. Sure Advance is indirectly wholly-owned by Shanghai Industrial Holdings Limited ("SIHL"), a company listed on the Main Board of the Hong Kong Stock Exchange (Stock Code: 363) which is principally engaged in the business of infrastructure facilities, real estate and consumer products. SIHL is in turn beneficially owned as to approximately 59% by Shanghai Industrial Investment (Holdings) Company Limited ("SIIC"), which is a company incorporated in Hong Kong with limited liability and an overseas conglomerate controlled by the Shanghai municipal government in China.

As non-wholly-owned fellow subsidiaries, Sure Advance and SPH HK (as defined below) are connected persons of SIIC (as defined below) under the Listing Rules and as such, are not independent from each other. Please refer to the section headed "Substantial Shareholders" for details of SIIC's interest in the H Shares immediately following the completion of the Global Offering.

<sup>(1)</sup> Including brokerage of 1%, SFC transaction levy of 0.0027% and Stock Exchange trading fee of 0.005% and in any event, the number of Offer Shares to be purchased will not exceed 15,993,600 H Shares

<sup>(2)</sup> Taking into account the possible reduction of such number of the Offer Shares so as to satisfy the requirement of not more than 50% of the Shares in public hands at the time of the Listing being beneficially owned by the three largest public Shareholders as set out in Rule 8.08(3) of the Listing Rules

## Shanghai Pharmaceuticals (HK) Investment Limited

**Shanghai Pharmaceuticals (HK) Investment Limited ("SPH HK"**) has agreed to subscribe for 8,006,000 H Shares, representing approximately (i) 2.5% of the Shares, and (ii) 10.0% of the H Shares, in issue upon completion of the Global Offering, assuming that the Over-allotment Option is not exercised.

SPH HK is a company incorporated in Hong Kong with limited liability and a directly wholly-owned subsidiary of Shanghai Pharmaceuticals Holding Co. Ltd ("SPH"). SPH is a joint stock company incorporated in the PRC with limited liability (the shares of which are listed on the Main Board of the Hong Kong Stock Exchange (Stock Code: 2607) and the Shanghai Stock Exchange (Stock Code: 601607)). SPH HK is the offshore investment and financing platform of SPH, and engages in overseas investment and related business based on SPH's strategic and development plans. SPH is indirectly held as to 33.6% by SIIC and is mainly involved in four pharmaceutical segments: research and development, manufacturing, distribution and retail. SPH and its subsidiaries are core enterprises within SIIC's health segment.

As non-wholly-owned fellow subsidiaries, Sure Advance and SPH HK are connected persons of SIIC and as such, are not independent from each other. Please refer to the section headed "Substantial Shareholders" for details of SIIC's interest in the H Shares immediately following the completion of the Global Offering.

## Beijing Industrial Developing Investment Management Co., Ltd.

Beijing Industrial Developing Investment Management Co., Ltd. ("BIDIMC") has agreed to subscribe for such number of Offer Shares (rounded down to the nearest whole board lot of 200 H Shares) as may be purchased with an amount of approximately US\$30 million at the Offer Price. Assuming an Offer Price of HK\$21.0, being the mid-point of the indicative range of the Offer Price of HK\$17.80 to HK\$24.20 per Share, BIDIMC will subscribe for 11,208,000 H Shares, which would represent approximately (i) 3.5% of the Shares, and (ii) 14.0% of the H Shares, in issue upon completion of the Global Offering, assuming the Over-allotment Option is not exercised.

BIDIMC is a directly wholly-owned subsidiary of Beijing State-owned Assets Management Co., Ltd. ("BSAM"), which serves as an investment platform of BSAM in the science and technology and modern manufacturing sector. BIDIMC is also an important investment and financing platform for the development of high-tech industries in Beijing. BSAM is a large-size state-owned investment holding company authorized by the Beijing Municipal People's Government, which specializes in capital operation.

#### **China Structural Reform Fund Corporation Limited**

China Structural Reform Fund Corporation Limited ("China Structural Reform Fund") has agreed to subscribe for such number of Offer Shares (rounded down to the nearest whole board lot of 200 H Shares) as may be purchased with an amount of approximately US\$30 million (before deducting the brokerage, the SFC transaction levy and the Stock Exchange trading fee payable) at the Offer Price which in any event shall not exceed 15,993,600 H Shares. Assuming an Offer Price of HK\$21.0, being the mid-point of the indicative range of the Offer Price of HK\$17.80 to HK\$24.20 per Offer Share, China Structural Reform Fund will subscribe for 8,863,800 H Shares, which would represent approximately (i) 2.8% of the Shares, and (ii) 11.1% of the H Shares, in issue upon completion of the Global Offering, assuming the Over-allotment Option is not exercised.

China Structural Reform Fund is a company established in the PRC with limited liability, which is indirectly held as to 58% by SASAC and the remaining 42% by a group of certain other state-owned enterprises. China Structural Reform Fund is mainly engaged in the business of private fundraising, equity investment, investment consulting, project investment, asset management and business management consulting.

#### CONDITIONS PRECEDENT

The subscription obligation of each Cornerstone Investor is subject to, among other things, the following conditions precedent:

- (1) the Hong Kong Underwriting Agreement and the International Underwriting Agreement having been entered into and having become effective and unconditional (in accordance with their respective original terms or as subsequently waived or varied by agreement of the parties thereto) by no later than the time and date as specified in such agreements;
- (2) neither the Hong Kong Underwriting Agreement nor the International Underwriting Agreement having been terminated;
- (3) the Listing Committee having granted the approval for the listing of, and permission to deal in, the H Shares and such approval or permission not having been revoked;
- (4) the Offer Price having been agreed between the Company and the Joint Global Coordinators;
- (5) no Laws (as defined in the relevant cornerstone investment agreement) shall have been enacted or promulgated to prohibit the consummation of the transactions contemplated in the Hong Kong Public Offering, the International Offering or the relevant cornerstone investment agreement, and there shall be no orders or injunctions from a court of competent jurisdiction in effect precluding or prohibiting consummation of such transactions.

#### RESTRICTIONS ON DISPOSAL BY THE CORNERSTONE INVESTORS

Each of the Cornerstone Investors has agreed that, it will not and will procure its affiliates not to, at any time during the period of six months following the Listing Date, directly or indirectly, (i) dispose of, in any way, any of the H Share subscribed by it under the relevant cornerstone investment agreement (the "Relevant Shares") or any interest in any company or entity holding any of the Relevant Shares; (ii) agree or contract to, or publicly announce an intention to, enter into any such transaction; or (iii) allow itself to undergo a change of control (as defined in the Takeovers Code) at the level of its ultimate beneficial owner.

### SUBSTANTIAL SHAREHOLDERS

Immediately following the completion of the Global Offering (and assuming the Overallotment Option is not exercised), our share capital will comprise of 239,906,100 Domestic Shares and 79,968,700 H Shares, representing approximately 75% and 25% of the total share capital of our Company, respectively. So far as our Directors are aware, the following person will, immediately after the completion of the Global Offering (assuming the Over-allotment Option is not exercised), have an interest or short position in the Shares or underlying Shares which are required to be disclosed to our Company and the Stock Exchange pursuant to the provisions of Divisions 2 and 3 of Part XV of the SFO, or, directly or indirectly, be interested in 5% or more of the nominal value of any class of share capital carrying the rights to vote in all circumstances at the general meetings of our Company:

Approximate

Shareholder	Class of Shares to be held after the Global Offering	Nature of interest	Number of Shares to be held after the Global Offering	percentage of shareholding in the relevant class of Shares after the Global Offering <sup>(1)</sup>	percentage of shareholding in the total share capital of our Company after the Global Offering <sup>(2)</sup>
CNNC	Domestic Shares	Beneficial interest/	236,150,233	98.43%	73.83%
		interest of controlled corporation(3)			
CIAE	Domestic Shares	Beneficial interest	58,534,835	24.40%	18.30%
NPIC	Domestic Shares	Beneficial interest	46,994,835	19.59%	14.69%
CNNC Fund	Domestic Shares	Beneficial interest	18,779,342	7.83%	
Shanghai Industrial Investment (Holdings) Company	H Shares	Beneficial interest /	19,912,400	24.9%	6.2%
Limited ("SIIC")(4)(5)		interest of controlled corporation			
Shanghai Industrial Investment Treasury Company	H Shares	Beneficial interest /	11,906,400	14.9%	3.7%
Limited <sup>(4)(5)</sup>		interest of controlled corporation			
Shanghai Investment Holdings Limited <sup>(4)(5)</sup>	H Shares	Beneficial interest /	11,906,400	14.9%	3.7%
CI 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	** 01	interest of controlled corporation	11 006 100	14.00/	2.70/
Shanghai Industrial Holdings Limited	H Shares	Beneficial interest /	11,906,400	14.9%	3.7%
("SIHL") <sup>(4)(5)</sup>	TT CI	interest of controlled corporation	11.006.400	14.00/	2.70/
S.I. Infrastructure (Holdings) Limited <sup>(4)(5)</sup>	H Shares	Beneficial interest /	11,906,400	14.9%	3.7%
C A 4 II-14: I ::	H Shares	interest of controlled corporation Beneficial interest	11.006.400	14.00/	2.70/
Sure Advance Holdings Limited ("Sure Advance")(4)(5)	n Shares	Beneficial interest	11,906,400	14.9%	3.7%
Shanghai Shangshi (Group) Co., Ltd. ("Shanghai	H Shares	Beneficial interest /	8,006,000	10.0%	2.5%
Shangshi") (4)(5)	11 Shares	interest of controlled corporation	0,000,000	10.070	2.570
Shanghai Pharmaceuticals Holding Co. Ltd	H Shares	Beneficial interest /	8,006,000	10.0%	2.5%
("SPH")(4)(5)	TI DIMITED	interest of controlled corporation	0,000,000	10.070	2.570
Shanghai Pharmaceuticals (HK) Investment Limited	H Shares	Beneficial interest	8,006,000	10.0%	2.5%
("SPH HK") <sup>(4)(5)</sup>			-,,		
Beijing Industrial Developing Investment	H Shares	Beneficial interest	11,208,000	14.0%	3.5%
Management Co., Ltd. (4)(5)					
China Structural Reform Fund Corporation	H Shares	Beneficial interest	8,863,800	11.1%	2.8%
Limited(4)(5)					

<sup>(1)</sup> The calculation is based on the percentage of shareholding in Domestic Shares of our Company after the Global Offering.

For details of our Directors', Supervisors' and chief executive's interests in the Shares immediately following the completion of the Global Offering, please refer to the section headed "Appendix VI — Statutory and General Information — 4. Disclosure of Interests."

Save as disclosed herein, the Directors are not aware of any other person who will immediately following the Global Offering, have an interest or short position in Shares or underlying shares of our

<sup>(2)</sup> The calculation is based on the total number of 319,874,800 Shares in issue immediately after the Global Offering (assuming the Overallotment Option is not exercised).

<sup>(3)</sup> Immediately after the Global Offering (assuming the Over-allotment Option is not exercised), CNNC will directly hold 106,676,903 Domestic Shares of the Company, representing approximately 44.47% of the domestic share capital of our Company. Each of CIAE and NPIC is a public institute controlled and managed by CNNC and will hold 58,534,835 and 46,994,835 Domestic Shares, representing approximately 24.40% and 19.59% of the domestic share capital of our Company, respectively. CNNC Fund is a non-wholly owned subsidiary of CNNC and will hold 18,779,342 Domestic Shares, representing approximately 7.83% of the domestic share capital of our Company. Each of 404 Company and Baoyuan Investment is a wholly owned subsidiary of CNNC and will hold 3,755,868 Domestic Shares and 1,408,450 Domestic Shares, representing approximately 1.57% and 0.59% of the domestic share capital of our Company, respectively. CNNC is deemed to be interested in the Domestic Shares held by CIAE, NPIC, CNNC Fund, 404 Company and Baoyuan Investment under the SFO, which in aggregate representing approximately 98.43% of the domestic share capital of our Company.

<sup>(4)</sup> The calculation is based on the Offer Price of HK\$21.0 (being the mid-point of the Offer Price range).

<sup>(5)</sup> By virtue of the SFO, SIIC is deemed to have an interest in the 19,912,400 H Shares (representing approximately 24.9% of the total number of H Shares of our Company immediately after completion of the Global Offering (assuming the Over-allotment Option is not exercised)) held by Sure Advance and SPH HK, of which each was a non-wholly-owned subsidiary of SIIC. As of the Latest Practicable Date, SIIC held 100% equity interest in Shanghai Industrial Investment Treasury Company Limited, while Shanghai Industrial Investment Treasury Company Limited, which in turn held approximately 47.8% shares in SIHL SIHL directly held 100% equity interest in S.I. Infrastructure (Holdings) Limited, which directly held 100% equity interest in Sure Advance. As of the Latest Practicable Date, SIIC and its subsidiaries directly and indirectly held 33.61% equity interest in SPH, while Shanghai Shangshi directly and indirectly held 33.02% equity interest in SPH.

# SUBSTANTIAL SHAREHOLDERS

Company, which would be required to be disclosed to our Company and the Stock Exchange under the provisions of Divisions 2 and 3 of Part XV of the SFO, or, directly or indirectly, be interested in 5% or more of the nominal value of any class of share capital carrying rights to vote in all circumstances at general meetings of our Company.

We are not aware of any arrangement which may result in any change of control in our Company at any subsequent date.

#### **OVERVIEW**

As at the Latest Practicable Date, CNNC directly holds 44.47% of our share capital, and indirectly holds 53.97% of our share capital through its controlled entities, i.e., CIAE, NPIC, CNNC Fund, 404 Company and Baoyuan Investment. CIAE and NPIC are public institutes directly controlled and managed by CNNC. CNNC Fund is a company controlled by CNNC. 404 Company is an indirectly wholly-owned subsidiary of CNNC, and Baoyuan Investment is a directly wholly-owned subsidiary of CNNC. Following completion of the Global Offering, CNNC will directly and through the above controlled entities indirectly hold approximately 73.83% of our total enlarged issued share capital in aggregate (assuming no exercise of the Over-allotment Option) and will continue to be our controlling shareholder.

### **DELINEATION OF BUSINESS AND COMPETITION**

## **Our Principal Business**

Our Group is primarily engaged in the research, development, manufacturing and sale of diagnostic and therapeutic radiopharmaceuticals and radioactive source products for medical and industrial applications. We also provide irradiation services for sterilization purpose and EPC services for the design, manufacturing and installation of gamma ray irradiation facilities. In addition, we provide independent clinical laboratory services to hospitals and other medical institutions. For details of the Group's business, please refer to the section headed "Business".

# **CNNC's Principal Business**

CNNC was established on June 29, 1999 as an enterprise owned by the whole people, with a registered capital of RMB19,987,380,000. CNNC (for the description in this sub-section, excluding the Group) is principally engaged in scientific research and development, construction and production operations in nuclear power, nuclear power generation, nuclear fuel, natural uranium, nuclear environmental protection, non-nuclear civilian products, new energy sources, etc. As of December 31, 2017, the total assets of CNNC was approximately RMB517,776.1 million.

#### CNNC's interests in certain Excluded Entities

As of the Latest Practicable Date, CNNC was entitled to exercise, or control the exercise of, 10% or more of the voting power at the general meeting of the following entities carrying out business which competes, or is likely to compete, directly or indirectly with our principal businesses (the "Excluded Entities")

No.	Name of the Excluded Entities	Equity interest held by CNNC(as of December 31, 2017)	Principal business	Excluded business	Reason for exclusion
1	CIRP	Not applicable, CIRP is a public institute directly controlled and managed by CNNC	Research, development and application in aspects of radiation protection, nuclear emergency and safety, radiological medicine and environmental medicine, nuclear environmental science, radioactive waste management and nuclear facility decommissioning, irradiation technology, environmental protection technology, nuclear electronic information technology, biological material technology, diagnosis and treatment of occupational disease and also provides technical support to national	Irradiation services	The excluded business involves non-operating state- owned assets, which is impractical to be isolated

No.	Name of the Excluded Entities	Equity interest held by CNNC(as of December 31, 2017)	Principal business	Excluded business	Reason for exclusion
2	CIAE	Not applicable, CIAE is a public institute directly controlled and managed by CNNC	functional departments with respect to radiation protection and nuclear safety. Nuclear physics research, reactor engineering research and design, radiochemical research, fast reactor research and design, isotope research, nuclear technology application and research, radiation safety research	Radioactive sources and reactor irradiation services	The excluded business involves non-operating state-owned assets, which is impractical to be isolated
3	NPIC	Not applicable, NPIC is a public institute directly controlled and managed by CNNC	Nuclear power engineering design, integrated equipment supply of nuclear steam supply system, reactor operation and applied research, reactor engineering experimental research, nuclear fuel and materials research, isotope production and nuclear technology services and applications	Isotope reactor irradiation services and sales of radioactive-source-based instruments	The excluded business involves non-operating state-owned assets, which is impractical to be isolated
4	404 Company	100%	Nuclear research and production, uranium conversion, reprocessing of spent fuel, decommission of nuclear facilities and radioactive waste treatment and disposal	Radioactive sources and recycling of radioactive sources	404 Company is mainly engaged in the scientific research and production in the military industry, and the excluded business is not the principal business of 404 Company and is impractical to be isolated
5	CNEIC	100%	Import and export trade of uranium products, nuclear fuel cycling equipment and nuclear power technologies and equipment	Import agency services for radioactive isotopes, radioactive therapeutic apparatus	CNEIC is an integrated platform for the import and export of nuclear power equipment of CNNC, the excluded business is not the principle business of CNEIC and is impractical to be isolated
6	Yunke Pharm	47.89%	Technical research of radiopharmaceuticals, product development, production and sales, technical consultancy and technical services	Iodine-125 sealed source and Yunke injection	The controlling shareholder of Yunke Pharm is a listed company which is an Independent Third Party. CNNC has no control over its decision-making process

## **CIRP**

CIRP is a public institute directly controlled and managed by CNNC. CIRP is primarily engaged in the research, development and application in aspects of radiation protection, nuclear emergency and safety, radiological medicine and environmental medicine, nuclear environmental science, radioactive waste management and nuclear facility decommissioning, irradiation technology, environmental protection technology, nuclear electronic information technology, biological material technology, diagnosis and treatment of occupational disease and also provides technical support to national functional departments with respect to radiation protection and nuclear safety. As of December 31, 2017, the total assets of CIRP were approximately RMB1,063.04 million.

Prior to the Listing of the Company, CIRP was engaged in certain irradiation service business similar to that of the Group. Based on the following reasons, the Directors of the Company consider that there is no substantial competition between the Group and CIRP in this regard:

- CIRP's irradiation service business was much smaller in scale as compared to that of the Group. For each of the three years ended December 31, 2015, 2016 and 2017, the revenue and gross profit CIRP derived from irradiation service business accounted for not more than 1.05% and 0.48% of those of the Group, respectively.
- Irradiation service business was not and will not become CIRP's core business or business development focus in the future. For each of the three years ended December 31, 2015, 2016 and 2017, irradiation service business accounted for not more than 0.13% and 0.30% of CIRP's revenue and gross profit, respectively.

On August 12, 2016, the Company entered into a non-competition and strategic cooperation agreement (the "CIRP's Non-competition Undertaking") with CIRP, pursuant to which (i) the Company will provide CIRP with fund for its high-end irradiation research and development. The amount of the fund will be determined in accordance with the specific filing reports of the scientific research projects which CIRP submits to the Company on an annual basis; (ii) CIRP will discontinue its external irradiation business, and can only use its related irradiation facilities for internal scientific research for CIRP and its member units. CIRP's Non-competition Undertaking will be valid from the Listing Date until the earlier of: (i) the delisting of the H shares of the Company; (ii) termination of the agreement as agreed by the parties due to material changes in the conditions and circumstances for performance of the agreement; or (iii) any party being unable to perform the agreement due to bankruptcy by court orders, force majeure, etc. For details of the fund provided by the Company to CIRP for high-end irradiation research and development, please refer to the paragraph headed "Connected Transactions — Non-exempted Transactions — Products and Services Supply Framework Agreement".

After the Listing, according to CIRP's Non-competition Undertaking, CIRP could only provide irradiation services and the relevant research services for its internal use purpose. As a result, the target customers of CIRP will be clearly delineated from the Group's target customers. Based on the above, the Directors of the Company consider there is no substantial competition between CIRP and the Group in this regard.

### **CIAE**

CIAE is a public institute directly controlled and managed by CNNC. CIAE is primarily engaged in nuclear physics research, reactor engineering research and design, radiochemical research, fast reactor research and design, isotope research, nuclear technology application and research, radiation safety research. As of December 31, 2017, the total assets of CIAE were approximately RMB13,311.01 million.

Prior to the Listing of the Company, CIAE was engaged in the business of radioactive sources and reactor irradiation services which were similar to those carried out by the Group. Based on the following reasons, the Directors of the Company consider that there is no substantial competition between the Group and CIAE in this regard:

• CIAE's business of radioactive sources and reactor irradiation services were much smaller in scale as compared to that of the Group. For each of the three years ended December 31,

2015, 2016 and 2017, the revenue and gross profit CIAE derived from radioactive sources and reactor irradiation services accounted for not more than 1.98% and 0.81% of those of the Group.

• Radioactive sources and reactor irradiation services were not and will not become CIAE's core business or business development focus in future. For each of the three years ended December 31, 2015, 2016 and 2017, CIAE's radioactive sources and reactor irradiation services accounted for no more than 2.54% of its total revenue.

On August 1, 2016, the Company entered into a non-competition and exclusive sales cooperation agreement (the "CIAE's Non-competition Undertaking") with CIAE in respect of radioactive sources, isotope and irradiation business, pursuant to which (i) the Company will be an exclusive sales agent of the standard radioactive sources produced by CIAE; (ii) the Company may consider acquiring a controlling stake in Beijing Leike Mechatronic Engineering Technology Co., Ltd., ("Leike") a subsidiary of CIAE, from CIAE at a market price as and when appropriate, and will be an exclusive sales agent of the non-destructive testing radioactive sources produced by Leike before the completion of such acquisition; and (iii) CIAE will no longer provide Independent Third Parties with isotope reactor irradiation services that are the same as those to be provided to the Company. The CIAE's Non-competition Undertaking will be effective from the Listing Date until the earlier of: (i) the delisting of H shares of the Company; (ii) termination of the agreement as agreed by the parties due to material changes in conditions and circumstances for performance of the agreement; or (iii) any party being unable to perform the agreement due to bankruptcy by court orders, force majeure, etc.

Pursuant to CIAE's Non-competition Undertaking, on August 30, 2016, the Company and CIAE entered into an exclusive sales agreement in respect of the standard radioactive sources and nondestructive testing radioactive sources. Under the exclusive sales agreement, the Company is a distributor rather than an agent of the standard radioactive sources and non-destructive testing radioactive sources produced by CIAE and/or its associates. There's no agency fee arrangement between the Company and CIAE. With respect to standard radioactive sources, the Company itself doesn't produce, and is the exclusive distributor of, the standard radioactive sources produced by CIAE. With regard to the non-destructive testing radioactive sources, both the Company and Leike produce non-destructive testing radioactive sources. Before our acquisition of Leike, the Company will coordinate with CIAE with respect to the production volume of non-destructive testing radioactive sources based on the market demand in each year. Particularly, the Company will firstly estimate the market demand and allocate the production plan to each of the Company and Leike. As the Company will have the right to decide the general production plan of radioactive sources between the Company and CIAE and/or its associates upon the Listing, through such arrangement the Company is able to ensure that there will not be any substantial competition between the Group and CIAE and/or its associates in respect of radioactive sources, and that the transactions under the Exclusive Sales Agreement for Radioactive Resources are in the interests of the Company and the Shareholders as whole. For details of such exclusive sales agreement, please refer to the paragraph headed "Connected Transactions — Non-exempt Continuing Connected Transactions — Exclusive Sales Agreement for Radioactive Sources".

Since CIAE will cease to conduct the above-mentioned businesses in the market after the Listing, there will be no substantial competition between CIAE and the Group in this regard.

#### **NPIC**

NPIC is a public institute directly controlled and managed by CNNC. NPIC is primarily engaged in nuclear power engineering design, integrated equipment supply of nuclear steam supply system, reactor operation and applied research, reactor engineering experimental research, nuclear fuel and materials research, isotope production and nuclear technology services and applications. As of December 31, 2017, the total assets of NPIC was approximately RMB15,746.11 million.

Prior to the Listing of the Company, NPIC was engaged in the businesses of isotope reactor irradiation services and sales of radioactive-source-based instruments, which were similar to those carried out by the Group. Based on the following reasons, the Directors of the Company consider that there is no substantial competition between the Group and NPIC in this regard:

- NPIC's radioactive sources and sales of radioactive-source-based instruments business were much smaller in scale as compared to that of the Group. For each of the three years ended December 31, 2015, 2016 and 2017, the revenue and gross profit NPIC derived from the businesses of isotope reactor irradiation services and sales of radioactive-source-based instruments accounted for not more than 0.34% and 0.19% of those of the Group.
- Radioactive sources and sales of radioactive-source-based instruments businesses were not and will not become NPIC's core business or business development focus in the future. For each of the three years ended December 31, 2015, 2016 and 2017, radioactive sources and sales of radioactive-source-based instruments businesses accounted for no more than 0.24% and 0.70% of NPIC's revenue and gross profit, respectively.

On August 5, 2016, the Company entered into a non-competition and exclusive sales agency agreement (the "NPIC's Non-competition Undertaking") with NPIC, which provided that:

### (i) Isotope reactor irradiation services

NPIC will no longer provide third parties with isotope reactor irradiation services which are the same as those provided to the Company; and

#### (ii) Radioactive-source-based instruments

NPIC will be an exclusive sales agent of the radioactive-source-based instruments imported by our Company to the extent that they compete with the radioactive-source-based instruments produced by NPIC. The Company will no longer sell radioactive-source-based instruments within the above scope in the domestic market. Pursuant to the NPIC's Non-competition Undertaking, the Company has entered into a product and service supply framework agreement with CNNC in respect of the supply of radioactive-source-based instruments to CNNC and its associates (including NPIC). For details of the product and service supply framework agreement, please refer to the paragraph headed "Connected Transactions — Non-exempt Continuing Connected Transactions — Products and Services Supply Framework Agreement".

NPIC's Non-competition Undertaking will be effective from the Listing Date until the earlier of: (i) the delisting of the H Shares of the Company; (ii) termination of the agreement as agreed by the parties due to material changes in conditions and circumstances for performance of the agreement; or (iii) any party being unable to perform the agreement due to bankruptcy, by court orders, force majeure, etc.

Based on the above, our Directors are of the view that NPIC and the Group have no substantial competition in this regard.

## **404 Company**

404 Company was established on May 24, 1986 in PRC. As at the Latest Practicable Date, China Nuclear Fuel Corporation (中國核燃料有限公司), a wholly-owned subsidiary of CNNC, held 100% equity interests in 404 Company. 404 Company is primarily engaged in nuclear research and production, uranium conversion, reprocessing of spent fuel, decommission of nuclear facilities and radioactive waste treatment and disposal. As of December 31, 2017, the total assets of 404 Company were approximately RMB17,197.13 million.

Prior to the Listing of the Company, 404 Company was engaged in the businesses of radioactive sources and recycling of radioactive sources, which are similar to those carried out by the Group. Based on the following reasons, the Directors of the Company consider that there is no substantial competition between the Group and 404 Company in this regard:

- 404 Company's radioactive sources and recycling of radioactive sources business were much smaller in scale as compared to that of the Group. For each of the three years ended December 31, 2015, 2016 and 2017, the revenue and gross profit 404 Company derived from the above excluded businesses accounted for no more than 0.04% and 0.01% of those of the Group.
- Radioactive sources and recycling of radioactive sources business were not and will not become 404 Company's core business or business development focus in future. 404 Company recorded a loss for the year ended December 31, 2015, and suspended its operation in the year of 2016, for the radioactive sources and recycling of radioactive sources business. For the year ended December 31, 2017, 404 Company's radioactive sources and recycling of radioactive sources business only accounted less than 0.01% of its revenue.

On August 18, 2016, the Company entered into a non-competition and exclusive sales cooperation agreement (the "404 Company's Non-competition Undertaking") with 404 Company, pursuant to which, the Company will be an exclusive sales agent of (i) radioactive source produced by 404 Company; and (ii) the radioactive sources produced through the recycling of waste radioactive sources by 404 Company, which are the same as those of the Company. 404 Company's Non-competition Undertaking will be effective from the Listing Date until the earlier of: (i) the delisting of the H shares of the Company; (ii) termination of the agreement as agreed by the parties due to material changes in conditions and circumstances for performance of the agreement; or (iii) any party being unable to perform the agreement due to bankruptcy by court orders, force majeure, etc.

Based on the above, there will be no substantial competition between 404 Company and the Group in this regard after the Listing.

## **CNEIC**

CNEIC was established in the PRC on January 15, 1982. CNEIC is primarily engaged in the import and export trade of uranium products, nuclear fuel cycling equipment and nuclear power technologies and equipment and other business. As of December 31, 2017, the total assets of CNEIC were approximately RMB52,755.73 million.

Prior to the Listing, CNEIC was engaged in the businesses of import agency services for radioactive isotopes and radioactive therapeutic apparatus, which were similar to those of the Group. Based on the following reasons, the Directors of the Company consider that there is no substantial competition between the Group and CNEIC in this regard:

- CNEIC's import agency services for radioactive isotopes and radioactive therapeutic apparatus business were much smaller in scale as compared to that of the Group. For each of the three years ended December 31, 2015, 2016 and 2017, the revenue and gross profit CNEIC derived from such businesses accounted for not more than 0.05% and 0.07% of those of the Group.
- Import agency services for radioactive isotopes and radioactive therapeutic apparatus business was not and will not become CNEIC's core business or business development focus in future. For each of the three years ended December 31, 2015, 2016 and 2017, such business carried out by CNEIC accounted for no more than 0.005% and 0.08% of its revenue and gross profit, respectively.

On August 18, 2016, the Company entered into a non-competition agreement (the "CNEIC's Non-competition Undertaking") with CNEIC, pursuant to which CNEIC and its subsidiaries will no longer engage or participate in the business that directly or indirectly compete with our Group's businesses of radioactive isotopes and products and radioactive therapeutic apparatus import agency. The CNEIC's Non-competition Undertaking will be effective from August 18, 2016 until the any of the following events occurs: (i) CNNC ceases to be the controlling shareholder of the Company; or (ii) the delisting of H shares of the Company (except for the temporary suspension of trading). As CNEIC will no longer engage in the above business, it therefore would not compete with the Group in this regard after the Listing.

### Yunke Pharm

Yunke Pharm was incorporated as a limited liability company on July 5, 2001. As at December 31, 2017, CNNC held 47.89% equity interests in Yunke Pharm through NPIC, and Yantai Dongcheng Pharmaceutical Group Co., Ltd (the "Dongcheng Pharmaceutical") held the remaining 52.11% equity interests in Yunke Pharm. Dongcheng Pharmaceutical is a joint stock limited company listed on the Shenzhen Stock Exchange (stock code: 002675) and is an Independent Third Party. According to the 2016 annual report of Dongcheng Pharmaceutical which was prepared in accordance with the PRC GAAP, as of December 31, 2017, the total assets, revenue, profit and net profit of Yunke Pharm were approximately RMB652.8 million, RMB320.3 million, RMB168.1 million and RMB141.0 million, respectively.

Yunke Pharm's main business includes the production and sale of in vivo radioactive medicines (small volume injections, freeze-dried powder injections and in vivo implants), in vitro radioactive diagnostic reagents. Yunke Pharm's main products include injections for rheumatoid arthritis and other autoimmune and orthopedic diseases and iodine 125 sealed sources (the "Yunke's Excluded Business"). HTA, a subsidiary of the Group, is also developing drugs for the treatment of autoimmune and orthopedic diseases such as rheumatoid arthritis, and producing and selling iodine 125 sealed sources. However, the Directors are of the view that the competition between Yunke Pharm and the Group is limited.

a) For each of the three years ended December 31, 2015, 2016 and 2017, HTA's business which is similar to Yunke's Excluded Business accounted for no more than 4.11% and 0.55% of the revenue and gross profit of the Group.

- Since Yunke Pharm is a subsidiary of Dongcheng Pharmaceutical, an A-share listed company, Yunke Pharm's operation and investment decisions are made by its directors and senior management team. The existing board of directors of Yunke Pharm comprises of seven directors, three of whom are appointed by NPIC. As of the Latest Practicable Date, there is no overlapping director between the Company and Yunke Pharm. NPIC has established an information Chinese wall system in respect of the information relating to the competing business between Yunke Pharm and us to ensure that the directors, supervisors and senior management appointed by NPIC in Yunke Pharm on the one hand, and in our Group on the other hand will neither exchange the information on such competing businesses or any potential competing business between Yunke Pharm and us in the future, nor to use the relevant information to make such commercial decisions detrimental to the business operation of the Group. During the period of the Company's H Shares are listed on the Stock Exchange, NPIC will ensure that the directors, supervisors and senior management appointed by it in Yunke Pharm on the one hand, and in our Group on the other hand, be independent from each other and do not overlap. Moreover, according to the Company Law of the PRC, a director of a company incorporated in the PRC shall act in the best interests of the company's shareholders in respect of the affairs of that company and shall not take any action solely for the purpose of guaranteeing the interests of the shareholders who nominated him.
- c) Directors of Yunke Pharm shall also comply with the relevant requirements of the stock exchanges, including the equal treatment of the relevant shareholders and the independent operation of a PRC listed group, and shall seek the independent shareholders' approval for certain matters, in particular the connected transactions in which the shareholders have a significant interest, including determining whether to inject any business into the Company and whether to compete with the Group. Therefore, it is not feasible to obtain any commitment from CNNC or NPIC to inject Yunke Pharm's business into our Group or any non-competition commitment from Yunke Pharm. In this regard, the non-competition undertaking of CNNC does not cover Yunke Pharm.

# **Production and Sale of Isotope Raw Materials**

Each of CIAE, NPIC and 404 Company is capable of producing isotope raw materials by using its respective nuclear reactors and other facilities. However, as of the Latest Practicable Date, none of CIAE, NPIC and 404 Company produces or plans to produce isotope raw materials. To avoid the potential competition between us and CIAE, NPIC and 404 Company, each of CIAE, NPIC and 404 Company has undertaken to us that if it starts to produce isotope raw materials, the Company will be the exclusive sales agent for such isotope raw materials. The Company will fully comply with the relevant requirements of the Listing Rules (including but not limited to Chapter 14A of the Listing Rules) when it enters into transactions with CIAE, NPIC and/or 404 Company.

Save as disclosed above, neither our controlling shareholder nor any of our Directors was, as of the Latest Practicable Date, interested in any business which competes or is likely to compete, directly or indirectly, with the Group's principal business and would otherwise require disclosure under Rule 8.10 of the Listing Rules.

### NON-COMPETITION UNDERTAKING

To avoid the potential competition between CNNC and the Group, CNNC issued a non-competition undertaking (the "Non-competition Undertaking") to our Company on June 16, 2018, pursuant to which CNNC shall not, and shall procure that its associates (excluding the Group and Yunke Pharm) not to, engage in any business which, directly or indirectly, competes with the business of the Company, including nuclear medicine products and application service, radioactive source products and application service, irradiation and irradiation facilities related services, independent clinical laboratory services, etc. (the "Restricted Business") within the period during which (i) the H Shares of our Company are listed on the Stock Exchange (including the circumstances under which trading of our H Shares is suspended in accordance with the Listing Rules), and (ii) CNNC and its associates (excluding the Group and Yunke Pharm) may, individually or collectively, exercise or control the exercise of not less than 30% of the voting rights or are deemed as the controlling shareholders of the Group.

The above Non-competition Undertaking does not apply in the following circumstances:

- (i) CNNC having interests in any member of our Group; or
- (ii) CNNC having interests in a company other than our Group, provided that:
  - (a) any business (or its related assets) carried out or engaged by such company accounts for less than 10% of the Group's consolidated income and consolidated assets as shown in the most recent audited accounts of the Group;
  - (b) CNNC and its associates (excluding the Group) have no right to appoint majority of the directors of such company. In addition, there must be at least one shareholder of such company holding more interest than the total interest held by CNNC and its associates, or the company is controlled by a third party; and
  - (c) CNNC and its associates (excluding the Group) have not controlled the board of directors of the company.
- (iii) To the extent that CNNC and/or its associates do not control Yunke Pharm, CNNC and/or its associates directly or indirectly holding the equity interests of Yunke Pharm.

### **Option for New Business Opportunities**

CNNC has undertaken in the Non-competition Undertaking that if CNNC and its associates (excluding the Group) become aware of, have received notice about, are recommended or provided with new business opportunities which will directly or indirectly compete with the Restricted Business, including but not limited to the opportunities which are the same as or similar to the Restricted Business (the "New Business Opportunities"), CNNC shall refer or recommend, and shall procure its associates (excluding the Group) to refer or recommend the New Business Opportunities to our Group subject to relevant laws, requirements or contractual arrangements with third parties in accordance with the following:

(i) CNNC shall provide our Group with a written notice which includes all reasonable and necessary information known to CNNC and/or its associates (excluding the Group) (including but not limited to the nature of the New Business Opportunities and necessary information relating to the cost of the relevant investment or acquisition, if any) for our Group to consider (a) whether the New Business Opportunities constitute competition or

potential competition to the Restricted Business; and (b) whether engaging in such New Business Opportunities would be in the best interests of our Group (the "Offer Notice"); and

(ii) the Group shall respond to CNNC and/or its associates (excluding the Group) within 30 days upon receipt of the Offer Notice. If our Group fails to reply to CNNC and/or its associates (excluding the Group) within the above period, it shall be deemed to have abandoned the New Business Opportunities. If our Group determines to take up the New Business Opportunities, CNNC and/or its associates (excluding the Group) would be obligated to offer such New Business Opportunities to our Group.

# **Pre-emptive Right**

CNNC has undertaken that if CNNC and/or its associates (excluding the Group) intend to transfer, sell, lease or grant license to a third party any businesses engaged in by CNNC and/or its associates which competes or may compete with the Restricted Business or any other businesses which would cause direct or indirect competition with the Restricted Business, it shall offer our Group such opportunity with a pre-emptive right on equal terms subject to the relevant laws, regulations and contractual arrangements with third parties in accordance with the followings:

- (i) CNNC and/or its associates (excluding the Group) shall provide the Company with written notice no later than the time of any such disposal (the "**Disposal Notice**"). For the avoidance of doubt, CNNC and/or its associates (excluding the Group) are entitled to provide information and/or a Disposal Notice relating to such disposal to any third parties at the same time as or after providing the Disposal Notice to the Company;
- (ii) the Company shall reply to CNNC and/or its associates (excluding the Group) in writing by whichever is the later of the 30th day after receipt of the Disposal Notice or the expiration of the period offered to third parties for them to reply, before exercising the pre-emptive right;
- (iii) if the Company intends to exercise such pre-emptive right, the terms shall be determined with reference to fair market price; and
- (iv) CNNC and/or its associates (excluding the Group) shall not dispose of such businesses and interests to any third parties unless (a) the Company declines to purchase such businesses and interests in writing; (b) the notice of exercising such pre-emptive right has not been received by CNNC and/or its associates (excluding the Group) from the Company by whichever is the later of the 30th day after receipt of the Disposal Notice and the expiration of the period offered to third parties for them to reply; or (c) the Company fails to offer CNNC and/or its associates (excluding the Group) the same or more favorable terms of acquisition than those offered by any third parties to CNNC and/or its associates. For the avoidance of doubts, under such circumstances if CNNC and/or its associates have been in legal proceedings with third parties for disposal of such businesses and interests, the Company shall not exercise the Option for Purchase.

For the avoidance of doubts, the terms of disposal offered by CNNC and/or its associates (excluding the Group) to any third parties shall not be more favorable than those to be offered to the Company.

## **Option for Purchase**

To the extent that no relevant laws and regulations are breached and agreements with third parties are complied with, the Company is entitled to acquire any businesses operated by CNNC and/or its associates (excluding the Group) which compete or may compete with the Restricted Business or have the option to acquire any businesses or any interests engaged by CNNC and/or its associates (excluding the Group) through the New Business Opportunities (the "Option for Purchase"). The Company is entitled to exercise the Option for Purchase at any time, and CNNC and/or its associates (excluding the Group) shall offer the Option for Purchase to the Company on the condition that the commercial terms of a proposed acquisition shall be arrived at solely by a committee consisting of our independent non-executive Directors after consulting the views of independent experts. Furthermore, such commercial terms shall in line with the normal commercial practice of the Company, and is fair, reasonable and in the interests of the Company as a whole through the negotiation with CNNC and its associates (excluding the Group).

However, if a third party has pre-emptive rights in accordance with applicable laws and regulations and/or a prior legally binding document (including but not limited to articles of association and/or shareholders' agreements), the Company's Option for Purchase shall be subject to such third-party rights. In such case, CNNC and/or its associates (excluding the Group) will use their best efforts to persuade the third party to waive its pre-emptive rights.

### **CNNC's Further Undertakings**

CNNC has further undertaken that, subject to relevant laws, regulations or contractual arrangements with third parties:

- (i) at the request of the Company, it shall provide, and shall procure its associates (excluding the Group) to provide, any necessary information for the implementation of the Noncompetition Undertaking;
- (ii) it shall allow the authorized representatives or auditors of the Company to have reasonable access to the financial and corporate information necessary for its transactions with third parties, which would assist the Company to evaluate whether CNNC and/or its associates have complied with the Non-competition Undertaking; and
- (iii) within 15 days of receipt of the written request from the Company, which is made in accordance with relevant regulatory requirements, it shall provide necessary confirmation in writing to the Company as to the performance of the Non-competition Undertaking by CNNC and its associates (excluding the Group) as well as the consent to allow such confirmation to be included in the Company's annual reports.

### Corporate Measures in Relation to the Implementation of the Non-competition Undertaking

Our Company will also adopt the following procedures to ensure that the undertakings under the Non-competition Undertaking are observed:

(i) Review by independent non-executive Directors — our independent non-executive Directors will be responsible for reviewing New Business Opportunities, pre-emptive right and Option for Purchase granted by CNNC, and for deciding whether or not to take up business opportunities as referred to in the Offer Notice, Disposal Notice and/or the Option for Purchase. In deciding whether to take up such business opportunities, our

independent non-executive Directors will consider various factors, including the due diligence to be conducted towards the target businesses, the purchase prices, the benefits that it will bring to our Group, as well as whether we have adequate management and resources to manage and operate the business operations of such businesses.

- (ii) Increased transparency CNNC has undertaken that it will provide all information necessary for the exercise of the options for New Business Opportunities, pre-emptive right and Option for Purchase. We will provide our independent non-executive Directors with the Offer Notice or Disposal Notice (as the case may be) on the New Business Opportunity or pre-emptive rights referred to us by CNNC within seven days of receipt, and our independent non-executive Directors may propose the exercise of the Option for Purchase at any time.
- (iii) Public disclosure of decisions our Company will disclose decisions on matters reviewed by our independent non-executive Directors related to the exercise or non-exercise of options for New Business Opportunities, the pre-emptive rights and the Option for Purchase either in our annual reports, or by way of announcements to the public. Our independent non-executive Directors will report in our annual reports (a) their findings on the compliance by CNNC with the Non-competition Undertaking and (b) any decision made pursuant to the Options for New Business Opportunities, the pre-emptive right and the Option for Purchase granted to the Company, and the basis of such decision.
- (iv) Consultancy Committee In order to assist the Company's Independent Non-executive Directors to better supervise the implementation of the Non-competition Undertaking, the Company also plans to establish a consultancy committee comprised of external experts to advise and train the Independent Non-executive Directors regarding technical matters. For details, please refer to the paragraph headed "Directors, Supervisors and Senior Management Additional Corporate Measures to assist Independent Non-executive Directors" of this prospectus.

### **Termination of the Non-competition Undertaking**

The Non-competition Undertaking will become effective upon the Listing. It will be terminated upon the earlier of the followings:

- (i) CNNC and its associates (excluding the Group) individually or collectively exercise or control the exercise of less than 30% of the voting rights in the Company's general meetings, or are no longer deemed as the controlling shareholders of the Group according to relevant listing rules, security transaction laws or other related laws; or
- (ii) our H Shares ceasing to be listed on the Stock Exchange (except in the circumstances under which our H Shares are temporarily suspended from the Listing in accordance with the Listing Rules).

In light of the above, our Directors are of the view that our Company has taken all appropriate and practicable measures to ensure the compliance of CNNC with its obligations under the Non-competition Undertaking.

#### INDEPENDENCE FROM CNNC

Taking into consideration the following factors, our Directors believe that we can conduct our business independently from CNNC and its close associates after the Global Offering.

### **Management Independence**

Our Board of Directors consists of nine Directors (including three executive Directors, three non-executive Directors and three independent non-executive Directors). Among the nine Directors, only three non-executive Directors have taken management positions in CNNC and its close associates.

Name	Position in the Company	Position in CNNC and its close associates (excluding the Group) as of the Latest Practicable Date
Meng Yanbin	Executive Director, Chairman of the Board	No
Wu Jian	Executive Director	No
Du Jin	Executive Director	No
Zhou Liulai	Non-executive Director	Secretary of the Party Committee and Deputy Dean of CIAE
Luo Qi	Non-executive Director	Dean of the NPIC
Wang Guoguang	Non-executive Director	Director of the general office of CNNC
Guo Qingliang	Independent non-executive Director	No
Meng Yan	Independent non-executive Director	No
Hui Wan Fai	Independent non-executive Director	No

Save as disclosed above, none of our Directors or senior management held any position in CNNC or its close associates. The Company and CNNC and its close associates are managed by separate management teams. Hence, we have the sufficient management team members who do not hold any position in CNNC or its close associates, and are independent and have the adequate relevant experience to ensure the normal operation of the day-to-day business and management of the Company.

Our Directors believe that the Company can manage its business independently from CNNC and its close associates after the Listing for the following reasons:

- Our management reports to the executive Directors and the executive Directors report to the Board in according to our internal reporting process. The Board generally supervises and monitors the performance of the management team through periodic reports submitted by the executive Directors, regular meetings and interim meetings of the Board, and reviews and approves the major matters beyond the management's authority;
- None of our Directors or senior management holds any equity interest in CNNC or its close associates;
- Our Directors are well aware of their fiduciary duties which, among other things, require them to act in the best interests of the Company and the Shareholders as a whole; and
- In the event of any conflict of interest or potential conflict of interest in relation to the transactions between the Company and CNNC or its close associates, the interested Directors shall abstain from voting on the resolutions to approve the aforesaid matters, and shall not be counted into the quorum or participate in the discussion (except for being specially invited to be present by non-interested Directors), therefore the Director holding other positions in CNNC and/or its close associates will not affect the independence of his/her directorship in our Company or the independence of the Board.

Based on the above, our Directors consider that our management can operate our business independently from CNNC and/or its close associates.

## **Operational Independence**

The Company has sufficient funds, properties, equipment, technologies and human resource to independently operate its own businesses and has the qualifications necessary for engaging in the principal businesses of the Group. The Company is independent of CNNC and its close associates and has its own tangible assets and intangible assets as well as registered trademarks (other than certain trademarks licensed by CNNC), permits, goodwill, brands, know-how and other intangible assets, which enables the Company to operate its businesses independently from CNNC and its close associates. We have established a nationwide product sales network with experienced management team and excellent professional technicians, all of which are independent of CNNC. Currently, we make operational decisions independently of CNNC and its close associates. We have our own organizational structure with self-governing departments, each with specific areas of responsibility.

We also maintain a set of comprehensive internal control procedures to facilitate the effective operation of our business. We carried out business with our customers and suppliers independently. We have independent human resources management. We have obtained relevant licenses, approvals and permits from the relevant regulatory authorities that are important to our business in China.

Due to the features and characteristics of our businesses, we entered into certain connected transactions with CNNC and/or its associates in respect of some of our business segments. For details of these connected transactions, please refer to the section headed "Connected Transactions" of this prospectus.

### 1. Trademark License

The Company is licensed by CNNC to use certain trademarks owned by CNNC on royalty-free basis, which is a common practice among state-owned enterprises. We also owned certain registered trademarks for our key products which we consider to be material to our business. For details, please see "Statutory and General Information" of this prospectus.

#### 2. Custodian Service

The Company provides custodian service to Dalian Institute of Applied Technology (the "Custodian Target Company") on behalf of CNNC to avoid potential competition between the Group and the Custodian Target Company in respect of irradiation services. The Company provides such custodian service and receives annual custodian service fee based on the actual administrative cost incurred by the Company from the Custodian Target Company and so does not rely on CNNC in this regard.

### 3. Property & Equipment Leasing and Related Services

(i) office buildings, land and office facilities

We leased from CNNC and/or its associate a small amount of office buildings, land and office facilities for administrative purpose. We believe there are sufficient substitute suppliers for such office buildings, land and office facilities who are Independent Third Parties on the market.

## (ii) production plants, facilities and equipment

We leased (i) certain production plants for our business operations, including the production of technetium-99m labeled injections, fluorine-18-FDG injections, iodine-125 sealed source, etc; (ii) production facilities owned by CNNC and/or its associates to treat and dispose of the radioactive wastes generated during our production of radioactive products; and (iii) certain production equipment (mainly high-power accelerator) to produce fluorine-18-FDG injections from CNNC and/or its associates.

Due to the industry features, CNNC (including its associates, as the case may be) is the only entity approved by the relevant PRC authorities to establish and construct the relevant production plants, facilities and equipment which can satisfy our Group's demand for the said production, processing and waste treatment and disposal. In view of CNNC's dominant market position, it is unlikely for our Company to break off reliance on CNNC in this respect at the current stage. However, the Group has commenced building production, research and development bases for imaging diagnostic and therapeutic radiopharmaceuticals in Chengdu, Sichuan province, which are expected to be completed in 2019, and plans to commence building of Xianghe, Hebei province in late 2018. Once put into use, the Group will relocate the production of most of the radiopharmaceuticals to Chengdu and Xianghe and use the production plants, facilities and equipment in Chengdu and Xianghe for the above-mentioned production, processing and waste treatment and disposal. As such, the level of reliance on the plants, facilities and equipment of CNNC and/or its associates will decrease in the future.

## (iii) Services relating to common areas and facilities

CNNC and/or its associates also provided the Group's employees with certain services relating to common areas and facilities. The Company believes that such services do not and will not affect the Group's operational independence.

### 4. Products and Services Supply

The Group sells radioactive source products, radioactive instruments and pharmaceuticals to CNNC and/or its associates as well as Independent Third Parties in its ordinary course of business. The revenue generated from selling radioactive source products, radioactive instruments and pharmaceuticals to CNNC and/or its associates accounted for approximately 3.3%, 2.3% and 2.0% of the Group's total revenue for each of the three years ended December 31, 2015, 2016 and 2017, respectively. Therefore, the Company believes these connected transactions will not affect the Group's operational independence in material aspects.

#### 5. Products and Services Purchase

We purchased the follow products and services from CNNC and its associates:

(i) raw and auxiliary materials, production equipment and other products; (ii) transportation containers (including the related design and manufacturing services); (iii) technical testing and irradiation services;

The purchase amount of the above products and services from CNNC and/or its associates accounted for approximately 5.90%, 6.27% and 7.52% of our Group's total purchase amount for each of the three years ended December 31, 2015, 2016 and 2017, respectively. We also purchased such raw

and auxiliary materials, transportation containers and technical testing and irradiation services from other suppliers who are Independent Third Parties on the market.

(iv) encapsulation and processing services of cobalt-60 radioactive sources

Due to the radioactive feature of cobalt-60 radioactive sources, CNNC (including its associates, as the case may be) is the only entity in China licensed by the PRC environmental protection authorities to carry out encapsulation and processing services of cobalt-60 radioactive sources. However, our revenue generated from cobalt-60 source only accounted for approximately 2.90% of our total revenue for each of the three years ended December 31, 2015, 2016 and 2017 on average. In light of the above, it is unlikely for our Group to break off the reliance on CNNC in terms of encapsulation and processing services of cobalt-60 radioactive sources and the risk of reliance is not specific to the Company. However, given the small amount of revenues generated from this business area during the Track Record Period, the Company believes that the reliance on CNNC in terms of encapsulation and processing services of cobalt-60 radioactive sources is not so excessive as to affect the Company's capability of maintaining its revenue in the future.

(v) scientific research services related to high-end irradiation research and development

The Company entered into a non-competition undertaking (the "CIRP Non-competition Undertaking") with CIRP to avoid competition between the Group and CNNC and/or its associates in respect of irradiation services. Pursuant to the CIRP Non-competition Undertaking, CIRP shall provide scientific research services related to high-end irradiation research and development to the Company. For details, please refer to "Relationship with the Controlling Shareholder – Delineation of Business and Competition – CIRP".

### 6. Exclusive Sales of Radioactive Sources

Both the Group and CIAE own the capacity to produce radioactive sources. In order to avoid competition between the Group and CIAE, the Company and CIAE entered into a non-competition undertaking (the "CIAE Non-competition Undertaking") pursuant to which the Company shall be the exclusive sales agent for the radioactive sources produced by CIAE. For details, please refer to "Relationship with the Controlling Shareholder – Delineation of Business and Competition – CIAE". As mentioned above, we also sell radioactive source products produced by ourselves to CNNC and/or its associates as well as Independent Third Parties in our ordinary course of business. As disclosed in the paragraph headed "Connected Transactions – Non-exempt Continuing Connected Transactions – 5. Cobalt-60 Radioactive Sources Supply and Related Services Framework Agreement", we expect that the amount of this transaction will not be significant in the future.

### 7. Transactions with connected subsidiaries

The Company also entered into several types of connected transactions with its connected subsidiaries, CNNC Tongxing and Headway. Given that the Company controls the majority shareholding interests in these two subsidiaries, the Board believes that these connected transactions will not affect the Group's operational independence in material aspects.

Our Directors believe that taking into account our stable relationship with CNNC and its close associates and their experience, market position, familiarity with our business demand and service quality, such transactions are entered into through arm's length negotiation on normal commercial terms in the ordinary business course of the Company and are fair, reasonable and in the interest of the Shareholders as a whole.

The Company has adopted a series of corporate governance measures, such as the rules of procedure for general meetings, the rules of procedures for board meetings and the rules for connected transactions.

Based on the above, our Directors believe that from the prospective of business operation, the Company is independent of CNNC and its close associates and our continuing business relationship with CNNC and its close associates is in our best interest and will be implemented on ordinary commercial terms under the principle of fairness.

# **Financial Independence**

We have sufficient capital and bank credit to operate our business independently, and have sufficient internal resources to support our day-to-day operations. We have access to independent third party financial institutions and are not required to rely on any guarantee or mortgage from CNNC or its close associates to obtain the relevant financing.

We have an independent finance department comprising of our own staff, and have established a sound independent audit system, a standard financial and accounting system and a complete financial management system. We can make financial decisions independently, and CNNC and/or its close associates will not interfere with the utilization of our funds. We have opened basic accounts with banks and we do not share any bank account with CNNC or its close associates. We carry out tax registration procedures and pay tax independently in accordance with applicable Chinese tax laws and regulations. We have not paid any tax in conjunction with CNNC or its close associates.

In addition, we have been receiving financial services from CNNC and its associates, including (i) deposits and related services; (ii) entrusted loans, settlement and foreign exchange settlement and sales, etc.; and (iii) financing leasing services in connection with the assets involved in the operation of the Group (For details, please see the paragraph headed "Connected Transactions — Financial Services Framework Agreement"), which will continue to be provided by CNNC and/or its associates to the Group upon the Listing. The Group's financial services provided by CNNC and its associates are favorable to the Group and the financial services arrangements within Chinese state-owned enterprises group are common in the PRC. Our Directors consider the financial services arrangements are reasonable and are in the interests of the Company and the Shareholders as a whole. The Group is able to choose deposits service and other financial services provided by other commercial banks and financial services institutions, even if the arrangements with CNNC and its associates are terminated.

As at the Latest Practicable Date, save as disclosed in the paragraph headed "Connected Transaction — Exempt Continuing Connected Transaction — 3. Guarantee Agreement for Loan Facilities granted to Headway" of this prospectus, the Group did not have any outstanding loans from CNNC or its close associates, and CNNC or its close associates did not provide any guarantee to us. We have fully settled all non-trade payments payable to CNNC and its associates before the Listing. As at the Latest Practicable Date, the Group has obtained RMB200 million of bank loan from China Development Bank, an Independent Third Party from us.

Based on the above, our Directors believe that the Company can be financially independent from CNNC and its close associates at the time of the Listing.

#### LATEST DEVELOPMENT OF CNNC

As of the Latest Practicable Date, CNNC is planning to merge with China Nuclear Engineering & Construction Group Corporation Limited (中國核工業建設集團有限公司) (the "CNEC") by absorption, upon the completion of which, CNEC will become a wholly-owned subsidiary of CNNC and a connected person of the Company. We expect that such merge by absorption is unlikely to complete before, or immediately after, the completion of the Global Offering.

CNEC is mainly engaged in engineering and construction of nuclear power plants, industrial and civil engineering, industrial and civil engineering and clean-energy businesses. To the best knowledge and information of the Directors, as of the Latest Practicable Date CNEC is an Independent Third Party and not involved in any business which competes or is likely to compete, either directly or indirectly, with our Group's principal business. The Company will fully comply with the relevant requirements of the Listing Rules (including but not limited to Chapter 14A of the Listing Rules) when CNEC becomes a connected person of the Company.

During the Track Record Period and up to now, to the best knowledge of the Directors, the Group sold non-destructive testing radioactive sources to CNEC and procured construction and engineering services from CNEC. The amounts of the transactions involved in the sales of non-destructive testing radioactive source were RMB 725,791.30, RMB 336,749.65 and RMB 1,469,692.46 for the three years of 2015, 2016 and 2017, respectively. The amounts of the transactions involved in the purchase of engineering services from CNEC were RMB 22,800, RMB 2,289,929.19 and RMB 120,900.86 for the three years of 2015, 2016 and 2017, respectively.

You should read the following discussion and analysis of our financial condition and results of operations in conjunction with our consolidated financial information included in "Appendix I—Accountants' Report" to this prospectus, together with the accompanying notes. Our consolidated financial information has been prepared in accordance with IFRSs.

The following discussion and analysis contain forward-looking statements that involve risks and uncertainties. These statements are based on assumptions and analysis that we made in light of our experience and perception of historical trends, current conditions and expected future developments, as well as other factors we believe are appropriate under the circumstances. However, our actual results may differ significantly from those projected in the forward-looking statements. Factors that might cause future results to differ significantly from those projected in the forward-looking statements include, but are not limited to, those discussed in "Risk Factors" and "Forward-Looking Statements" in this prospectus.

### **OVERVIEW**

We are the leading enterprise in the field of isotopes and irradiation technology applications in China. We are primarily engaged in the research, development, manufacturing and sale of diagnostic and therapeutic radiopharmaceuticals and radioactive source products for medical and industrial applications. We also provide irradiation service for sterilization purpose, EPC service for the design, manufacturing and installation of gamma ray irradiation facilities, as well as independent clinical laboratory services. According to Frost & Sullivan, in 2017, we were the largest manufacturer of imaging diagnostic and therapeutic radiopharmaceuticals, UBT kits and analyzers and radioactive source products, respectively, in terms of revenue in China. In 2017, we were two out of three qualified EPC service providers approved by the MEP to engage in the design, manufacturing and installation of irradiation facilities in China, according to Frost & Sullivan.

We have experienced stable business growth in recent years. In particular, our revenue increased from RMB2,152.1 million in 2015 to RMB2,363.1 million in 2016, and further to RMB2,672.0 million in 2017. In 2015, 2016 and 2017, our net profit was RMB410.4 million, RMB434.5 million and RMB475.6 million, respectively.

### **BASIS OF PRESENTATION**

Our consolidated financial information has been prepared in accordance with IFRSs and applicable disclosure requirements of the Hong Kong Listing Rules. We prepared our consolidated financial information on the historical cost basis except for certain financial instruments that are measured at fair value at the end of each reporting period. Historical cost is generally based on the fair value of the consideration given in exchange for goods and services.

Our consolidated financial information incorporates the financial information of our Company and entities controlled by us. When necessary, we made adjustments to the financial statements of our subsidiaries to bring their accounting policies in line with our accounting policies. All intra-group assets and liabilities, equity, income, expenses and cash flows relating to intra-group transactions are eliminated in full on consolidation.

#### FACTORS AFFECTING OUR RESULTS OF OPERATIONS AND FINANCIAL CONDITION

We believe that the most significant factors that have affected, or are expected to affect, our results of operations and financial condition include, among others:

### The Development of the PRC Isotope and Irradiation Industry

Our business expansion and revenue growth have been, and will continue to be, affected by the development of the isotope and irradiation industry in China.

The size of the PRC isotopes medical application market reached RMB4,382.0 million in 2017 and is projected to reach RMB10,634.1 million in 2022, representing a CAGR of 19.4% between 2017 and 2022, according to Frost & Sullivan. The market size of the PRC industrial radioactive sources reached RMB360.5 million in 2017 and is projected to reach RMB428.7 million in 2022, representing a CAGR of 3.5% between 2017 and 2022, according to Frost & Sullivan. The market size of the PRC design and installation of gamma ray irradiators is expected to continually grow from RMB29.9 million in 2017 to RMB32.0 million in 2022 with a CAGR of 1.3%, according to Frost & Sullivan. The market size of the irradiation service reached RMB1,093.5 million in 2017 and is projected to reach RMB1,418.5 million in 2022, representing a CAGR of 5.3% between 2017 and 2022, according to Frost & Sullivan. See "Industry Overview" for further details.

The robust growth of the PRC isotope and irradiation market is driven by a multitude of favorable fundamental factors. In 2016, total healthcare expenditures in China reached RMB4,634.5 billion and are expected to grow at a CAGR of 9.7% from 2016 to RMB7,371.0 billion in 2021, according to Frost & Sullivan. Along with the rapid growth of healthcare expenditures, the development of the isotope and irradiation industry in China is also driven by a number of important trends, including increasing disposable income, rising health awareness, aging population, increasing life expectancy and epidemiological change, increasing prevalence of chronic diseases, favorable government policy support, technological advances and growing application potential in extensive fields. Our success depends on our ability to accurately identify and anticipate these trends as well as to adapt our business to such changes in the market environment.

As a leading enterprise covering extensive application fields along the value chain in the PRC isotope and irradiation industry, we believe that we are well-positioned to benefit from the general market growth and have the competitive strengths, resources and expertise to take advantage of the evolving market dynamics. However, the continued growth of the PRC isotope and irradiation industry and our ability to benefit from market growth are subject to a number of risks and uncertainties. See "Risk Factors — Risks Relating to Our Business and Industry" for further details.

# Regulations of Our Industry and Our Ability to Adapt to Evolving Regulatory Environment

The isotope and irradiation industry in China is subject to rigorous government regulation and supervision. The current regulatory framework addresses all key aspects of production and operation, including approval, licencing and certification requirements and procedures, periodic assessment and renewal processes, registration of new drugs, quality control, qualifications and environmental protection. Policies and regulations promulgated by the PRC government and other competent authorities may therefore significantly affect our operations, products and services. As such, our ability to adapt to an evolving regulatory environment will affect our results of operations. See "Regulatory Environment" for a summary of the laws and regulations relating to our business in China.

## Our Ability to Enhance Our Sales and Marketing Capabilities

Our results of operations have been and will continue to be affected by our ability to further strengthen and expand our sales and marketing capabilities. As part of our overall growth strategy, we plan to continually enhance the coverage of our sales network and promote synergies among our production and distribution roles, which we believe could reinforce our leading market position domestically. For instance, given the relatively short half-life of the radioisotopes in technetium-99m labeled injections and fluorine-18-FDG injections, having a manufacturing facility located in the proximity of hospitals and other medical institution customers of these products could offer a key competitive advantage. In order to timely meet the increasing demand of the population centers in China, we intend to build a total of 26 manufacturing and distribution facilities to produce and sell technetium-99m labeled injections and fluorine-18-FDG injections by 2023 in China. We also plan to leverage our two planned new modern manufacturing and research and development bases of imaging diagnostic and therapeutic radiopharmaceuticals, namely Xianghe Base and Chengdu Base, and our two new production bases located in Shenzhen and Tongcheng, to enhance our ability to meet market demand, while strengthening our marketing efforts and exploring marketing channels to increase our market penetration.

Furthermore, we sell our products through a network of promoters and distributors, and our ability to increase revenue is directly affected by the scale of our sales network and the effectiveness of our sales and marketing activities. We devote our marketing resources to continuously increasing the breadth and depth of our sales network, which could directly impact our market coverage of hospitals and medical institutions to further increase our sales volume. As of December 31, 2017, through our sales network of pharmaceuticals and radioactive source products located strategically across 31 provinces, municipalities and autonomous regions, we sold our products to over 1,400 Class III hospitals, 4,500 Class II hospitals and 4,300 Class I hospitals in China. We actively participate in trade shows, symposia, conventions, seminars, and other notable events in China to promote and maintain our brand at the forefront of the industry and enhance recognition among leading hospitals and medical professionals. We intend to continue to strengthen our relationship with hospitals and medical institutions to further increase our direct sales and improve our profitability. The vast scale and geographic coverage of our sales network allow us to effectively provide high-quality supply chain services to our customers, which in turn enables us to enhance customer relationships and bargaining power. We have also launched diverse marketing and promotional activities for sales of our pharmaceuticals with a view to enhancing our brand awareness and recognition of our products. However, our ability to utilize our sales network is subject to a number of risks and uncertainties. See "Risk Factors — Risks Relating to Our Business and Industry — If we fail to maintain an effective distribution network for our certain products in pharmaceuticals segment or manage the activities of our distributors, our business could be materially and adversely affected."

# Product Portfolio and Our Ability to Optimize Product and Service Mix

Our results of operations are affected by the product and service mix in our businesses. As of the Latest Practicable Date, we provided and marketed a diversified product portfolio comprising 54 radiopharmaceuticals for imaging diagnostic and therapeutic purposes, four registered UBT kits, ten registered UBT analyzers, 147 in vitro immunoassay diagnostic reagents and kits products, five medical radioactive source products and more than 70 industrial radioactive source products. Of these products, five radiopharmaceuticals for imaging diagnostic and therapeutic purposes and seven radioactive source products could only be produced by us in China as of the Latest Practicable Date.

The gross margin and market demand for each product we manufacture vary significantly as a result of our diversified product portfolio. We continuously evaluate and optimize our product portfolio to allocate resources towards products with promising market outlook and high profitability.

Our future results of operations will also depend on our ability to research, develop and commercialize new products, which typically command higher selling volumes and profit margins. Capitalizing on the strong demand for our radiopharmaceutical products in China, we plan to build two new modern radiopharmaceutical manufacturing and research and development bases in Xianghe, Hebei province, and Chengdu, Sichuan province, through HTA and CNGT to expand production capacity and extend distribution reach. As of December 31, 2017, we had one imaging diagnostic and therapeutic radiopharmaceutical under research pending approval for production, namely sodium iodine-131 capsule for therapeutic purpose, one imaging diagnostic and therapeutic radiopharmaceutical at stage of clinical trials, namely iodine-131-MIBG injection, three imaging diagnostic and therapeutic radiopharmaceuticals under research pending approval for clinical trials, namely sodium fluoride-18 injection, palladium-103 sealed source, and technetium-99 methylene diphosphonate injection, and four imaging diagnostic and therapeutic radiopharmaceuticals under various stages of research and development. In addition, we also plan to engage in the research and development of various imaging diagnostic and therapeutic radiopharmaceuticals to be funded by the net proceeds of the Global Offering. Our research and development expenses, excluding amortization costs, were approximately RMB44.6 million, RMB58.7 million and RMB73.5 million in 2015, 2016 and 2017, respectively. We believe the continual development of new products will stimulate the sustainable and organic growth of our business.

### **Our Ability to Effectively Control Costs and Expenses**

Our profitability is affected by our ability to effectively control cost of sales and expenses.

Our cost of sales primarily includes raw material costs, trading costs and staff costs. The cost of purchasing raw materials is the largest component of our cost of sales. The cost of raw materials amounted to RMB294.7 million, RMB335.1 million and RMB371.8 million in 2015, 2016 and 2017, respectively, representing 44.3%, 48.0% and 47.2% of total cost of sales for the respective periods. Generally, our procurement cost of raw materials was relatively stable throughout the Track Record Period. However, the supply of certain raw materials, such as cobalt-60 for medical applications, fluctuated over the past few years and may decline in the future, which may adversely affect our procurement cost of such raw materials. To control our procurement cost, we have adopted various measures to mitigate the fluctuations of raw material cost, including centralized procurement to increase our bargaining power with suppliers, more efficient inventory management to adjust the frequency and quantity of procurement based on market conditions, the establishment of long-term strategic cooperative relationships with key suppliers, as well as engaging in the research and development of commercial production of key raw materials domestically by leveraging our in-depth expertise and manufacturing capability in order to reduce our reliance on overseas suppliers. We have also adopted internal policies and procedures for raw material procurement, and have made coordinated efforts to purchase raw materials for our downstream subsidiaries. In addition, we have developed several patented production and preparation methods designed to maximize production efficiency and safety. We have also devoted significant efforts to continuously improve our production efficiency, which will enable us to increase our production volumes to meet growing market demand without significantly increasing our raw materials, staff and other costs. As our production efficiency

and economies of scale improve, our cost of sales as a percentage of revenue decreased from 30.9% in 2015 to 29.6% in 2016, and further to 29.5% in 2017.

In addition to our ability to control cost of sales, our ability to effectively control operating expenses, particularly our selling and distribution expenses, will have a significant impact on our profitability. Our operating expenses include selling and distribution expenses and administrative expenses. Selling and distribution expenses are a key component of our operating expenses, accounting for 37.7%, 39.5% and 41.0% of our revenue in 2015, 2016 and 2017, respectively. In the future, we intend to strengthen our marketing efforts, enhance our sales productivity and at the same time control our distribution expenses. On the other hand, as we continue to expand our business through organic growth, strategic acquisitions and continued efforts on marketing and promotion, our employee headcount is likely to continue to increase. We may increase the remuneration for our staff in order to recruit and retain talents for our business operations and research and development. We believe that our investments in human resources will allow us to increase our revenue and enhance our overall productivity, which in turn will have a positive effect on our results of operations.

#### CRITICAL ACCOUNTING POLICIES

We have identified certain accounting policies that are significant to the preparation of our consolidated financial information. Note 2 to "Appendix I — Accountants' Report" in this prospectus includes a summary of significant accounting policies used in the preparation of our consolidated financial information. The determination of these accounting policies is fundamental to our financial condition and results of operations, and requires our management to make subjective and complex judgments about matters that are inherently uncertain based on information and data that may change in future periods. As a result, determinations regarding these items necessarily involve the use of assumptions and subjective judgments as to future events and are subject to change, and the use of different assumptions or data could produce materially different results. In addition, actual results could differ from estimates and may have a material adverse effect on our business, financial condition, results of operations and cash flows.

Certain accounting estimates are particularly sensitive because of their significance to the financial statements and because of the possibility that future events affecting the estimates may differ significantly from our management's current judgments. We believe the following represents our critical accounting judgments and estimates:

# **Obligation for Reclamation**

Pursuant to the relevant rules and requirements in China, we are obligated to reclaim and dispose returned radioactive sources, as well as to manage radioactive waste and dispose retired radioactive production and storage facilities, in relation to our radioactive source products and irradiation businesses. The estimation of the liabilities for reclamation and disposal involves the estimates of the amount and timing for the future expenditure as well as the discount rate used to reflect current market assessments of the time value and risks associated with such liabilities. The estimation is principally subject to the following factors, including future production plan, useful life of relevant assets and level of their respective radioactivity to determine the scope, amount and timing of our tentative reclamation obligation on the disposal of returned radioactive sources and radioactive production and storage facilities, which might turn out to be different from the actual expenditure to be incurred. Such amount is determined based upon our best estimates of the associated costs which may

be subject to change in the near term when the reclamation obligation becomes apparent in the future. We reassess the estimated costs and adjust the accrued reclamation obligations, when necessary, at the end of each reporting period. Revisions to the estimation of associated costs, including the changes in estimated costs or changes in timing of the performance of relevant reclamation activities, will be recognized at the appropriate discount rate.

We also consider the following as our critical accounting judgments and estimates, the details of which are set out in note 3 to our consolidated financial information included in "Appendix I — Accountants' Report" to this prospectus:

- impairment loss for bad and doubtful debts;
- depreciation;
- recognition of deferred tax assets; and
- obligation for reclamation.

See note 36 to our consolidated financial information included in "Appendix I — Accountants' Report" for recently issued accounting standards and interpretations of existing standards that are not yet effective and have not been adopted early by us. We are in the process of making an assessment of the impact of the new and revised IFRSs set forth in the note.

### COMPONENTS OF OUR CONSOLIDATED STATEMENTS OF PROFIT OR LOSS

The following table summarizes our consolidated statements of profit or loss for the periods indicated:

Voor anded December 21

	Y ear en	ded Decer	nber 31,	
	2015	2016	2017	
	(RN	IB in milli	ions)	
Revenue	2,152.1	2,363.1	2,672.0	
Cost of sales	(664.9)	(698.8)	(787.3)	
Gross profit	1,487.2	1,664.3	1,884.8	
Other income	20.5	26.2	36.0	
Selling and distribution expenses	(810.8)	(933.9)	(1,094.7)	
Administrative expenses	(234.3)	(258.3)	(296.0)	
Finance costs	(10.5)	(14.4)	(7.1)	
Share of profits less losses of associates	17.2	11.5	14.8	
Share of profits of a joint venture	16.5	17.3	20.2	
Profit before taxation	485.8	512.7	558.0	
Income tax	(75.4)	(78.2)	(82.3)	
Profit for the year/period	410.4	434.5	475.6	
Attributable to:				
Equity shareholder of the Company	254.2	262.1	271.5	
Non-controlling interests	156.2	172.4	204.2	

#### Revenue

We derive revenue from our four business segments: (i) pharmaceuticals; (ii) radioactive source products; (iii) irradiation; and (iv) independent clinical laboratory services and other businesses.

Our revenue for a business segment represents revenue generated from external sales, which is equal to the total revenue of the business segment after elimination of inter-segment revenue. In 2015,

2016 and 2017, our revenue was RMB2,152.1 million, RMB2,363.1 million and RMB2,672.0 million, respectively. The following table sets forth our revenue by business segment for the periods indicated:

				Year ei	ided Decem	ber 31,			
		2015		2016			2017		
	Revenue	Inter- segment Revenue	Segment Revenue	Revenue	Inter- segment Revenue	Segment Revenue	Revenue	Inter- segment Revenue	Segment Revenue
				(RN	AB in millio	ons)			
Pharmaceuticals	1,773.6	5.7	1,779.3	1,971.1	3.1	1,974.2	2,253.8	2.6	2,256.3
Radioactive source product	275.2	33.3	308.5	287.7	22.0	309.7	292.2	21.2	313.4
Irradiation	47.9	_	47.9	51.1	_	51.1	65.9	0.7	66.7
Independent clinical laboratory									
services and other businesses	55.4	12.1	67.5	53.2	11.8	65.0	60.1	45.4	105.6
Elimination		(51.1)	(51.1)		(36.9)	(36.9)		(69.9)	(69.9)
Total	2,152.1		2,152.1	2,363.1		2,363.1	2,672.0		2,672

Each inter-segment revenue from our pharmaceuticals, radioactive source products, irradiation as well as independent clinical laboratory services and other businesses accounted for 0.3%, 10.8%, nil and 17.9% of each relevant segment revenue in 2015, 0.2%, 7.1%, nil and 18.2% of each relevant segment revenue in 2016, 0.1%, 6.8%, 1.0% and 43.0% of each relevant segment revenue in 2017, respectively.

### **Pharmaceuticals**

Our pharmaceuticals business generates revenue primarily from manufacturing and sales of an extensive range of imaging diagnostic and therapeutic radiopharmaceuticals, UBT kits and analyzers, in vitro immunoassay reagents and kits and other products.

The following table sets forth a breakdown of revenue for our pharmaceuticals business segment by product category for the periods indicated:

		Y	ear ended	December 3	1,		
	20	15	20	016	20	17	
	Amount	, , , , , , , , , , , , , , , , , , , ,		% of Revenue	Amount	% of Revenue	
	(RMB in millions, except percentag					ages)	
Imaging diagnostic and therapeutic radiopharmaceuticals	871.9	49.2	912.8	46.3	1,011.3	44.9	
UBT kits and analyzers	771.5	43.5	919.5	46.6	1,123.7	49.9	
In vitro immunoassay diagnostic reagents and kits	130.2	7.3	138.8	7.1	118.8	5.3	
Total	1,773.6	100.0	1,971.1	100.0	2,253.8	100.0	

In 2015, 2016 and 2017, revenue of our pharmaceuticals business was RMB1,773.6 million, RMB1,971.1 million and RMB2,253.8 million, respectively. This business segment experienced the most significant sales growth among all our business segments during the Track Record Period, in line with the general market growth in China. The revenue growth in 2016 and 2017 were primarily driven by an increase in sales of UBT kits.

We have launched diversified marketing and promotional activities to enhance our brand awareness and recognition of our products. Such efforts are characterized by a strong emphasis on academic promotion to enhance awareness and recognition of our products in the nuclear medicine community and among patients in China. We regularly organize and participate in various academic conferences, seminars and symposia, during which we invite leading experts in diagnostic and

therapeutic areas to speak on the latest developments and share their experience to educate nuclear medicine physicians and other medical practitioners on our products. We also maintain long-term cooperative relationships with national academic associations and provide technical and practical training to hospitals and other medical institutions to help us more effectively market and sell our products.

### Imaging diagnostic and therapeutic radiopharmaceuticals

Revenue of our imaging diagnostic and therapeutic radiopharmaceuticals business was RMB871.9 million, RMB912.8 million and RMB1,011.3 million in 2015, 2016 and 2017, representing 49.2%, 46.3% and 44.9%, respectively, of the revenue for our pharmaceuticals business segment for the same periods. For more information on our major imaging diagnostic and therapeutic radiopharmaceuticals products, see "Business — Pharmaceuticals — Imaging diagnostic and therapeutic radiopharmaceuticals." The increase in revenue from such business in 2016 mainly reflected the increased revenue generated from our major imaging diagnostic and therapeutic radiopharmaceuticals products, including sodium iodine-131 oral solution, iodine-125 sealed source, technetium-99m labeled injection and strontium-89 chloride injection. The increase in 2017 as compared to the same period in 2016 was mainly due to the increased revenue derived from fluorine-18-FDG injections, molybdenum-99/technetium-99m generator, sodium iodine-131 oral solution, technetium-99m labeled injection and iodine-125 sealed source.

### *UBT kits and analyzers*

Revenue from sales of our UBT kits and analyzers business was RMB771.5 million, RMB919.5 million and RMB1,123.7 million in 2015, 2016 and 2017, representing 43.5%, 46.6% and 49.9%, respectively, of the revenue for our pharmaceuticals business segment for the same periods. For more information on our major UBT kit and analyzer products, see "Business — Pharmaceuticals — UBT kits and analyzers." The increase in revenue during the Track Record Period mainly reflected the increased revenue generated from our major UBT kit, principally carbon-14 UBT kit.

## In vitro immunoassay diagnostic reagents and kits

Revenue from sales of our in vitro immunoassay diagnostic reagents and kits business was RMB130.2 million, RMB138.8 million and RMB118.8 million in 2015, 2016 and 2017, representing 7.3%, 7.1% and 5.3%, respectively, of the revenue of our pharmaceuticals business segment for the same periods. For more information on our major in vitro immunoassay diagnostic reagent and kit products, see "Business — Pharmaceuticals — Product Portfolio — In vitro immunoassay diagnostic reagents and kits." The slight increase in revenue in 2016 mainly reflected our increased sales volume of RIA kits. The decrease in 2017 was mainly due to the relatively lower sales of RIA kits as compared to the same period in 2016.

### Radioactive Source Products

Our radioactive source products business generates revenue primarily from sales of our medical and industrial radioactive source products and technical services. In 2015, 2016 and 2017, revenue of our radioactive source products business was RMB275.2 million, RMB287.7 million and RMB292.2 million, respectively.

The following table sets forth a breakdown of the revenue for our radioactive source products business segment by product category for the periods indicated:

	Year ended December 31,						
	2015		2016		20	017	
	Amount	% of Revenue	Amount	% of Revenue	Amount	% of Revenue	
		(RMB i	n millions, except perce		entages)		
Industrial radioactive source products	199.4	72.5	210.1	73.0	192.6	65.9	
-Cobalt-60 for irradiation services	60.3	21.9	66.7	23.2	78.1	26.7	
-Others	139.1	50.6	143.4	49.8	114.5	39.2	
Medical radioactive source products	46.8	17.0	56.6	19.7	60.0	20.5	
Technical services	29.0	10.5	21.0	7.3	39.6	13.6	
Total	275.2	100.0	287.7	100.0	292.2	100.0	

The revenue growth in 2016 was primarily driven by an increase in revenue from our medical radioactive source products, principally cobalt-60 source for medical radiotherapy purposes, and our industrial radioactive source products, mainly cesium-137 and americium-241/beryllium neutron source. The increase in 2017 as compared to the same period in 2016 was mainly due to the growing revenue from (i) our cobalt-60 source for industrial use, and (ii) our provision of technical services, as a result of our continuous efforts to develop decommission of radioactive source business.

### *Industrial radioactive source products*

Revenue from our industrial radioactive source products mainly comprises our sales of cobalt-60 for irradiation services and sales of other products, principally californium-252 startup neutron source, iridium-192 non-destructive testing radioactive source, cesium-137 source and americium-241/beryllium neutron source. The industrial radioactive source products generated revenue of RMB199.4 million, RMB210.1 million and RMB192.6 million in 2015, 2016 and 2017, representing 72.5%, 73.0% and 65.9%, respectively, of the revenue for our radioactive source products business segment for the same periods. The changes during the Track Record Period substantially corresponded to the changes in market demand for industrial radioactive source products in line with the nature of our industrial radioactive source products, as we produce individually tailored industrial radioactive source products to our customers on demand.

## Medical radioactive source products

Revenue from sales of our medical radioactive source products amounted to RMB46.8 million, RMB56.6 million and RMB60.0 million in 2015, 2016 and 2017, representing 17.0%, 19.7% and 20.5%, respectively, of the revenue for our radioactive source products business segment for the same periods. For more information on our major medical radioactive source products, see "Business — Radioactive Source Products — Product Portfolio." The increase in revenue from our medical radioactive source products in 2016 was primarily due to the increase in sales volume of cobalt-60 source for medical radiotherapy. The increase in 2017 was mainly due to the increased revenue generated from the sales of gamma knife therapy devices.

### Technical services

In addition to the production of various radioactive source products, we provide technical services associated with our sales of radioactive source products, mainly including sealed source reloading, radioactive material transportation and decommission of radioactive sources. Revenue for

our technical services amounted to RMB29.0 million, RMB21.0 million and RMB39.6 million in 2015, 2016 and 2017, representing 10.5%, 7.3% and 13.6%, respectively, of the revenue for our radioactive source products business segment for the same periods. The decrease in 2016 was mainly due to (i) the decreased transaction volume of our medical and industrial radioactive source products which in turn reduced customer demand for our technical services, and (ii) the renovation of certain of our production lines, mainly for our medical radioactive source products. The increase in 2017 as compared to the same period in 2016 was mainly attributable to our continuous efforts to develop decommission of radioactive source business.

#### Irradiation

Our irradiation business segment generates revenue primarily from the provision of irradiation services to manufacturers of medical devices, traditional Chinese medicine, cosmetics and food for sterilization purposes, and the provision of EPC services relating to irradiation facilities to irradiation service providers in China. Revenue from our irradiation business amounted to RMB47.9 million, RMB51.1 million and RMB65.9 million in 2015, 2016 and 2017, respectively.

The following table sets forth a breakdown of revenue for our irradiation business segment by service category for the periods indicated:

		Y	ear ended	December 3	1,	
	20	)15	20	)16	2017	
	Amount	% of Revenue	Amount	% of Revenue	Amount	% of Revenue
		(RMB i	n millions,	except perce	entages)	
Irradiation services	38.5	80.4	44.3	86.7	53.0	80.4
Irradiation facilities EPC services	9.4	19.6	6.8	13.3	13.0	19.6
Total	47.9	100.0	51.1	100.0	65.9	100.0

The increase in 2016 as compared to 2015 was mainly a result of our increased revenue from irradiation services rendered, mainly due to our growing irradiation services business. The increase in 2017 as compared to 2016 was mainly due to the overall expansion of such business segment.

### Irradiation services

Revenue generated from our irradiation services was RMB38.5 million, RMB44.3 million and RMB53.0 million in 2015, 2016 and 2017, representing 80.4%, 86.7% and 80.4%, respectively, of the revenue for our irradiation business segment for the same periods. The increases during the Track Record Period were primarily due to the organic growth of our irradiation service business and the trial operation of our new irradiation facilities located in Jilin province and Sichuan province.

### Irradiation facilities EPC services

Revenue generated from our irradiation facilities EPC services amounted to RMB9.4 million, RMB6.8 million and RMB13.0 million in 2015, 2016 and 2017, representing 19.6%, 13.3% and 19.6%, respectively, of the revenue for our irradiation business for the same periods. The decrease in 2016 mainly resulted from weaker market demand on irradiation facilities in China. The increase in 2017 was mainly because we recognized such amount of revenue upon completion of project during such period as compared to the same period in 2016.

## Independent Clinical Laboratory Services and Other Businesses

As a downstream extension of our in vitro immunoassay diagnostic reagents and kits, we provide independent clinical laboratory services to our customers. During the Track Record Period, we also generated revenue from trading of copper and provision of transportation services. In 2015, 2016 and 2017, revenue generated from our independent clinical laboratory services and other businesses amounted to RMB55.4 million, RMB53.2 million and RMB60.1 million, respectively.

The following table sets forth a breakdown of revenue for our independent clinical laboratory services and other businesses by service category for the periods indicated:

		Y	ear ended l	December 3	1,	
	20	15	20	16	2017	
	Amount	% of Revenue	Amount	% of Revenue	Amount	% of Revenue
		entages)				
Independent clinical laboratory services	36.8	66.4	43.5	81.8	57.5	95.7
Others	18.6	33.6	9.7	18.2	2.6	4.3
Total	55.4	100.0	53.2	100.0	60.1	100.0

The slight decrease in 2016 were mainly because we ceased our copper trading business in April 2016, partially offset by an increase in revenue from our independent clinical laboratory services. The increase in 2017 was mainly due to the increased revenue generated from our growing independent clinical laboratory services.

### Cost of Sales, Gross Profit and Gross Margin

Our cost of sales represents cost of sales of a business segment after elimination of intersegment cost of sales.

In 2015, 2016 and 2017, our cost of sales was RMB664.9 million, RMB698.8 million and RMB787.3 million, respectively, and our gross profit was RMB1,487.2 million, RMB1,664.3 million and RMB1,884.8 million. Our gross margin, which equals gross profit divided by revenue, was 69.1%, 70.4% and 70.5%, respectively, for the same periods. The increase in our gross margin in 2016 was primarily due to the increased sales of our pharmaceuticals, which had relatively higher profit margins, and a change in our product mix as our pharmaceuticals business segment grew faster relative to our other business segments during these periods. Our gross margin remained relatively stable at 70.5% in 2017 as compared to the previous year.

The following table sets forth a breakdown of our revenue, cost of sales, gross profit and gross margin by business segment for the periods indicated:

	2015 201			016	20	)17
	Amount	% of Revenue	Amount	% of Revenue	Amount	% of Revenue
		(RMB i	n millions,	except perc	entages)	
Pharmaceuticals						
Revenue	1,773.6	100.0	1,971.1	100.0	2,253.8	100.0
Cost of sales	456.7	25.7	479.9	24.3	545.5	24.2
Segment gross profit	1,316.9	74.3	1,491.2	75.7	1,708.2	75.8
Radioactive source products						
Revenue	275.2	100.0	287.7	100.0	292.2	100.0
Cost of sales	145.8	53.0	149.9	52.1	156.9	53.7
Segment gross profit	129.4	47.0	137.8	47.9	135.4	46.3
Irradiation						
Revenue	47.9	100.0	51.1	100.0	65.9	100.0
Cost of sales	29.9	62.4	32.0	62.6	44.9	68.1
Segment gross profit	18.0	37.6	19.1	37.4	21.1	31.9
Independent clinical laboratory services and other businesses						
Revenue	55.4	100.0	53.2	100.0	60.1	100.0
Cost of sales	32.6	58.8	37.1	69.7	40.0	66.5
Segment gross profit	22.8	41.2	16.1	30.3	20.2	33.5

The following table sets forth a breakdown of our cost of sales for the periods indicated:

	Year ended December 31,					
	20	15	201	16	201	17
	Amount	% of Cost of Sales	Amount	% of Cost of Sales	Amount	% of Cost of Sales
		(RMB in	millions, e	xcept per	centages)	
Raw materials costs	294.7	44.3	335.1	48.0	371.8	47.2
Staff costs	133.1	20.0	137.4	19.7	146.6	18.6
Trading costs	98.0	14.7	74.8	10.7	101.5	12.9
Depreciation and amortization	31.6	4.8	39.4	5.6	39.7	5.0
Business taxes and surcharges	31.2	4.7	33.3	4.8	39.7	5.0
Construction costs	6.1	0.9	2.7	0.4	7.9	1.0
Freight	9.4	1.4	8.7	1.2	8.5	1.1
Repair and maintenance	9.7	1.5	9.1	1.3	9.1	1.2
Gamma radiation processing cost	9.5	1.4	8.8	1.3	8.5	1.1
Fuel costs	7.2	1.1	9.6	1.4	9.0	1.1
Rental costs	6.5	1.0	7.6	1.1	7.0	0.9
Safety production expenses	10.8	1.6	9.5	1.3	15.9	2.0
Others	17.1	2.6	22.8	3.2	22.1	2.8
Total	664.9	100.0	698.8	100.0	787.3	100.0

Our raw material costs primarily consist of costs incurred for the procurement of radioisotopes for radiopharmaceuticals and radioactive source products, such as molybdenum-99/technetium-99, iodine-131, iodine-125, carbon-14 and strontium-89 chloride as well as other supplies. Our staff costs mainly include salaries and benefits for employees involved in the production of our products. Trading costs primarily consist of expenses incurred for goods purchased for sale, mainly including radioisotopes, labeled compound and radioactive source products. Depreciation and amortization mainly relate to property, plants and equipment as well as intangible assets used for the production of our products. Other costs include utilities, traveling, other production overheads and sundry expenses.

We purchase raw materials on an as-needed basis at market prices. In 2015, 2016 and 2017, our cost of sales accounted for 30.9%, 29.6% and 29.5% of our revenue for the same periods, in which our

raw material costs accounted for 44.3%, 48.0% and 47.2% of our cost of sales for the same periods, respectively.

### **Pharmaceuticals**

The principal components of cost of sales of our pharmaceuticals business segment mainly are raw material costs, trading costs, staff costs, depreciation and amortization as well as business taxes and surcharges. In 2015, 2016 and 2017, cost of sales in our pharmaceuticals business was RMB456.7 million, RMB479.9 million and RMB545.5 million, respectively. The increase in cost of sales in 2016 was largely due to the growth of such business segment, mainly reflecting the increased sales of our key imaging diagnostic and therapeutic radiopharmaceuticals, including sodium iodine-131 oral solution and iodine-125 sealed source. The increase 2017 as compared to the same period in 2016 mainly corresponded to the increased sales of our fluorine-18-FDG injections, molybdenum-99/technetium-99m generator, sodium iodine-131 oral solution, technetium-99m labeled injection and iodine-125 sealed source during such period.

In 2015, 2016 and 2017, segment gross profit, which is equal to revenue less cost of sales, was RMB1,316.9 million, RMB1,491.2 million and RMB1,708.2 million, respectively. In 2015, 2016 and 2017, segment gross margin, which is equal to segment gross profit divided by revenue, was 74.3%, 75.7% and 75.8%, respectively. During these periods, the gross margin of the pharmaceuticals business was primarily affected by a number of factors, such as product mix, customer mix, regulatory environment, market conditions and competition.

### Radioactive Source Products

The principal components of the cost of sales of our radioactive source products business segment mainly include raw material costs, trading costs, staff costs, depreciation and amortization as well as business taxes and surcharges. In 2015, 2016 and 2017, cost of sales in our radioactive source products business was RMB145.8 million, RMB149.9 million and RMB156.9 million, respectively. The increases in cost of sales during the Track Record Period generally corresponded to the increases in our sales scale.

In 2015, 2016 and 2017, segment gross profit, which is equal to revenue less cost of sales, was RMB129.4 million, RMB137.8 million and RMB135.4 million, and our gross margin, which is equal to segment gross profit divided by revenue, was 47.0%, 47.9% and 46.3%, respectively. During the Track Record Period, the gross margin of our radioactive source products business was primarily affected by a number of factors, including product mix and cost structure, regulatory environment, market conditions and competition. Our gross margin slightly increased in 2016 was primarily because of our decreased sales of californium-252 startup neutron source and iridium-192 non-destructive testing radioactive source, which have relatively lower profit margins. Our gross margin decreased in 2017 as compared to 2016 was primarily because of our increased proportion of sales of cobalt-60 source for industrial use and sales of gamma knife therapy devices, which have relatively lower profit margins.

We are implementing a number of strategies to improve profitability of our radioactive source products and technical services business. For example, we plan to further develop our cooperative relationships with key suppliers and customers, while strategically increasing our inventory stock of raw materials and actively exploring expansion of our sales scale and enhancement of our market share nationally.

#### Irradiation

The cost of sales of irradiation business mainly consists of the cost incurred for the provision of our EPC projects in relation to the design, construction and installment of irradiation facilities, depreciation and amortization on cobalt-60 and staff costs for our production and irradiation service employees. In 2015, 2016 and 2017, cost of sales in our irradiation business was RMB29.9 million, RMB32.0 million and RMB44.9 million, respectively. The changes in irradiation cost of sales during the Track Record Period generally corresponded to the changes in our operational scale.

In 2015, 2016 and 2017, segment gross profit, which is equal to revenue less cost of sales, was RMB18.0 million, RMB19.1 million and RMB21.1 million, and our segment gross margin, which is equal to segment gross profit divided by revenue, was 37.6%, 37.4% and 31.9%, respectively. The slight decrease of segment gross margin in 2016 was largely due to the change in our service mix. The decrease in such segment gross margin in 2017 as compared to 2016 was mainly due to the growing proportion of our irradiation facilities EPC service business which has a relatively lower gross margin.

To improve profitability of our irradiation business, we endeavor to further strengthen our promotional and marketing capability to expand our customer base, while enhancing our integration of irradiation services to optimize our service mix.

### Independent Clinical Laboratory Services and Other Businesses

The cost of sales of our independent clinical laboratory services and other businesses mainly consists of raw material costs incurred for in vitro immunoassay diagnostic reagents and kits relating to the provision of our independent clinical laboratory services and staff costs. In 2015, 2016 and 2017, cost of sales amounted to RMB32.6 million, RMB37.1 million and RMB40.0 million, respectively. The increases in cost of sales in the Track Record Period were largely due to the growth of our independent clinical laboratory services.

In 2015, 2016 and 2017, segment gross profit, which is equal to revenue less cost of sales, was RMB22.8 million, RMB16.1 million and RMB20.2 million, and our segment gross margin, which is equal to segment gross profit divided by revenue, was 41.2%, 30.3% and 33.5%, respectively. The decrease in our segment gross margin from 2015 to 2016 was mainly due to the changes in our service mix with different profit margin. The increase in our segment gross margin in 2017 was principally due to the faster increase in revenue from our independent clinical laboratory services largely as a result of our efforts to expand customer base with relatively higher profit margin.

### Other Income

Our other income consists primarily of interest income, government grants, rental income from operating leases and net gain or loss on disposal of property, plant and equipment. Interest income mainly represents the interest we earn from our cash deposits with banks and other financial institutions. Government grants mainly represent government awards relating to research and development projects and for our contribution to the development of the local economic development. There were no unfulfilled conditions or other contingencies attached to the government grants. Rental income mainly represents income received and related payments received for renting out our property, plant and equipment.

The following table sets forth a breakdown of our other income for the periods indicated:

	Year ended December 31,			
	2015	2016	2017	
	(RMB in millions)			
Interest income	6.1	7.3	15.9	
Government grants	4.6	7.3	9.0	
Rental income from operating leases	5.7	7.1	6.7	
Net (loss)/gain on disposal of property, plant and equipment	0.4	2.4	(1.2)	
Net (loss)/gain on disposal of long-term investments	1.3	_	_	
Distributions from unquoted equity investment	1.4	0.5	1.7	
Others	1.0	1.6	3.9	
Total	20.5	26.2	36.0	

In 2015, 2016 and 2017, our other income was RMB20.5 million, RMB26.2 million and RMB36.0 million, respectively.

### **Selling and Distribution Expenses**

Our selling and distribution expenses primarily consist of sales service fee, staff costs, freight expenses, advertising expenses, business development expenses, exhibition expenses and depreciation and amortization. Sales service fee mainly consists of expenses incurred for marketing and promotion services provided by our promoters and distributors, which largely relates to the sales of our iodine-125 sealed sources, strontium-89 chloride injections and UBT kits and UBT analyzers. Staff costs consists primarily of salaries and benefit expenses for our sales and marketing personnel. Freight expenses consist primarily of expenses incurred in relation to the delivery of our products and services from our production facilities and direct sales networks to customers. Business development expenses consist primarily of entertainment expenses incurred by sales and marketing staff as well as reception expenses. Advertising expenses consist primarily of fees associated with advertisements placed in various media and expenses incurred in conducting marketing and other promotional activities for our products and services. Exhibition expenses consist mainly of fees incurred for the sales and marketing of our products in exhibitions. Depreciation and amortization primarily relate to properties for sales and marketing activities. Others primarily include labor fees, travel expenses, professional consultancy fees and other miscellaneous fees for sales and marketing.

The following table sets forth a breakdown of our selling and distribution costs for the periods indicated:

	Year ended December 31,			
	2015	2016	2017	
	(RMB in millions)			
Sales service fee	675.0	789.6	955.0	
Staff costs	46.0	50.4	52.2	
Freight expenses	35.0	40.6	45.8	
Business development expenses	7.1	7.5	9.6	
Advertising expenses	12.8	12.6	7.1	
Exhibition expenses	2.1	7.9	5.7	
Depreciation and amortization	4.8	4.6	5.7	
Others	28.0	20.7	13.5	
Total	810.8	933.9	1,094.7	

In 2015, 2016 and 2017, our selling and distribution expenses were RMB810.8 million, RMB933.9 million and RMB1,094.7 million, respectively. During the Track Record Period, our selling and distribution expenses increased in proportion to the growth of our business.

## **Administrative Expenses**

Administrative expenses primarily consist of staff costs and research and development expenses, as well as various other expenses. Administrative staff costs primarily consist of salaries and employee benefit expenses for our management, administrative, finance and accounting staff. Research and development expenses, excluding amortization costs, primarily consist of costs, expenses and fees incurred in relation to our new product and service development and relevant staff costs. Administrative expenses also include impairment loss on trade receivables, depreciation and amortization charges related to our properties, facilities and intangible assets, traveling expenses, entertainment expenses, office expenses incurred by our administrative personnel, and other miscellaneous fees for general administrative purposes, including repair and maintenance, intermediary expenses, meeting expenses, costs incurred for buildings leased out and other sundry expenditures.

The following table sets forth the components of our administrative expenses for the periods indicated:

	Year ended December 31,		
	2015	2016	2017
	(RMB in millions)		
Staff costs	107.1	109.5	132.1
Research and development expenses, excluding amortization costs	44.6	58.7	73.5
Impairment loss	14.7	12.5	15.3
Depreciation and amortization	14.1	17.2	12.6
Traveling expenses	5.5	6.2	7.6
Entertainment expenses	4.3	3.3	2.9
Office expenses	3.3	2.9	3.6
Intermediary expenses	3.4	7.3	4.0
Repair and maintenance	1.0	0.9	0.5
Meeting expenses	1.3	0.9	1.2
Others	35.0	38.9	42.8
Total	234.3	258.3	296.0

In 2015, 2016 and 2017, our administrative expenses were RMB234.3 million, RMB258.3 million and RMB296.0 million, respectively. The increase in 2016 mainly resulted from the increased staff costs, research and development expenses (excluding amortization costs) and traveling expenses, mainly in relation to the Global Offering and our continued research and development efforts. The increase in 2017 was primarily due to the increases in staff costs, and research and development expenses (excluding amortization costs).

We expect our distribution expenses and administrative expenses to increase in absolute terms going forward, as we continue to expand the scale of our business operations through both organic growth and acquisitions.

#### **Finance Costs**

Our finance costs include interest on borrowings, interest accretion on reclamation obligation, interest cost on defined benefit retirement plans, as well as foreign exchange loss. Our interest on borrowings relates to interest expenses incurred on borrowings from third parties and related parties. Our interest accretion on reclamation obligation, relates to our future liabilities for reclamation and disposal of returned radioactive fixed assets. Our interest cost on defined benefit retirement plans is associated with the regulatory benefit contributions to our employees upon retirement based on the applicable benchmarks and rates stipulated by the PRC government and our internal salary and benefit policies.

The following table sets forth the components of our finance costs for the periods indicated:

	Year ended December :		
	2015	2016	2017
	(RM	B in millio	ons)
Interest on borrowings	5.1	9.0	2.2
Interest accretion on reclamation obligation	2.8	3.1	3.3
Interest cost on defined benefit retirement plans	1.1	1.2	1.4
Net foreign exchange loss	1.5	1.1	0.2
Total	10.5	14.4	7.1

As a percentage of revenue, finance costs increased slightly from 0.5% in 2015 to 0.6% in 2016, mainly reflecting our increased interest incurred for loans from related parties, while decreasing to 0.3% in 2017, primarily due to our decreased interest incurred for loans as we repaid our short-term borrowings in the first half of 2017. See "Appendix I — Accountants' Report — Material Related Party Transactions" for further details.

### Share of Profits Less Losses of Associates and Share of Profits of A Joint Venture

We account for an entity as our associate if we have significant influence but no control or joint control over such entity. We account for an entity as our joint venture if neither we nor our joint venture partner, pursuant to the relevant joint venture agreements, has unilateral control over the economic activities of such joint venture. Investments in associates or joint ventures are accounted for using the equity method of accounting. We recognize our share of profits less losses of associates and share of profits of a joint venture in the income statement.

In 2015, 2016 and 2017, we had share of profits less losses of associates of RMB17.2 million, RMB11.5 million and RMB14.8 million, respectively. In 2015, 2016 and 2017, we had share of profits of a joint venture of RMB16.5 million, RMB17.3 million and RMB20.2 million, respectively. We expect our share of profits less losses of associates and share of profits of a joint venture will not have a significant impact on our results of operations.

### **Income Tax**

Our income tax expense mainly consists of PRC enterprise income tax. Our Company and PRC subsidiaries are subject to income tax in China. Our PRC subsidiaries are subject to income tax at a rate of 25% on their respective taxable income, except for the following subsidiaries which enjoyed preferential tax treatment as of December 31, 2017, mainly including:

- seven of our subsidiaries, three of which were approved as "High and New Technology Enterprises" in September 2015, one in July 2017, two in August 2017 and one in October 2017, enjoyed preferential enterprise income tax rate of 15% for a three-year period. Under the EIT Law and the relevant regulations, the 15% preferential enterprise income tax rate is subject to renewal after expiry every three years;
- one of our PRC subsidiaries, which is engaged in the encouraged business activities under the Second Phase of the Western Region Development Plan, is entitled to a preferential enterprise income tax rate of 15% for a three-year period upon the satisfaction of a series of financial and non-financial requirements, which is currently scheduled to expire at the end of 2020. Such subsidiary enjoyed the income tax rate of 15% in 2015 and 2016; and

• two of our PRC subsidiaries, which are qualified as "Small and Micro Enterprises," enjoyed preferential enterprise income tax rate of 10% in 2016, which is currently scheduled to expire at the end of 2019 pursuant to the EIT Law and the relevant regulations, while three of our PRC subsidiaries, which are qualified as "Small and Micro Enterprises," enjoyed preferential enterprise income tax rate of 10% in 2015.

In addition to applicable enterprise income tax rates, our effective enterprise income tax rates may also be affected by amounts relating to portions of income not subject to taxation, costs and expenses not deductible for taxation purposes, certain tax benefits on qualified research and development expenses and utilization of tax losses for which no deferred income tax assets were recognized.

In 2015, 2016 and 2017, our income tax expense was RMB75.4 million, RMB78.2 million and RMB82.3 million, respectively. Our effective enterprise income tax rates in 2015, 2016 and 2017 were 15.5%, 15.3% and 14.8%, respectively.

During the Track Record Period and up to the Latest Practicable Date, we fulfilled all our tax obligations and did not have any material unresolved tax disputes.

## **RESULTS OF OPERATIONS**

The following discussion and analysis compares the major components of our operating results in 2015, 2016 and 2017.

# Comparison of Years Ended December 31, 2017 and December 31, 2016

### Revenue

Our revenue increased by 13.1% from RMB2,363.1 million in 2016 to RMB2,672.0 million in 2017, primarily due to increased revenue generated from our pharmaceuticals and irradiation segments.

### **Pharmaceuticals**

Revenue of our pharmaceuticals business segment increased by 14.3% from RMB1,971.1 million in 2016 to RMB2,253.8 million in 2017, primarily due to the increased sales scale of our imaging diagnostic and therapeutic radiopharmaceuticals and UBT kits and analyzers businesses.

• Imaging diagnostic and therapeutic radiopharmaceuticals

Revenue from sales of our imaging diagnostic and therapeutic radiopharmaceuticals increased by 10.8% from RMB912.8 million in 2016 to RMB1,011.3 million in 2017. This was mainly due to the increased revenue generated from our iodine-125 sealed source, fluorine-18-FDG injections, sodium iodine-131 oral solution, molybdenum- 99/technetium-99m generator and technetium-99m labeled injection, as driven by our ability to capture the high market demand through expanded distribution network during such period.

#### UBT kits and test analyzers

Revenue from sales of our UBT kits and analyzers increased by 22.2% from RMB919.5 million in 2016 to RMB1,123.7 million in 2017. This was mainly due to the increased revenue generated from

our carbon-14 UBT kit in response to the high market demand on such product by leveraging our expanded distribution network during this period.

### • In vitro immunoassay diagnostic reagents and kits

Revenue from in vitro immunoassay diagnostic reagents and kits decreased by 14.4% from RMB138.8 million in 2016 to RMB118.8 million in 2017. The decrease in revenue generated from our in vitro immunoassay diagnostic reagents and kits was mainly due to the relatively lower sales of RIA kits as compared to the same period in 2016.

### Radioactive Source Products

Revenue of our radioactive source products business segment slightly increased by 1.6% from RMB287.7 million in 2016 to RMB292.2 million in 2017. This increase was mainly due to the expanding sales of our cobalt-60 source for industrial use and our progressive provision of technical services.

# • Industrial radioactive source products

Revenue from sales of our industrial radioactive source products decreased by 8.3% from RMB210.1 million in 2016 to RMB192.6 million in 2017, primarily because of our decreased revenue from our products other than cobalt-60 for irradiation services from RMB143.4 million in 2016 to RMB114.5 million in 2017, mainly relating to our relatively lower revenue from californium-252 startup neutron source. Such decrease was partially offset by our increased revenue generated from the sales of cobalt-60 for irradiation services from RMB66.7 million in 2016 to RMB78.1 million in 2017 as a result of the increased sales volume.

### Medical radioactive source products

Revenue generated from our medical radioactive source products increased by 6.0% from RMB56.6 million in 2016 to RMB60.0 million in 2017. This was mainly due to our increased sales of gamma knife therapy devices, which primarily attributable to our enhanced efforts to increase sales of gamma knife therapy devices in the second half of 2017.

## Technical services

Revenue generated from our technical services increased significantly from RMB21.0 million in 2016 to RMB39.6 million in 2017. This was mainly attributable to our continuous efforts to develop decommission of radioactive source business.

#### Irradiation

Revenue of our irradiation business segment increased by 29.0% from RMB51.1 million in 2016 to RMB65.9 million in 2017, mainly due to the overall growth in such business segment.

#### • Irradiation services

Revenue generated from our irradiation services increased by 19.6% from RMB44.3 million in 2016 to RMB53.0 million in 2017, mainly attributable to our continuous efforts to grow such business.

### • Irradiation facilities EPC services

Revenue generated from our irradiation facilities EPC services increased by 89.7% from RMB6.8 million in 2016 to RMB13.0 million in 2017, primarily because we recognized the revenue from certain of our irradiation facilities EPC services upon completion of project.

## Independent Clinical Laboratory Services and Other Businesses

Revenue of our independent clinical laboratory services and other businesses segment increased by 13.0% from RMB53.2 million in 2016 to RMB60.1 million in 2017, mainly due to the increased revenue generated from our independent clinical laboratory services, which was primarily in line with the growing market demand, our business expansion and focus on promotion and marketing of independent clinical laboratory services.

# Cost of Sales, Gross Profit and Gross Margin

Our cost of sales increased by 12.7% from RMB698.8 million in 2016 to RMB787.3 million in 2017, corresponding to the increase in our total revenue.

Our gross profit was RMB1,664.3 million and RMB1,884.8 million and our gross margin remained relatively stable at 70.4% and 70.5%, respectively, in 2016 and 2017.

#### **Pharmaceuticals**

Cost of sales of our pharmaceuticals business segment increased by 13.7% from RMB479.9 million in 2016 to RMB545.6 million in 2017, corresponding to the increase in segment revenue, mainly relating to our fluorine-18-FDG injections, molybdenum-99/technetium-99m generator, sodium iodine-131 oral solution, technetium-99m labeled injection products and iodine-125 sealed source.

Segment gross profit of our pharmaceuticals business increased from RMB1,491.2 million in 2016 to RMB1,708.2 million in 2017, while segment gross margin amounted to 75.7% and 75.8% during the same periods.

## Radioactive Source Products

Cost of sales of our radioactive source products business segment increased by 4.7% from RMB149.9 million in 2016 to RMB156.9 million in 2017, corresponding to the increase in revenue of such segment, mainly reflecting the increased sales of our cobalt-60 for irradiation services.

Segment gross profit of our radioactive source products business segment decreased slightly from RMB137.8 million in 2016 to RMB135.4 million in 2017, while segment gross margin was 47.9% and 46.3% during the same periods. The decrease in segment gross margin largely reflected our increased proportion of sales of cobalt-60 source for industrial use and sales of gamma knife therapy devices, which have relatively lower profit margins.

### Irradiation

Cost of sales of our irradiation business segment increased by 40.3% from RMB32.0 million in 2016 to RMB44.9 million in 2017, mainly due to the increased sales scale of our irradiation business.

Segment gross profit of our irradiation business segment increased by 10.0% from RMB19.1 million in 2016 to RMB21.1 million in 2017, while segment gross margin was 37.4% and 31.9%. The decrease in segment gross margin during the period was largely attributable to the expanding portion of our irradiation facilities EPC service business with a relatively lower gross margin.

Independent Clinical Laboratory Services and Other Businesses

Cost of sales of our independent clinical laboratory services and other businesses segment increased by 7.8% from RMB37.1 million in 2016 to RMB40.0 million in 2017, mainly corresponding to the increased sales scale of independent clinical laboratory services.

Segment gross profit of our independent clinical laboratory services and other businesses segment increased from RMB16.1 million in 2016 to RMB20.2 million in 2017, while segment gross margin increased from 30.3% to 33.4% during the same period, mainly because of the faster increase in revenue generated from our independent clinical laboratory services largely as a result of our proactive efforts to expand customer base with relatively higher profit margin.

# Other Income

Our other income increased by 37.2% from RMB26.2 million in 2016 to RMB36.0 million in 2017, mainly due to (i) an increase in interest income on bank deposits associated with proceeds from the pre-IPO investment and (ii) an increase in our government grants from local government authorities in relation to our research and development programs, to encourage the development of certain enterprises established in the local special economic region or to support the general operations of such entities, largely relating to our imaging diagnostic and therapeutic radiopharmaceuticals, UBT kits and irradiation businesses.

### Selling and Distribution Expenses

Our selling and distribution expenses increased by 17.2% from RMB933.9 million in 2016 to RMB1,094.7 million in 2017, which mainly reflected an increase in sales service fee resulting from our growing operational scale, principally in relation to the sales of our imaging diagnostic and therapeutic radiopharmaceutical products.

As a percentage of revenue, selling and distribution expenses increased slightly from 39.5% in 2016 to 41.0% in 2017.

## Administrative Expenses

Our administrative expenses increased by 14.6% from RMB258.3 million in 2016 to RMB296.0 million in 2017, mainly due to (i) the increased staff costs resulting from our expanded operational scale and increased provision for employee retirement benefit plans, and (ii) the increased research and development expenses (excluding amortization costs) mainly reflected in our continued research and development efforts relating to our imaging diagnostic and therapeutic radiopharmaceuticals, and high enriched carbon-13 monoxide.

As a percentage of revenue, administrative expenses increased slightly from 10.9% in 2016 to 11.1% in 2017.

### Finance Costs

Our finance costs decreased by 50.7% from RMB14.4 million in 2016 to RMB7.1 million in 2017, which was mainly attributable to our decreased interest incurred for loans as we repaid our short-term borrowings in the first half of 2017.

## Share of Profits Less Losses of Associates and Share of Profits of A Joint Venture

Our share of profits less losses of associates increased by 28.7% from RMB11.5 million in 2016 to RMB14.8 million in 2017, mainly due to the increased profits derived from our associate, Shenzhen CICAM. Our share of profits of a joint venture increased by 16.8% from RMB17.3 million in 2016 to RMB20.2 million in 2017, mainly due to the increased profits from our joint venture, Shanghai GMS Pharmaceutical.

## Profit before Taxation

As a result of the foregoing, our profit before taxation increased by 8.8% from RMB512.7 million in 2016 to RMB558.0 million in 2017.

### Income Tax

Our income tax increased by 5.2% from RMB78.2 million in 2016 to RMB82.3 million in 2017, mainly due to our increased taxable income.

Our effective tax rate was 15.3% and 14.9% in 2016 and 2017, respectively.

# Profit for the Period

As a result of the foregoing, our profit for the period increased by 9.5% from RMB434.5 million in 2016 to RMB475.6 million in 2017.

# Comparison of Years Ended December 31, 2016 and December 31, 2015

### Revenue

Our revenue increased by 9.8% from RMB2,152.1 million in 2015 to RMB2,363.1 million in 2016, primarily due to increased revenue generated from our pharmaceuticals, radioactive source products and irradiation business segments.

#### **Pharmaceuticals**

Revenue of our pharmaceuticals business segment increased by 11.1% from RMB1,773.6 million in 2015 to RMB1,971.1 million in 2016, primarily due to an increase in sales from our UBT kits and analyzers, mainly carbon-14 UBT kit, carbon-14 helicobacter pylori analyzer and carbon-13 capsule UBT kit, as a result of expanding market application and growing market demand in China.

### • Imaging diagnostic and therapeutic radiopharmaceuticals

Revenue from sales of our imaging diagnostic and therapeutic radiopharmaceuticals increased by 4.7% from RMB871.9 million in 2015 to RMB912.8 million in 2016. This was mainly due to the

increased revenue generated from our major imaging diagnostic and therapeutic radiopharmaceuticals products, including sodium iodine-131 oral solution, iodine-125 sealed source, technetium-99m labeled injection and strontium-89 chloride injection, principally as a result of increased sales volume which in turn was primarily driven by the increasing market demand in China and our effective marking and promotional efforts to capture a large portion of the expanding PRC imaging diagnostic and therapeutic radiopharmaceuticals market.

## • *UBT kits and test analyzers*

Revenue from sales of our UBT kits and analyzers increased by 19.2% from RMB771.5 million in 2015 to RMB919.5 million in 2016. This was mainly due to the increased revenue generated from our major UBT kit and analyzer products, principally carbon-14 UBT kit with card, carbon-14 helicobacter pylori analyzer and carbon-13 capsule UBT kit, which was largely attributable to the increased sales volume resulting from our ability to capture the high market demand for such products in China through our effective marketing and promoting efforts.

# • In vitro immunoassay diagnostic reagents and kits

Revenue from in vitro immunoassay diagnostic reagents and kits increased by 6.6% from RMB130.2 million in 2015 to RMB138.8 million in 2016. The increase in revenue generated from our in vitro immunoassay diagnostic reagents and kits was mainly due to our increased sales volume of RIA kits, which was largely driven by the steadily growing market demand of our products in China in line with growing market trend and our continued efforts on enhancing marketing and sales.

#### Radioactive Source Products

Revenue of our radioactive source products business segment increased by 4.5% from RMB275.2 million in 2015 to RMB287.7 million in 2016. This increase was mainly due to an increase in sales from our medical radioactive source products, which mainly reflected our increased sales of cobalt-60 source for medical radiotherapy purposes as we strategically increased procurement of cobalt-60 aforehand.

### Industrial radioactive source products

Revenue from sales of our industrial radioactive source products increased by 5.4% from RMB199.4 million in 2015 to RMB210.1 million in 2016, primarily because of our increased revenue generated from the provision of cobalt-60 for irradiation services from RMB60.3 million in 2015 to RMB66.7 million in 2016, and our increased revenue from our other products from RMB139.1 million in 2015 to RMB143.4 million in 2016, mainly relating to the increased sales of our cesium-137 and americium-241/beryllium neutron source.

### Medical radioactive source products

Revenue generated from our medical radioactive source products increased from RMB46.8 million in 2015 to RMB56.6 million in 2016. This was mainly due to the increase in sales volume of cobalt-60 source for medical radiotherapy, which in turn was attributable to our effective efforts to procure sufficient raw material of cobalt-60 beforehand to meet our production needs.

#### • Technical services

Revenue generated from our technical services decreased from RMB29.0 million in 2015 to RMB21.0 million in 2016. This was mainly attributable to the suspension of our certain production lines for renovation, mainly in relation to the manufacturing of our medical radioactive source products, which reduced the revenue from our technical service contracts recognized in 2016.

#### Irradiation

Revenue of our irradiation business segment increased from RMB47.9 million in 2015 to RMB51.1 million in 2016, mainly due to our increased revenue from irradiation services rendered.

#### • Irradiation services

Revenue generated from our irradiation services increased from RMB38.5 million in 2015 to RMB44.3 million in 2016, mainly attributable to our growing revenue generated from existing irradiation facilities and the trial operation of our new irradiation facilities located in Sichuan and Jilin provinces.

# • Irradiation facilities EPC services

Revenue generated from our irradiation facilities EPC services decreased from RMB9.4 million in 2015 to RMB6.8 million in 2016, primarily in line with a slowdown in market demand.

## Independent Clinical Laboratory Services and Other Businesses

Revenue of our independent clinical laboratory services and other businesses segment decreased slightly from RMB55.4 million in 2015 to RMB53.2 million in 2016, mainly due to the reduced revenue from our other businesses as we strategically ceased our copper trading business in April 2016, which did not align with our core business. Such decrease was partially offset by an increase in revenue from our independent clinical laboratory services, largely because of the growing market demand for our independent clinical laboratory services and our effective marketing and promotional efforts to strengthen our market position and expand our business operations.

## Cost of Sales, Gross Profit and Gross Margin

Our cost of sales increased by 5.1% from RMB664.9 million in 2015 to RMB698.8 million in 2016, corresponding to the increase in revenue.

Our gross profit was RMB1,487.2 million and RMB1,664.3 million in 2015 and 2016, and our gross margin was 69.1% and 70.4%, respectively, during the same period. The slight increase in our gross margin was primarily due to the increased sales of our pharmaceuticals, which has relatively higher profit margins, and a change in our product mix as our pharmaceuticals business segment grew faster relative to our other business segments during the periods.

#### **Pharmaceuticals**

Cost of sales of our pharmaceuticals business segment increased by 5.1% from RMB456.7 million in 2015 to RMB479.9 million in 2016, corresponding to the increase in segment revenue, mainly relating to the increased sales of our sodium iodine-131 oral solution and iodine-125 sealed source.

Segment gross profit of our pharmaceuticals business increased from RMB1,316.9 million in 2015 to RMB1,491.2 million in 2016, while segment gross margin increased from 74.3% to 75.7% during the same period, mainly due to our increased sales of UBT kits and analyzers, which have relatively higher gross profit margins.

### Radioactive Source Products

Cost of sales of our radioactive source products business segment increased by 2.8% from RMB145.8 million in 2015 to RMB149.9 million in 2016, corresponding to the increase in revenue of such segment, mainly reflecting the increased sales of our cobalt-60 for medical radiotherapy purposes.

Segment gross profit of our radioactive source products business segment increased from RMB129.4 million in 2015 to RMB137.8 million in 2016, while segment gross margin remained relatively stable at 47.0% and 47.9% during the same period.

### Irradiation

Cost of sales of our irradiation business segment increased by 7.0% from RMB29.9 million in 2015 to RMB32.0 million in 2016, mainly due to the increased sales scale of our irradiation services.

Segment gross profit of our irradiation business segment increased slightly from RMB18.0 million in 2015 to RMB19.1 million in 2016, while segment gross margin was 37.6% and 37.4%.

## Independent Clinical Laboratory Services and Other Businesses

Cost of sales of our independent clinical laboratory services and other businesses segment increased by 13.8% from RMB32.6 million in 2015 to RMB37.1 million in 2016, mainly due to the increased sales scale of our independent clinical laboratory services.

Segment gross profit of our independent clinical laboratory services and other businesses segment decreased from RMB22.8 million in 2015 to RMB16.1 million in 2016, while segment gross margin decreased from 41.2% to 30.3% during the same period, mainly because we ceased our copper trading business in April 2016, which recognized a relatively higher gross margin over the past few years.

### Other Income

Our other income increased by 27.8% from RMB20.5 million in 2015 to RMB26.2 million in 2016, mainly due to (i) an increase in our government grants from local government authorities in relation to our commercialized research and development programs and our contributions to the local economy, principally reflecting the subsidies received from government as high and new technology enterprise and for the compensation of expenditure arising from our research and development of radiopharmaceuticals labeled with fluorine-18, (ii) net gain on disposal of property, plant and equipment due to our disposal of certain production facilities and office building in Chengdu, and (iii) an increase in rental income from operating leases, which was generated from renting out certain of our property, plant and equipment.

# Selling and Distribution Expenses

Our selling and distribution expenses increased by 15.2% from RMB810.8 million in 2015 to RMB933.9 million in 2016, which mainly reflected (i) an increase in sales service fee resulting from our growing operational scale and the increased number of our distributors and promoters, principally reflecting the continued efforts to reinforce our brand recognition through promotional and marketing activities in response to market competition, (ii) an increase in staff costs resulting from an increase in the number of our sales and marketing employees and our increased salary paid to existing staff and to attract and retain talented employees, (iii) an increase in freight costs associated with our increased sales volume and the change in our transportation methods to control the risks involved in our radioactive product transportation, and (iv) an increase in exhibition expenses, principally relating to the promotional activities involving our UBT kits and analyzers.

As a percentage of revenue, selling and distribution expenses increased from 37.7% in 2015 to 39.5% in 2016, which was mainly due to a relatively faster increase in our distribution expenses compared to the increase in our total revenue, principally attributable to our efforts to expand and strengthen our sales team and increased investment in advertising and promotional activities for our products and services to expand our operation.

# Administrative Expenses

Our administrative expenses increased by 10.2% from RMB234.3 million in 2015 to RMB258.3 million in 2016, mainly due to (i) the increased research and development expenses, mainly reflected in our continued research and development efforts relating to our radiopharmaceutical products and commercial production of raw materials cobalt-60 for medical applications, (ii) the increased staff costs resulting from our expanded operational scale and business strategy to recruit and retain talent and (iii) other expenses, mainly reflecting (i) our increased cost of building leased out, primarily because (a) we recognized the utility expenses paid by us on behalf of our lessees as other operating expenses in 2016 in response to the PRC regulatory changes in collecting VAT in lieu of business tax, and (b) we increased the depreciation of certain investment property in Jiangsu province, and (ii) our increased handling charges, principally as a result of our enlarged transaction volume of cobalt-60 settled in foreign currency.

As a percentage of revenue, administrative expenses remained stable at 10.9% in 2015 and in 2016, due to our effective implementation of internal cost control measures.

### Finance Costs

Our finance costs increased by 37.1% from RMB10.5 million in 2015 to RMB14.4 million in 2016, which was mainly attributable to the increased interest on borrowings which was attributable to interest incurred on loans borrowed from related parties and a bank to supplement our working capital and finance the operational expansion and project construction of our subsidiaries.

## Share of Profits Less Losses of Associates and Share of Profits of A Joint Venture

Our share of profits less losses of associates decreased by 33.1% from RMB17.2 million in 2015 to RMB11.5 million in 2016, mainly due to the decreased profits generated by our associate, Shenzhen CICAM. Our share of profits of a joint venture increased by 4.8% from RMB16.5 million in 2015 to RMB17.3 million in 2016, mainly due to the increased profits generated by our joint venture, Shanghai GMS Pharmaceutical.

# Profit before Taxation

As a result of the foregoing, our profit before taxation increased by 5.5% from RMB485.8 million in 2015 to RMB512.7 million in 2016.

#### Income Tax

Our income tax increased by 3.7% from RMB75.4 million in 2015 to RMB78.2 million in 2016, mainly due to our increased taxable income.

Our effective tax rate remained relatively stable at 15.5% and 15.3% in 2015 and 2016, respectively.

# Profit for the Year

As a result of the foregoing, our profit for the year increased by 5.9% from RMB410.4 million in 2015 to RMB434.5 million in 2016.

## LIQUIDITY AND CAPITAL RESOURCES

#### Overview

Our liquidity requirements primarily relate to working capital needs, capital expenditures, debt repayment and business acquisitions. Our principal sources of liquidity are cash generated from our operations, bank borrowings and borrowings from CNNC and CNNCFC.

Going forward, we expect these sources to continue to be our principal sources of liquidity. In the future, if our capital expenditures or other long-term commitments increase, or if we need significant financing for business acquisitions, we may decide to incur additional long-term indebtedness, depending on our financial condition at the time, taking into account net proceeds from the Global Offering. We do not anticipate any changes to the availability of financing to fund our operations in the future, although there is no assurance that we will be able to access any financing on favorable terms or at all.

As of December 31, 2015, 2016 and 2017, we had cash and cash equivalents of RMB652.1 million, RMB918.6 million and RMB1,139.2 million, respectively.

The following discussion of liquidity and capital resources principally focuses on our cash flows, working capital and indebtedness.

### **Cash Flows**

The following table sets forth our cash flows for the periods indicated:

	Year ended December 31,			
	2015	2016	2017	
	(RM	B in millio	1s)	
Net cash from operating activities	389.5	457.6	429.8	
Net cash used in investing activities	(76.0)	(150.4)	(437.5)	
Net cash from/(used in) financing activities	(471.0)	(40.8)	228.4	
Net increase/(decrease) in cash and cash equivalents	(157.5)	266.4	220.7	
Cash and cash equivalents at the beginning of the year/period	809.5	652.1	918.6	
Effect of foreign exchange rate changes	0.1	0.1	(0.1)	
Cash and cash equivalents at the end of the year/period	652.1	918.6	1,139.2	

# Net Cash from Operating Activities

Our cash from operating activities consist primarily of payments from our sale of imaging diagnostic and therapeutic radiopharmaceuticals, radioactive source products and provision of EPC services of irradiation facilities and contract irradiation services. Cashflow from operating activities reflects: (i) profit before taxation adjusted for finance costs and non-cash and non-operating items, such as depreciation and amortization, (ii) the effect of movements in working capital, such as increases in trade and bill receivables, trade payables and accruals and other payables, and (iii) other cash items such as income tax paid.

In 2017, we had net cash from operating activities of RMB429.8 million, resulting from our profit before taxation of RMB558.0 million and negative impact on cash flow of changes in working capital. Such movements in working capital primarily reflected (i) an increase in trade and bill receivables of RMB292.4 million, due mainly to the growth of our pharmaceuticals and irradiation businesses, (ii) an increase in prepayments, deposits and other receivables of RMB87.6 million, mainly related to prepayments for costs incurred in connection with the Global Offering and prepayments for purchase of gamma knife therapy devices for on-sell to customers. These cash outflows were partially offset by (i) an increase in accruals and other payables of RMB286.0 million, mainly resulting from payables to distributors and promoters and deposits from promoters associated with our growing UBT kits business, and (ii) an increase in trade payables of RMB78.2 million, mainly resulting from the increased purchases of gamma knife therapy devices for on-sell to customers.

In 2016, we had net cash from operating activities of RMB457.6 million, resulting from our profit before taxation of RMB512.7 million and negative impact on cash flow of changes in working capital. Such movements in working capital primarily reflected (i) an increase in trade and bill receivables of RMB150.1 million, due mainly to our business growth of pharmaceuticals and radioactive source products, and (ii) an increase in inventories of RMB37.7 million, due mainly to the increased stock of cobalt-60 for radioactive source products. These cash outflows were partially offset by (i) an increase in accruals and other payables of RMB146.3 million, mainly due to our increased service fees due to promoters and bonuses due to distributors and promoters as a result of the growth of our pharmaceuticals business, and (ii) a decrease in prepayments, deposits and other receivables of RMB27.6 million, mainly resulting from the repayment of deposits as we strategically ceased our copper trading business to focus on our core business.

In 2015, we had net cash from operating activities of RMB389.5 million, resulting from our profit before taxation of RMB485.8 million and negative impact on cash flow of changes in working capital. Such movements in working capital primarily reflected an increase in trade and bill receivables of RMB130.8 million, due mainly to an increase in sales of our pharmaceuticals business. These cash outflows were partially offset by (i) an increase in accruals and other payables of RMB100.8 million, mainly due to our increased service fees due to promoters and bonuses due to distributors and promoters for our pharmaceuticals business as a result of the continued expansion of such segment as well as our increased dividend payables, and (ii) an increase in trade payables of RMB17.4 million in relation to our pharmaceuticals business segments.

## Net Cash from (used in) Investing Activities

Net cash used in investing activities was RMB437.5 million in 2017, which was mainly due to (i) payment of RMB245.6 million for purchase of investment property, property, plant and equipment, lease prepayments and intangible assets, as we purchased equipment and machinery for our expanded

operational scale, mainly relating to the construction of our manufacturing and distribution facilities for short half-life radiopharmaceuticals, and (ii) the increase in deposit of RMB375.2 million with banks associated with the proceeds from pre-IPO investment. These cash outflows were partially offset by withdrawal of deposits with banks in the amount of RMB120.0 million as a part of our adjustment to funding source.

Net cash used in investing activities was RMB150.4 million in 2016, which was mainly due to (i) payment of RMB126.0 million for purchase of investment property, property, plant and equipment, lease prepayments and intangible assets, as we purchased equipment and machinery for our expanded operational scale, mainly relating to the construction of our manufacturing and distribution facilities for short half-life radiopharmaceuticals, (ii) payment of RMB40.0 million in connection with the holding of equity investments in CNNC Financial Leasing Company, and (iii) deposit of RMB106.7 million with banks. These cash outflows were partially offset by (i) withdrawal of deposits with banks in the amount of RMB80.3 million upon maturity and (ii) dividend of RMB23.6 million from the distribution from our joint venture, Shanghai GMS Pharmaceutical.

Net cash used in investing activities was RMB76.0 million in 2015, which was mainly due to (i) deposits of RMB276.6 million with banks, and (ii) consideration of RMB186.2 million paid for purchase of investment property, property, plant and equipment, lease prepayments and intangible assets primarily used to purchase land use rights and production facilities to expand our manufacturing capacities associated with imaging diagnostic and therapeutic radiopharmaceuticals and UBT kits and analyzers. These cash outflows were partially offset by (i) withdrawal of deposits with banks in the amount of RMB355.1 million upon maturity and (ii) dividend of RMB12.3 million received from our joint venture, Shanghai GMS Pharmaceutical.

## Net Cash from (used in) Financing Activities

Net cash from financing activities was RMB228.4 million in 2017, mainly consisting of proceeds totaling of RMB850.0 million raised from issuance of ordinary shares, partially offset by repayment of RMB480.0 million for bank borrowings.

Net cash used in financing activities was RMB40.8 million in 2016, mainly consisting of payment of RMB451.8 million as dividends to our shareholders and repayment of interest expenses in the amount of RMB9.0 million, partially offset by proceeds of RMB420.0 million raised from borrowings.

Net cash used in financing activities was RMB471.0 million in 2015, mainly consisting of repayment of RMB460.0 million for borrowings, dividends totaling RMB65.9 million paid and interest expenses of RMB5.1 million paid, partially offset by proceeds of RMB60.0 million raised from borrowings.

# **Working Capital**

Our Directors are of the opinion, and the Sole Sponsor concurs after due consideration and discussion with our senior management that, taking into account the estimated net proceeds from the Global Offering and cash flows generated from our operations, we have sufficient working capital for our present requirements, which is for at least the next 12 months from the date of this prospectus.

We may, however, need additional cash resources in the future if we experience changed business conditions or other developments. We may also need additional cash resources in the future if

we find and wish to pursue opportunities for investment, acquisition or other similar action. If we ever determine that our cash requirements exceed our amounts of cash and cash equivalents on hand, we may seek to issue debt or equity securities or obtain credit facilities. Any issuance of equity securities could cause dilution for our shareholders. Any incurrence of indebtedness could increase our debt service obligations and may cause us to be subject to restrictive covenants. It is possible that, when we need additional cash resources, financing will only be available to us in amounts or on terms that would not be acceptable to us or that financing will not be available at all.

### **NET CURRENT ASSETS**

As of December 31, 2015, 2016 and 2017, we had net current assets of RMB704.1 million, RMB622.3 million and RMB1,543.7 million, respectively. The following table sets forth our current assets, current liabilities and net current assets as of the dates indicated:

	As of December 31,			As of April 30,
'	2015	2016	2017	2018
		(RMB	in million	(unaudited)
Current Assets				
Trading securities	0.1	0.2	0.1	0.1
Gross amounts due from customers for contract work	0.0	0.5	_	_
Inventories	188.0	225.7	263.0	314.5
Trade and bill receivables	1,064.7	1,214.9	1,507.2	1,627.2
Prepayments, deposits and other receivables	141.4	126.9	210.7	482.1
Income tax recoverable	2.9	3.4	0.1	_
Cash at bank and on hand	711.2	1,003.2	1,478.8	1,066.5
Total Current Assets	2,108.3	2,574.8	3,459.9	3,490.4
Current Liabilities				
Borrowings	_	480.0	_	_
Trade payables	110.2	119.9	198.0	427.1
Accruals and other payables	1,203.4	1,255.0	1,606.5	1,388.4
Gross amounts due to customers for contract work	0.8	3.2	1.8	_
Provisions	54.7	60.0	64.6	65.7
Income tax payable	35.1	34.4	45.3	42.1
Total Current Liabilities	1,404.2	1,952.5	1,916.2	1,923.3
Net Current Assets	704.1	622.3	1,543.7	1,567.1

Our net current assets increased from RMB622.3 million as of December 31, 2016 to RMB1,543.7 million as of December 31, 2017, primarily due to an increase in our total current assets and a decrease in our total current liabilities simultaneously. The increase in our total current assets was primarily due to (i) an increase in cash at bank and on hand, as a result of the proceeds from pre-IPO investment, and (ii) an increase in trade and bill receivables, mainly attributable to the growth of our sales scale. The decrease in our total current liabilities was primarily due to a decrease in borrowings which was repaid by us in light of sufficient funds for our present needs, which were partially offset by an increase in accruals and other payables, principally reflecting (i) the increase in our deposits from promoters mainly as a result of increased sales scale and the implementation of more stringent risk control measures in relation to our UBT kits business and (ii) the increase in payables to promoters and distributors as a result of increased sales of our UBT kits.

Our net current assets decreased from RMB704.1 million as of December 31, 2015 to RMB622.3 million as of December 31, 2016, primarily due to a relatively faster increase in our total current liabilities compared to the increase in our total current assets. The increase in our total current

liabilities was primarily due to (i) an increase in borrowings incurred for working capital and capital expenditure and (ii) an increase in accruals and other payables, due to (a) the increases in our payables to distributors and promoters and deposits due to promoters, mainly as a result of increased sales scale and the implementation of more stringent risk control measures in relation to our UBT kits and analyzers, and (b) our increased receipts in advance from third-party customers, mainly attributable to our increased sales of cobalt-60 source for gamma knife benefited from our relevant leading position and strong domestic market demand for such products. The increase in our total current assets was due primarily to (i) an increase in cash at bank and on hand, as a result of the increases in sales and borrowings, and (ii) an increase in trade and bill receivables, mainly attributable to the growth of our sales scale, which was partially offset by a decrease in prepayments, deposits and other receivables associated with third parties, as we strategically ceased our copper trading business in April 2016 to focus on our core business.

### Inventories

As a manufacturer and service provider in the field of isotopes and irradiation technology applications, we need to maintain sufficient inventory levels to successfully operate our pharmaceuticals as well as radioactive source products businesses to meet our customer demand without excess inventory accumulation. Inventory levels in excess of customer demand may result in inventory write-downs, increase our inventory storage costs and adversely affect our liquidity.

Inventories are stated at the lower of cost and net realizable value. Costs of inventories are determined on a weighted average basis, and comprise all costs of purchase, costs of conversion and other costs incurred for bringing the inventories to their current location and condition. Net realizable value represents the estimated selling price for inventories less all estimated costs of completion and costs necessary to make the sale. Write-downs are applied to inventories where events or changes in circumstances indicate that the net realizable value is lower than the cost of inventories. The identification of obsolete inventories requires the use of judgment and estimates on the condition and usefulness of the inventories. In cases where the net realizable value of inventories assessed is less than expected, a recognition of write-down of inventories may arise, which would be recognized in profit or loss in the period in which such recognition takes place.

Our inventories include raw materials, work in progress, finished goods and others. The carrying amounts of inventories, net of write-down of inventories, were RMB188.0 million, RMB225.7 million and RMB263.0 million as of December 31, 2015, 2016 and 2017, respectively. The following table sets forth the components of our inventories as of the dates indicated:

	As of December 3		
	2015	2016	2017
	(RM	B in mill	ions)
Raw materials	97.7	112.4	119.5
Work in progress	42.5	61.7	60.6
Finished goods			65.5
Others	4.1	11.7	18.0
Less: Write-down	(0.2)	(0.7)	(0.7)
Total	188.0	225.7	263.0

Our inventory of raw materials is primarily used for the manufacturing and sale of our products and rendering of our services, which mainly relates to a variety of raw materials used in our pharmaceuticals business segment for the production of UBT kits, RIA kits and certain other imaging

diagnostic and therapeutic radiopharmaceuticals as well as our radioactive source products segment. Work in progress mainly comprises our services in progress and semi-finished products, primarily relating to our cobalt-60 sealed source and UBT kits and analyzers under production. Finished goods represent products ready to be sold by us, primarily including finished UBT kits and analyzers and industrial radioactive source products. Others consist of consumables and supplies, packaging materials and equipment purchased for sale.

The increase in our inventories as of December 31, 2016 from as of December 31, 2015 was mainly due to the increase in our raw materials, work in progress and consumables and supplies, primarily reflecting (i) our increased raw material stock of UBT analyzers and radioactive source products for medical radiotherapy, (ii) the enlarged inventory stock of semi-finished cobalt-60 and (iii) the increase in our goods in transit, mainly pharmaceuticals. The increase in our inventories as of December 31, 2017 from as of December 31, 2016 was mainly due to (i) our increased finished goods, principally relating to our increased sales of UBT kits, and (ii) our increased raw materials, mainly relating to the production of UBT kits.

The following table sets forth a breakdown of our inventory turnover days for the periods indicated:

	Year ended December 3		
	2015	2016	2017
		(days)	
Inventory turnover days <sup>(1)</sup>	100.6	108.4	113.3

<sup>(1)</sup> The calculation of inventory turnover days for any period is based on the average balance of inventory divided by cost of sales for the relevant period and then multiplied by the number of days in the relevant period. Average balance is calculated as the quotient of the sum of the beginning balance and ending balance, and two.

In 2015, 2016 and 2017, our inventory turnover days were 100.6 days, 108.4 days and 113.3 days, respectively. The increase in 2016 was mainly attributable to our increased inventory stock of cobalt-60 source used for irradiation services. The increased inventory turnover days in 2017 mainly reflected the faster growth in the balance of inventory as compared to the growth in cost of sales, largely due to the increase in our inventory of raw materials used for UBT kits and relevant finished goods.

We actively monitor and review our inventory levels on a regular basis to maintain a reasonable level of inventories throughout our production process, while we closely monitor and assess the sales performance of our products and services so that we can adjust our service and product mix and relevant production plans. We prudently increase the purchases of raw materials based on the raw material prices and our estimated production volumes and sales. If we fail to manage our inventories effectively, we may be subject to certain risks with regard to slow-moving or obsolete inventories.

As of April 30, 2018, the latest date for liquidity disclosure, approximately RMB145.4 million, or 55.1%, of our inventories as of December 31, 2017 were subsequently consumed or sold.

#### Trade and Bill Receivables

Our trade and bill receivables primarily represent the balances due from our customers that are independent third parties and related parties, less allowance for doubtful debts. Our trade and bill receivables are initially recognized at fair value and subsequently measured at amortized costs using the effective interest method less allowance for impairment of doubtful debts. Our management has

maintained a strict control over outstanding balances of trade and bill receivables and reviewed overdue amounts regularly.

The following table sets forth a breakdown of our trade and bill receivables as of the dates indicated:

	As of December 31,		
	2015	2016	2017
	(RM	B in milli	ons)
Trade receivable due from third parties	1,117.2	1,259.1	1,536.4
Trade receivable due from related parties under CNNC	13.1	12.1	16.5
Trade receivable due from associates and a joint venture	8.9	28.2	46.2
Bill receivable	15.3	15.8	22.3
Trade and bill receivables	1,154.5	1,315.2	1,621.4
Less: Allowance for doubtful debts	(89.8)	(100.3)	(114.2)
Total	1,064.7	1,214.9	1,507.2

As of December 31, 2015, 2016 and 2017, our carrying amounts of trade and bill receivables, net of allowance for doubtful debts, amounted to RMB1,064.7 million, RMB1,214.9 million and RMB1,507.2 million, respectively. Our trade and bill receivables increased in 2016, primarily reflecting the continued growth of our business relating to sodium iodine-131 oral solution, iodine-125 sealed source, strontium-89 chloride injection and UBT kits, and slower recovery from our key customers. Our trade and bill receivables increased in 2017 mainly due to (i) the continued growth in sales of our UBT kits and (ii) the extended period granted to our customers in light of our increasing price for molybdenum-99/technetium-99m generator.

We normally do not grant fixed credit period to our customers, and may decide to collect our trade and bill receivables on a case-by-case basis, taking various factors into consideration, including the types and location of customers, its historical payments, reputation and creditworthiness, cash flow conditions, the products being sold, as well as our relationship with the relevant customers. During the Track Record Period, our trade and bill receivables generally were recovered within one year.

The following table sets forth an aging analysis of our trade and bill receivables, net of allowance for doubtful debts, based on invoice date at the end of each reporting period:

	As o	er 31,	
	2015	2016	2017
	(RN	IB in milli	ons)
Within one year	959.3	1,085.7	1,352.6
One to two years	84.9	91.5	118.2
Two to three years	10.4	32.0	22.5
Over three years	10.1	5.7	13.9
Total	1,064.7	1,214.9	1,507.2

We conduct an evaluation of collectability and aging analysis of the receivables, which requires the use of our judgment and estimates to assess the period for indicators of impairment, and our regular assessment process is generally carried out at the end of each reporting period to determine whether there is objective evidence of impairment. We closely review the trade and bill receivables balances and any overdue balances on an ongoing basis and assesses the collectability of overdue balances. After fully considering the nature of trade and bill receivables and their collectability on a case-by-case basis, we have made provision for the impairment of certain long overdue trade and bill receivables in

order to ensure the quality of our assets. We provide allowance for trade and bill receivables whenever there is any objective evidence that the balances may not be collectible, such as significant financial difficulty of counterparty. We believe that we have made sufficient provision for the unsettled trade receivables based on our assessment and impairment provision policy, and no additional provision is necessary for the Track Record Period. See note 2 to our consolidated financial statements included in "Appendix I — Accountants' Report" for details of our impairment provision policy.

As of December 31, 2015, 2016 and 2017, we recognized allowance for doubtful debts of trade and bill receivables of RMB89.8 million, RMB100.3 million and RMB114.2 million, representing 8.4%, 8.3% and 7.6% of total trade and bill receivables, net of allowance for doubtful debts, respectively. We did not hold any collateral or other security over such amount for which we have made provisions. Allowance for doubtful debts of trade and bill receivables increased during the Track Record Period mainly as a result of the changes in our accounting estimates when recognizing impairment of trade and bill receivables and our business growth. In 2015, 2016 and 2017, RMB1.5 million, RMB0.9 million and RMB0.6 million, respectively, of trade and bill receivables were written off, as these amounts were determined to be uncollectible.

The aging analysis of the past-due trade and bill receivables that are not individually or collectively considered to be impaired is as follows:

	As of December 31		
	2015	2016	2017
	(R)	MB in mil	lions)
Within one year	891.0	1,019.1	1,255.7
One to two years	83.3	91.5	124.3
Two to three years	10.3	32.0	22.3
More than three years	8.7	5.7	6.2
Total		1,148.3	1,408.4

Of our total trade and bill receivables, we had carrying amounts of RMB993.3 million, RMB1,148.3 million and RMB1,408.4 million as of December 31, 2015, 2016 and 2017, respectively, which are past due but are regarded as not impaired, as we consider the trade and bill receivables under most circumstances as past due once the relevant transaction incurred, and also because there has not been a significant change in the credit standing of the debtors and the balances are still considered fully recoverable, though we do not hold any collateral over these receivables. In determining the recoverability of a receivable, we consider whether there has been any adverse change in the credit standing of the debtors from the date credit was initially granted. Since the concentration of credit risk is limited as our overdue customer mainly comprises our selected key customers with a good track record, we believe that no further credit provision is required in excess of the allowance for doubtful debts already provided for in our financial statements. In addition, we control the credit risk through our sales model. For example, we sell UBT kits directly to the customers through the production and marketing effort of promoters, with whom we usually enter into standard service agreements requiring a fixed amount of deposits per kit before our delivery of products to relevant customers. Such deposits will be refunded when we receive the payment from customers in full. In 2015, 2016 and 2017, our deposits from promoters amounted to RMB239.3 million, RMB296.0 million and RMB391.3 million, which accounted for 24.2%, 25.8% and 27.8%, respectively, of the past-due trade and bill receivables which were not individually considered to be impaired in the same periods.

The following table sets forth a breakdown of our trade and bill receivables turnover days for the periods indicated:

	Year ended December 3		
	2015	2016	2017
		(days)	
Trade and bill receivables turnover days <sup>(1)</sup>	169.5	176.5	185.9

<sup>(1)</sup> The calculation of trade receivables turnover days for any period is based on the average balance of trade and bill receivables divided by revenue for the relevant period and multiplied by the number of days in the relevant period. Average balance is calculated as the quotient of the sum of the beginning balance and ending balance, and two.

In 2015, 2016 and 2017, our trade and bill receivables turnover days were 169.5 days, 176.5 days and 185.9 days, respectively. Trade and bill receivables turnover days increased during these periods, which was mainly due to (i) the increase in the receivables turnover days in our pharmaceuticals, the revenue of which increased during the periods, while we had relatively slower recovery from our key customers with a good credit record, and (ii) our increased receivables associated with expanding sales scale of UBT kits as well as imaging diagnostic and therapeutic radiopharmaceuticals, particularly molybdenum-99/technetium-99m generator, in the first half of 2017.

As of April 30, 2018, RMB565.5 million, or 37.5%, of our trade and bill receivables as of December 31, 2017 have been subsequently settled.

# Prepayments, Deposits and Other Receivables

Our prepayments, deposits and other receivables consisted primarily of (i) our prepayments for purchase of inventories from related parties and third party suppliers, (ii) rental deposit and deposits made to obtain land use right and/or for bidding, (iii) amount due from relevant parties, which mainly represents receivables from disposal of plants and property; (iv) other receivables, which primarily consist of prepayments for rentals, services and custom duties; (v) staff advance, which mainly represents advances to employees for travel and business; (vi) deductible input VAT and (vii) prepayments for costs incurred in connection with the Global Offering.

The following table sets forth a breakdown of our prepayments, deposits and other receivables as of the dates indicated:

	As of December 3		
	2015	2016	2017
	(RM	B in mil	lions)
Prepayments for purchase of inventories	76.7	53.1	106.6
Receivable from purchase of Property Plant and equipment	4.3	17.4	17.4
Other non-trade due amount	2.0	6.3	3.7
Deposits	30.0	18.8	26.9
Deductible input VAT	6.7	12.5	23.6
Staff advance	8.3	5.9	5.1
Prepayments for costs incurred in connection with the Global Offering	_	2.6	16.0
Others	13.3	10.3	11.5
Total	141.4	126.9	210.7

The decrease from RMB141.4 million as of December 31, 2015 to RMB126.9 million as of December 31, 2016 primarily resulted from the decreases in (i) prepayment for purchase of inventories, mainly associated with the repayment of our prepayment for copper trading from third parties, and (ii) deposits and advances, as we were repaid certain amounts of deposits in relation to purchase of land by public auction for the construction of an irradiation station in Sichuan province, which was partially offset by an increase in receivables associated with related parties from disposal of plants, mainly relating to our production facility in Sichuan province and office building in Beijing. The increase from RMB126.9 million as of December 31, 2016 to RMB210.7 million as of December 31, 2017 primarily resulted from the increases in (i) prepayments for purchase of gamma knife therapy devices for on-sell to customers, (ii) deposits paid to customs for the use of our overseas customer's radioactive source containers in connection with our export sales of cobalt-60 sealed source for industrial use to such customer, (iii) deductible input VAT associated with our purchase of equipments for manufacturing and distribution facilities for technetium-99m labeled injections and fluorine-18-FDG injections, and (iv) prepayments for costs incurred in connection with the Global Offering.

## Trade and Other Payables

Our trade and other payables mainly consist of trade payables and accruals and other payables, which include receipts in advance, other taxes payables, deposits from promoters, payables to distributors and promoters, payables for staff-related costs, dividends payables and other accruals and payables.

The following table sets forth a breakdown of our trade and other payables as of the dates indicated:

	As o	r 31,	
	2015	2016	2017
	(RMB in millions)		
Trade payables	110.2	119.9	198.0
Accruals and other payables	1,203.4	1,255.0	1,606.5
Total	1,313.6	1,374.9	1,804.5

As of December 31, 2015, 2016 and 2017, our carrying amounts of trade and other payables amounted to RMB1,313.6 million, RMB1,374.9 million and RMB1,804.5 million, respectively. Our trade and other payables increased in 2016, primarily reflecting (i) the increase in trade payables, which resulted from our increased procurement of raw materials used by molybdenum-99/technetium-99m

generator, sodium iodine-131 oral solutions and iodine-125 sealed source and the extended term granted to us by the suppliers in relation to our procurement of cobalt-60 for irradiation services, (ii) the increase in receipts in advance from third-party customers, principally attributable to the strong market demand for our cobalt-60 sealed source for gamma knife, which benefited from our leading position in China, and (iii) the increases in our unsecured and interest-free deposits due to promoters for ordering goods, which will be repaid after delivery of goods, and payables to distributors and promoters, largely resulting from our increased sales scale, effective implementation of more stringent risk control measures and enhanced bargaining power in relation to the sales of our UBT kits and analyzers. The increase in 2017 was mainly attributable to (i) the increase in trade payables, mainly because of the increased purchases of gamma knife therapy devices for on-sell to customers and our increased procurement of raw materials used by carbon-13 capsule UBT kits, (ii) the increase in deposits from promoters, resulting principally from our increased sales of UBT kits, and (iii) the increase in payables to promoters and distributors, mainly relating to our increased sales of UBT kits.

During the Track Record Period and up to the Latest Practicable Date, we did not have any material default on any trade and other payables.

## Trade Payables

Our trade payables are repayable within the normal operating cycle or on demand, mainly incurred in our pharmaceuticals business for the purchase of raw materials used by industrial cobalt-60 sources, molybdenum-99/technetium-99m generator, sodium iodine-131 oral solutions and iodine-125 sealed sources.

The following table sets forth a breakdown of our trade payables as of the dates indicated:

	As of	er 31,	
	2015	2016	2017
	(RM	B in mill	lions)
Trade payable due to			
— third parties	55.6	69.6	137.3
— related parties under CNNC	48.5	43.1	53.2
— associates and a joint venture	6.1	7.2	7.6
Total	110.2	119.9	198.0

As of December 31, 2015, 2016 and 2017, we had in aggregate trade payables of RMB110.2 million, RMB119.9 million and RMB198.0 million, respectively. The increases in our trade payables in 2016 were primarily due to (i) the increased payables relating to our procurement and processing of molybdenum-99/technetium-99m generator, sodium iodine-131 oral solutions and iodine-125 sealed sources and (ii) the extended credit period granted to us by the suppliers associated with the procurement of cobalt-60 for irradiation services. The increase in 2017 was mainly due to the increased purchases of gamma knife therapy devices for on-sell to customers and our increased procurement of raw materials for carbon-13 capsule UBT kits.

The table below sets forth an aging analysis of trade payables based on invoice date at the end of each reporting period indicated:

	As of December 31,		
	2015	2016	2017
	(RM	B in mil	ions)
Within one year			
One to two years	_	_	22.4
Total			198.0

The following table sets forth a breakdown of our trade payables turnover days for the periods indicated:

	Year ended December 31,		
	2015	2016	2017
		(days)	
Trade payables turnover days <sup>(1)</sup>	55.7	60.2	73.7

<sup>(1)</sup> The calculation of trade payables turnover days for any period is based on the average balance of trade payables divided by cost of sales for the relevant period and multiplied by the number of days in the relevant period. Average balance is calculated as the quotient of the sum of the beginning balance and ending balance, and two.

Our trade payables turnover days increased from 55.7 days in 2015 to 60.2 days in 2016, which was mainly due to (i) decreased costs incurred for cobalt-60 sources, mainly as a result of the downturn in overall radioactive source market and the decreased supply of medical cobalt-60 sources in China, and (ii) the extended credit period granted to us by our suppliers in response to the relatively slower market growth in China. Our trade payables turnover days increased further to 73.7 days in 2017, mainly attributable to (i) the increased trade payables in relation to the purchases of gamma knife therapy devices for on-sell to customers and our increased procurement of raw materials for carbon-13 capsule UBT kits and (ii) the extended credit period granted to us by our suppliers with long-term cooperative relationships.

As of April 30, 2018, RMB104.9 million, or 53.0%, of our trade payables as of December 31, 2017, have been subsequently settled.

# Accruals and Other Payables

Our accruals and other payables primarily consist of payables to distributors and promoters, deposits from promoters, payables for staff-related costs, receipts in advance, other taxes payables, dividends payables and other accruals and payables.

The following table sets forth a breakdown of our accruals and other payables as of the dates indicated:

	As of December 31,		
	2015	2016	2017
	(RN	IB in milli	ons)
Payables to distributors and promoters	443.1	529.5	708.2
Deposits from promoters	239.3	296.0	391.3
Payables for staff-related costs	162.8	137.1	120.6
Receipts in advance	45.5	80.8	89.0
Other taxes payables	30.0	40.8	51.0
Dividends payables	173.1	42.1	100.6
Other accruals and payables	109.6	128.7	145.8
Total	1,203.4	1,255.0	1,606.5

### • Payables to Distributors and Promoters

Our payables to distributors and promoters represent service fees due to promoters and bonuses due to distributors and promoters, primarily relating to the sales of our iodine-125 sealed source, strontium-89 chloride injection and UBT kits and analyzers. Our payables to distributors and promoters increased significantly from RMB443.1 million as of December 31, 2015 to RMB529.5 million as of December 31, 2016, and further to RMB708.2 million as of December 31, 2017, primarily due to the increased sales scale of our UBT kits.

## • Deposits from Promoters

Our deposits due to promoters primarily consist of unsecured and interest-free deposits paid by our promoters for ordering goods, which will be repaid after delivery of goods, primarily in relation to the sales of our UBT kits. As of December 31, 2015, 2016 and 2017, our deposits due to promoters amounted to RMB239.3 million, RMB296.0 million and RMB391.3 million, respectively. The general increase in our deposits due to promoters was primarily due to our increased sales scale, effective implementation of stricter risk control measures and enhanced bargaining power in relation to the sales of our UBT kits.

### Payables for Staff-related Costs

Our payables for staff-related costs primarily consist of employee salary, insurance and other benefit payables. Our payables for staff-related costs increased from RMB162.8 million as of December 31, 2015 to RMB137.1 million as of December 31, 2016 as we deferred the payment of certain amount of recognized salaries in accordance with performance assessment, and then decreased to RMB120.6 million as of December 31, 2017, primarily due to our actual payment of such salary payables in accordance with performance assessment.

#### • Receipts in Advance

Our receipts in advance primarily consist of prepayments received from our customers relating to the sales of our goods and services in the pharmaceuticals and radioactive source products business segments. Our receipts in advance decreased from RMB45.5 million as of December 31, 2015 to RMB80.8 million as of December 31, 2016, which was primarily due to the decreased sales of our industrial radioactive source products, while the increase from RMB80.8 million as of December 31, 2016 to RMB89.0 million as of December 31, 2017 was primarily a result of our expanded operational scale with regard to our pharmaceuticals and radioactive source products business segments, mainly including receipts in advance from the customers for our cobalt-60 radioactive source for industrial use and iodine-125 sealed sources.

# • Other Taxes Payables

Our other taxes payables primarily relate to our taxes payables except for income tax payables, mainly VAT payables. As of December 31, 2015, 2016 and 2017, our other taxes payables amounted to RMB30.0 million, RMB40.8 million and RMB51.0 million, respectively. The general increase during these periods in our other taxes payables was primarily due to our growing business scales.

# • Other Accruals and Payables

Our other accruals and payables mainly consist of payables relating to project construction, procurement of fixed assets and other accruals. As of December 31, 2015, 2016 and 2017, our other

accruals and payables amounted to RMB109.6 million, RMB128.7 million and RMB145.8 million, respectively. Our other accruals and payables increased during the Track Record Period as we strategically focused on the construction of the 26 manufacturing and distribution facilities to produce and sell technetium-99m labeled injections and fluorine-18-FDG injections to meet the increasing market demand in China, which led to both increased construction expenses and increased procurement costs of facilities used by such manufacturing and distribution facilities.

#### **Balances with Related Parties**

We enter into transactions with our related parties from time to time. It is the view of our Directors that each of the related party transactions set out in note 34 to the Accountants' Report in Appendix I to this prospectus were conducted in the ordinary course of business on an arm's length basis and with normal commercial terms between us and the relevant related parties. Our Directors are also of the view that our related party transactions during the Track Record Period would not distort our track record results or make our historical results unreflective of our future performance.

As of December 31, 2015, 2016 and 2017, our balances with related parties were RMB208.4 million, RMB98.3 million and RMB543.5 million, respectively. The following table sets forth the components of our balances with related parties as of the dates indicated:

	As of December 31,		er 31,
	2015	2016	2017
	(RM	B in milli	ions)
Trade and bill receivables	22.0	40.3	62.7
Prepayments, deposits and other receivables	12.2	32.2	29.2
cash and cash equivalent and time deposits	307.2	556.3	545.3
Short-term loan			_
Long-term loan	(60.0)	_	_
Trade payables	(54.6)	(50.2)	(60.8)
Accruals and other payables	(18.4)	(20.3)	(32.9)
Total	208.4	98.3	543.5

In particular, we had borrowings from related parties of RMB60.0 million, RMB460.0 million and nil as of December 31, 2015, 2016 and 2017, respectively. The interest rates which we paid on related party borrowings were generally in line with the prevailing market rates. See "Connected Transactions — Non-exempt Continuing Connected Transactions" for further details.

As of December 31, 2017, we had fully repaid all our loans due to related parties.

After the Global Offering, we expect substantially all of our related party transactions to continue, including financing from CNNCFC based on the framework agreements. See also "Connected Transactions" for our connected transactions under Chapter 14A of the Listing Rules.

# **Provisions for Reclamation Obligation**

Our reclamation obligation primarily represents the accrual for reclamation costs in relation to our tentative reclamation obligation on the disposal of returned radioactive sources and radioactive production and storage facilities imposed by the relevant PRC rules and regulations. The provision is determined based upon our best estimates of the associated costs which may be subject to change in the near term when the reclamation obligation becomes apparent in the future.

In compliance with the relevant PRC rules and regulations, we recognize provisions to cover such obligation related to the returned radioactive sources and our radioactive production and storage facilities and operations. The following table sets forth our provisions as of the dates indicated:

	As of December 31,			
	2015	2016	2017	
	(RM	B in mill	ions)	
Reclamation obligations	145.5	156.7	167.1	

See "Appendix I — Accountants' Report — Significant Accounting Policies" and note 29 to the Accountants' Report in Appendix I to this prospectus for further details.

#### INDEBTEDNESS

As of April 30, 2018, the latest date to determine our indebtedness, our total indebtedness was RMB150.0 million.

The following table sets forth the components of our indebtedness as of the dates indicated:

	As of December 31,		ber 31, As of April 30,			
	2015 2016 2017		15 2016 2017			
				(unaud (RMB in millions)		(unaudited) ons)
Current liabilities						
Short-term borrowings-unsecured	_	480.0	_	_		
Non-current liabilities						
Long-term borrowings	60.0		150.0	150.0		
Total borrowings	60.0	480.0	150.0	150.0		

Our short-term borrowings were incurred primarily for the purposes of financing our working capital. The increase in 2016 was primarily due to our increased working capital demand for the purpose of business expansion. The decrease to nil in 2017 was mainly due to our repayment of such amount.

Our long-term borrowings were incurred for our acquisition of Suzhou Radiation and the construction of new irradiation facilities in Jilin and Sichuan province. Our long-term borrowings decreased to nil as of December 31, 2016, mainly reflecting our reclassification of such amount of long-term borrowings as short-term borrowings according to the maturity profile.

As of December 31, 2015, 2016, 2017, the balance of borrowings from CNNCFC amounted to nil, RMB400.0 million and nil. We paid the borrowings from CNNCFC in full as of December 31, 2017. In 2017, Headway, our subsidiary, has signed a five-year loan agreement with China Development Bank, which was jointly guaranteed by its shareholders with an aggregate amount of RMB200.0 million bearing an interest rate of 5.0% above the PBOC one-to-five-year benchmark lending rate per annum on the first draw-down date. Headway also pledged it's land use right of a parcel of land and bank deposit of RMB18.0 million with respect to such bank loan. Our long-term borrowings amounted to RMB150.0 million as of December 31, 2017 upon receipt under such bank loan. As of April 30, 2018, except the bank loan with China Development Bank disclosed herein, we did not have any other banking facilities or bank loans.

The table below sets forth the maturity profile of our borrowings as of the dates indicated below:

	As of December 31,				As of December 31,		As of December 31,		As of December 31,		As of April 30	
	2015 2016 2017		2015 2016 2017									
				(unaudited)								
		(RMI	B in milli	ons)								
Within one year	_	480.0	_	_								
After one year but within two years	60.0		_	_								
After two year but within five years	_	_	150.0	150.0								
Wholly repayable within two years	60.0	480.0	150.0	150.0								

As of December 31, 2016, all of our borrowings were due within one year. As of December 31, 2017 and April 30, 2018, our bank borrowings with an amount of RMB150.0 million were all due after two years but within five years. During the Track Record Period and up to the Latest Practicable Date, we did not have any material default on our borrowings.

As of April 30, 2018, we had unutilized bank facility of RMB50.0 million under the bank loan borrowed by Headway from China Development Bank. Our Directors have confirmed that there has not been any material increase in our indebtedness since April 30, 2018 to the date of this prospectus. As of the Latest Practicable Date, there was no material restrictive covenant in our indebtedness which could significantly limit our ability to obtain future financing, nor was there any material default on our indebtedness or breach of covenant during the Track Record Period and up to the Latest Practicable Date. As of the Latest Practicable Date, we did not have any definitive plan to issue debts.

Apart from the foregoing, we did not have, as of April 30, 2018, the latest date for liquidity disclosure, any outstanding mortgages, charges, debentures, other issued debt capital, bank overdrafts, loans, liabilities under acceptance or other similar indebtedness, hire purchase and finance lease commitments, any guarantees or other material contingent liabilities.

# **CAPITAL EXPENDITURES**

Our capital expenditures comprise mainly additions to prepaid lease payments, investment properties, property, plant and equipment and intangible assets. In 2015, 2016 and 2017, our capital expenditures were RMB218.3 million, RMB175.9 million and RMB251.2 million, respectively. We fund these expenditures primarily using cash generated from our operating activities and proceeds from bank borrowings and borrowings from CNNCFC.

Our capital expenditures primarily related to our pharmaceuticals and irradiation businesses, which were mainly incurred for the expansion and upgrade of our manufacturing facilities, including purchasing land use rights for sites, constructing facilities and purchasing equipment, development of our imaging diagnosis and therapeutic radiopharmaceuticals and UBT kits and analyzers, as well as constructing irradiation facilities. Capital expenditures incurred by our other segment were mainly used for the purchase of equipment and machinery at our production facilities in China.

We expect to incur capital expenditures of approximately RMB1,182.3 million and RMB632.3 million in 2018 and 2019, respectively. These expected capital expenditures are primarily for the maintenance of our existing facilities or our continued expansion and upgrade plan to increase our production capabilities in anticipation of the expected increase in demand for our current products and

the launch of our new product. See "Future Plans and Use of Proceeds" in this prospectus for further details. We expect to finance our capital expenditures through a combination of internally generated funds, the net proceeds from the Global Offering and borrowings. We may adjust our capital expenditures for any given period according to our development plans or in light of market conditions and other factors we believe to be appropriate.

#### CONTRACTUAL AND OTHER OBLIGATIONS

## **Capital Commitments**

The table below sets forth our capital commitments as of the dates indicated:

	As of December 31,		er 31,
	2015	2016	2017
	(RM	B in mill	lions)
Contracted for	221.8	187.1	106.2
Authorized but not contracted for	205.7	60.0	76.9
Total	427.5	247.1	183.1

We have funded and will continue to fund a substantial portion of our capital commitments by operating cashflow and proceeds from banks borrowings. During the Track Record Period and as of April 30, 2018, our capital commitments were mainly attributable to our construction of two new and modern manufacturing and research and development bases in Hebei and Sichuan provinces for standardized and large-scale production of imaging diagnostic and therapeutic radiopharmaceuticals, the construction of production base in Shenzhen for UBT kits and analyzers the relocation of our clinical medical testing and laboratory services facility to a new site in Beijing and purchase of property, plant and equipment.

## **Operating Lease Commitments**

We lease some of our office properties from third parties under non-cancellable leases. The following table sets forth our future minimum lease payments under non-cancellable operating leases as of the dates indicated:

	As of December 31,		er 31,
	2015	2016	2017
	(RMI	B in mil	lions)
Within one year	3.6	3.9	10.1
After one year but within five years	16.2	16.5	23.8
After five years.	8.4	4.2	
Total	28.2	24.6	33.9

## **OFF-BALANCE SHEET ARRANGEMENTS**

As of December 31, 2017 and the Latest Practicable Date, we did not have any material off-balance sheet arrangements.

## **CONTINGENT LIABILITIES**

We are from time to time involved in legal proceedings and litigation in the ordinary course of business. We believe that they are insignificant to us and have not made any material provision in our consolidated financial information in respect thereof.

As of April 30, 2018, being the latest practicable date to determine our indebtedness, and the Latest Practicable Date, we did not have any material contingent liabilities.

#### FINANCIAL RATIOS

The table below sets forth, as of the dates or for the periods indicated, certain financial ratios:

	As of or for the year ended December 31,			
	2015	2016	2017	
Current ratio (times)(1)	1.5	1.3	1.8	
Quick ratio (times) <sup>(2)</sup>	1.4	1.2	1.7	
Gearing ratio <sup>(3)</sup>	4.4%	32.6%	6.1%	
Return on assets <sup>(4)</sup>	14.1%	13.3%	11.5%	
Return on equity <sup>(5)</sup>	32.5%	30.7%	24.3%	
Gross margin <sup>(6)</sup>	69.1%	70.4%	70.5%	
Net profit margin <sup>(7)</sup>	19.1%	18.4%	17.8%	

- (1) Current ratio equals total current assets divided by total current liabilities as of the same date.
- (2) Quick ratio equals total current assets excluding inventories divided by total current liabilities as of the same date.
- (3) Gearing ratio equals total interest-bearing debts divided by total equity as of the same date.
- (4) Return on assets equals profit for a period divided by the average balance of total assets at the beginning and the end of such period.
- (5) Return on equity represents profit for a period divided by the average balance of total equity at the beginning and the end of such period.
- (6) Gross margin equals gross profit divided by revenue for the period.
- (7) Net profit margin equals profit for the period divided by revenue for the period.

### **Current Ratio**

Our current ratio decreased from 1.5 times as of December 31, 2015, but then decreased to 1.3 times as of December 31, 2016, which increased to 1.8 times as of December 31, 2017. The fluctuations of our current ratio during the Track Record Period were in line with our outstanding balance of short-term borrowings, all of which had been repaid in February 2017.

## **Quick Ratio**

Our quick ratio was 1.4 times, 1.2 times and 1.7 times as of December 31, 2015, 2016 and 2017, respectively. The fluctuations of our quick ratio during the Track Record Period were in line with our outstanding balance of short-term borrowings, all of which had been repaid in February 2017.

### **Gearing Ratio**

Our gearing ratio was 4.4%, 32.6% and 6.1% as of December 31, 2015, 2016 and 2017, respectively. The fluctuations of our gearing ratio during the Track Record Period were in line with our outstanding balance of short-term borrowings, all of which had been repaid in February 2017.

#### **Return on Assets**

We achieved a return on assets of 14.1%, 13.3% and 11.5% in 2015, 2016 and 2017, respectively. The decreases in our return on assets in 2016 and 2017 was mainly due to the relatively faster growth of our current assets, principally cash at bank and on hand and trade and bill receivables, compared to our profit growth during the year.

## **Return on Equity**

We achieved a return on equity of 32.5%, 30.7% and 24.3% in 2015, 2016 and 2017, respectively. Our return on equity decreased in 2016 was mainly due to the increases in retained

earnings. Our return on equity decreased to 24.3% in 2017 was mainly due to the contributions from pre-IPO investment.

## **Gross Margin**

Our gross margin was 69.1%, 70.4% and 70.5% for 2015, 2016 and 2017, respectively. The general increase in our gross margin was primarily due to the increased sales of our pharmaceuticals, which has relatively higher profit margins.

### **Net Profit Margin**

Our net profit margin remained relatively stable being 19.1%, 18.4% and 17.8% for 2015, 2016 and 2017, respectively.

#### FINANCIAL RISKS

We are exposed to various types of financial risk in the ordinary course of business, including credit risk, liquidity risk and interest rate risk. Our overall risk management program focuses on the unpredictability of financial markets and seeks to minimize potential adverse effects on our financial performance. See note 32 to "Appendix I — Accountants' Report" for further details.

#### **Credit Risk**

As of December 31, 2015, 2016 and 2017, our maximum exposure to credit risk is primarily attributable to our trade and bill receivables.

In order to minimize the credit risk, we have policies in place to monitor the exposures to these credit risks on an ongoing basis. Before accepting any new customer requiring credit over a certain amount, we carry out research into their creditability and assess their credit quality and define credit limits for that customer. Our individual credit evaluations focus on the customer's historical payment records, and take into account information specific to the customer as well as pertaining to the economic environment in which the customer operates.

We normally do not require collateral from customers. Therefore, our exposure to credit risk is influenced mainly by the individual characteristics of each customer rather than the industry in which the customer operates. The significant concentrations of credit risk will primarily arise when we have significant exposure to individual customers. We will, however, perform periodic credit evaluations on our customers and monitor the utilization of credit terms by them, while we believe we do not have any significant concentration of credit risk as the trade and bill receivables consist of a large number of customers, spread across diverse industries and geographical areas.

# **Liquidity Risk**

Our policy is to regularly monitor current and expected liquidity requirements to ensure that we maintain sufficient reserves of cash and adequate committed lines of funding from major financial institutions to meet the liquidity requirements in the short- and long-term. Our Directors believe that there is no significant liquidity risk, as we have sufficient monetary capital to fund our operations.

#### **Interest Rate Risk**

Our exposure to the risk of changes in market interest rates arises primarily from our borrowings issued at variable rates. Increases in interest rates would increase interest expenses relating to the borrowings issued at such interest rate and increase the cost of new debt. We regularly review and monitor the mix of fixed and variable rate borrowings in order to manage the portfolio's interest rate risks. In the opinion of our Directors, we have no significant interest rate risk and have not used any interest rate swaps to hedge our exposure to interest rate risk.

#### **DIVIDEND POLICY**

After the completion of the Global Offering, we may distribute dividends in the form of cash or by other means that we consider appropriate. The payment of any dividend by us must be approved by our Shareholders in a Shareholders' meeting. While our Board intends to recommend the declaration of cash dividends to Shareholders in a general meeting, the decision to make a recommendation for the payment of any dividend and the amount of the dividend will depend on, among other things:

- our results of operations and cashflow;
- our financial position;
- general business conditions;
- our future prospects;
- statutory, regulatory and contractual restrictions on the payment of dividends by us; and
- other factors that our Board deems relevant.

Our Board will propose dividends, if any, in Renminbi with respect to the Shares on a per Share basis for Shareholders' approval. We will pay such dividends in Renminbi. Under our Articles of Association, all of our Shareholders have equal rights to dividends and distributions. Holders of the Shares will share proportionately on a per-share basis in all dividends and other distributions.

In accordance with applicable requirements of the PRC laws and our Articles of Association, we may only distribute dividends after we have made an allowance for:

- recovery of losses, if any;
- allocations to the statutory reserve of not less than 10% of our profit after tax;
- allocation to a discretionary revenue fund if approved by our Shareholders and after allocation is made to the statutory reserve fund; and
- payment of dividends.

The allocations to the statutory funds are currently 10% of our net profit, determined in accordance with PRC GAAP. After completion of the Global Offering, dividends may be paid only out of distributable profits as determined under PRC GAAP or IFRS, whichever is lower. Any distributable profits that are not distributed in any given year will be retained and become available for distribution in subsequent years.

During the Track Record Period, we declared cash dividends of RMB172.1 million, RMB186.3 million and RMB175.2 million to our shareholders, respectively, and as of December 31, 2015, 2016 and 2017, we paid cash dividends of nil, RMB319.0 million and RMB177.5 million to our shareholders, respectively. On March 30, 2018, we declared cash dividends of RMB66.5 million to our shareholders. However, our historical dividends may not be indicative of future dividend payments.

#### DISTRIBUTABLE RESERVES

As of December 31, 2017, we had RMB654.7 million in retained profits, as determined under IFRS, available for distribution.

### UNAUDITED PRO FORMA ADJUSTED NET TANGIBLE ASSETS

The following unaudited pro forms statement of adjusted consolidated net tangible assets of our Group prepared in accordance with paragraph 4.29 of the Hong Kong Listing Rules is set out below for illustrative purposes only, to illustrate the effect of the Global Offering on our consolidated net tangible assets attributable to equity shareholders of our Company as of December 31, 2017 as if the Global Offering had taken place on December 31, 2017.

The unaudited pro forma statement of adjusted consolidated net tangible assets of our Group has been prepared for illustrative purposes only and, because of its hypothetical nature, may not give a true picture of our consolidated net tangible assets attributable to equity shareholders of our Company as of December 31, 2017 or any future date following the Global Offering. It is prepared based on the consolidated net tangible assets of our Group attributable to equity shareholders of our Company as of December 31, 2017, derived from the Accountants' Report, the text of which is set out in Appendix I to this prospectus, and adjusted as below. The unaudited pro forma statement of adjusted consolidated net tangible assets does not form part of the Accountants' Report as set forth in Appendix I to this prospectus.

				Unaudited Pro
	Consolidated		<b>Unaudited Pro</b>	Forma Adjusted
	Net Tangible		Forma Adjusted	Consolidated
	Assets of Our		Consolidated	Net Tangible
	Group		Net Tangible	Assets of Our
	Attributable to		Assets of Our	Group
	Equity		Group	Attributable to
	Shareholders of	Estimated Net	Attributable to	Equity
	the Company	Proceeds from	Equity	Shareholders of
	as of December 31,	the Global	Shareholders of	the Company
	2017(1)	Offering <sup>(2)</sup>	the Company	Per Share(3)(4)
		(RMB in	millions)	
Based on an Offer Price of HK\$17.80 per Share	1,837.7	1,107.6	2,945.2	9.21
Based on an Offer Price of HK\$24.20 per Share	1,837.7	1,524.9	3,362.5	10.51

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## NO MATERIAL ADVERSE CHANGE

The Directors have confirmed that there has been no material adverse change in our financial and trading position or prospects since December 31, 2017, being the date to which our latest audited consolidated financial statements have been prepared, to the date of this prospectus.

<sup>(1)</sup> The consolidated net tangible assets attributable to equity shareholders of our Company as of December 31, 2017 is compiled based on the consolidated statements of financial position included in the Accountants' Report set out in Appendix I to this Prospectus, which is based on the consolidated total equity attributable to equity shareholders of our Company as of December 31, 2017 of RMB1,868,944,000 after deducting goodwill of RMB5,670,000 and intangible assets of RMB32,176,000, and adjusting the share of intangible assets attributable to non-controlling interests of RMB6,552,000.

<sup>(2)</sup> The estimated net proceeds from the Global Offering are based on the indicative Offer Prices of HK\$17.80 and HK\$24.20 per Offer Share, after deduction of the underwriting fees and other related expenses payable by our Company, and 79,968,700 shares expected to be issued under the Global Offering, assuming the over-allotment option is not exercised. The estimated net proceeds from the Global Offering have been converted to Renminbi at the PBOC rate of HK\$1.0000 to RMB0.8359 prevailing on December 31, 2017.

<sup>(3)</sup> The unaudited pro forma adjusted consolidated net tangible assets attributable to equity shareholders of our Company per Offer Share is arrived at after the adjustments referred to in the preceding paragraphs and on the basis of 319,874,800 Shares in total, taking into account that 239,906,100 Shares is issue as of December 31, 2017 and 79,968,700 Shares to be issued pursuant to the Global Offering and the respective offer prices of HK\$17.80 and HK\$24.20 per Offer Share, but do not take into account any Shares which may be issued upon the exercise of the Over-allotment Option.

<sup>(4)</sup> The unaudited pro forma adjusted net tangible assets attributable to equity shareholders of our Company per Offer Share amounts in RMB are converted to Hong Kong dollar with the PBOC rate of RMB0.8359 to HK\$1.0000 prevailing on December 31, 2017.

# DISCLOSURE REQUIRED UNDER THE HONG KONG LISTING RULES

We confirm that, as of the Latest Practicable Date, we are not aware of any circumstances that would give rise to a disclosure under Rules 13.13 to 13.19 of Chapter 13 of the Hong Kong Listing Rules.

### LISTING EXPENSES

Listing expenses represent professional fees, underwriting commissions and other fees incurred in connection with the Global Offering. We estimate that our listing expenses will be approximately RMB87.6 million (assuming an Offer Price of HK\$21.0 per Offer Share, being the mid-point of the stated Offer Price range, and assuming the Over-allotment Option is not exercised). During the Track Record Period, RMB1.9 million have been recognized in our consolidated statements of profit or loss. Of the remaining RMB85.7 million, approximately RMB8.6 million will be recognized in our consolidated statements of profit or loss in 2018 and approximately RMB77.1 million will be capitalized. Our Directors do not expect such expenses to materially impact our results of operations in 2018.

## FUTURE PLANS AND USE OF PROCEEDS

#### **FUTURE PLANS**

See "Business — Our Strategies" in this prospectus for a detailed description of our future plans.

## **USE OF PROCEEDS**

Assuming an Offer Price of HK\$21.00 per H Share, being the mid-point of the indicative Offer Price range stated in this prospectus, and assuming the Over-allotment Option is not exercised, we currently intend to use such net proceeds from the Global Offering as follows:

- approximately 41.7% of the net proceeds, or approximately HK\$656.2 million, is expected to be used for investment in two imaging diagnostic and therapeutic radiopharmaceuticals manufacturing and research and development bases in Xianghe, Hebei province and Chengdu, Sichuan province to enhance our manufacturing and research and development capabilities. See "Business Expansion Plan" for further details;
- approximately 4.7% of the net proceeds, or approximately HK\$74.0 million, is expected to be used for establishment of four manufacturing and distribution subsidiaries to primarily produce and distribute technetium-99m-labeled injections and fluorine-18-FDG injection in China. See "Business Expansion Plan" for further details;
- approximately 5.9% of the net proceeds, or approximately HK\$92.8 million, is expected to be used for the establishment of new production facilities in Shenzhen, Guangdong province and Tongcheng, Anhui province to expand our manufacturing capacity of UBT kits and analyzers. See "Business Expansion Plan" for further details;
- approximately 17.7% of the net proceeds, or approximately HK\$278.5 million, is expected
  to be used for investment in the research and development of various imaging diagnostic
  and therapeutic radiopharmaceuticals, raw materials of radioactive source product,
  medical radioisotopes, and UBT products and related raw materials. See "Business —
  Research and Development" for further details;
- approximately 20.0% of the net proceeds, or approximately HK\$314.7 million, is expected
  to be used for selective acquisitions. Please see "Business Our Strategies" for the
  selection criteria of acquisition targets;
- approximately 10.0% of the net proceeds, or approximately HK\$157.4 million, is expected to be used for working capital and general corporate purposes.

We estimate that we will receive from the Global Offering net proceeds, after deducting the underwriting fees and estimated expenses payable by us in connection with the Global Offering, in the amount as set forth in the following table:

	Based on the low-end of the proposed Offer Price range of HK\$17.80	Based on the mid-end of the proposed Offer Price range of HK\$21.00	Based on the high-end of the proposed Offer Price range of HK\$24.20
Assuming the Over-allotment Option is not exercised	Approximately HK\$1,317.7 million	Approximately HK\$1,573.6 million	Approximately HK\$1,829.5
Assuming the Over-allotment	Approximately HK\$1,531.3	Approximately HK\$1,825.5	Approximately HK\$2,119.8
Option is exercised in full	million	million	million

To the extent that the net proceeds from the Global Offering (including the net proceeds from the exercise of the Over-allotment Option) are either more or less than expected, we will adjust our allocation of the net proceeds for the above purposes on a pro rata basis.

# FUTURE PLANS AND USE OF PROCEEDS

To the extent that the net proceeds from the Global Offering are not immediately used for the above purposes, we currently intend to deposit such net proceeds into short-term interest-bearing accounts, such as savings accounts or money market funds, with licensed commercial banks or other authorized financial institutions.

### UNDERWRITING

#### HONG KONG UNDERWRITERS

China International Capital Corporation Hong Kong Securities Limited CLSA Limited
ABCI Securities Company Limited
China Securities (International) Corporate Finance Company Limited

### **UNDERWRITING**

This prospectus is published solely in connection with the Hong Kong Public Offering. The Hong Kong Public Offering is fully underwritten by the Hong Kong Underwriters on a conditional basis. The International Offering is expected to be fully underwritten by the International Underwriters. If, for any reason, the Offer Price is not agreed between the Company and the Joint Global Coordinators (on behalf of the Underwriters), the Global Offering will not proceed and will lapse. The Global Offering comprises the Hong Kong Public Offering of initially 7,997,200 Hong Kong Offer Shares and the International Offering of initially 71,971,500 International Offer Shares, subject in each case, to reallocation on the basis as described in the section headed "Structure of the Global Offering" in this prospectus as well as to the Over-allotment Option in the case of the International Offering.

#### UNDERWRITING ARRANGEMENTS AND EXPENSES

## **Hong Kong Public Offering**

# Hong Kong Underwriting Agreement

The Hong Kong Underwriting Agreement was entered into on Thursday, June 21, 2018. Pursuant to the Hong Kong Underwriting Agreement, the Company is offering the Hong Kong Offer Shares for subscription by the public in Hong Kong on the terms and conditions set out in this prospectus, the Application Forms and the Hong Kong Underwriting Agreement at the Offer Price.

Subject to (i) the Listing Committee granting approval for the listing of, and permission to deal in, the H Shares to be issued pursuant to the Global Offering on the Main Board of the Stock Exchange and (ii) certain other conditions set out in the Hong Kong Underwriting Agreement, the Hong Kong Underwriters have agreed severally to subscribe or procure subscribers for their respective applicable proportions of the Hong Kong Offer Shares being offered which are not taken up under the Hong Kong Public Offering on the terms and conditions set out in this prospectus, the Application Forms and the Hong Kong Underwriting Agreement.

The Hong Kong Underwriting Agreement is conditional on the International Underwriting Agreement having been signed and becoming unconditional and not having been terminated in accordance with its terms.

## Grounds for termination

The Sole Representative (for itself and on behalf of the Joint Bookrunners and the Hong Kong Underwriters) may, in its sole and absolute discretion, be entitled by written notice to the Company, to terminate the Hong Kong Underwriting Agreement with immediate effect if, at any time prior to 8:00 a.m. on the Listing Date:

- (i) there shall develop, occur, exist or come into effect:
  - a. any local, national, regional or international event, series of events or circumstance in the nature of force majeure (including, without limitation, any acts of government,

### **UNDERWRITING**

declaration or acts of a national or international emergency or war, calamity, crisis, outbreak or escalation of diseases or epidemics including, but not limited to, SARS, swine or avian flu, H5N1, H1N1, H1N7, H7N9 and such related/mutated forms, pandemic, labor disputes, strikes, lock-outs, fire, explosion, flooding, civil commotion, riots, public disorder, outbreak or escalation of hostilities (whether or not war is or has been declared), acts of God, acts of terrorism (whether or not responsibility has been claimed), earthquake, or volcanic eruption in or directly or indirectly affecting Hong Kong, the PRC, Singapore, the United States, the United Kingdom, the European Union (or any member thereof), Japan (each a "Relevant Jurisdiction"), or any other jurisdiction relevant to the Group; or

- b. any new law or regulation or any change or development involving a prospective change in existing laws or regulations, or any change or development involving a prospective change in the interpretation or application thereof by any court or other competent authority in or affecting any Relevant Jurisdiction; or
- c. any change or development involving a prospective change or development, or any event or series of events resulting or likely to result in or representing any change or development, or any prospective change or development, in local, national, regional or international financial, economic, political, military, industrial, legal, fiscal, regulatory, currency, credit or market matters or conditions or any monetary or trading settlement system (including, without limitation, any change in the stock and bond markets, money and foreign exchange markets, the interbank markets and credit markets, or a change in the system under which the value of the Hong Kong dollar is linked to that of the United States dollar or a revaluation of the Hong Kong dollar or Renminbi against any foreign currencies or a change in any other currency exchange rates) in or affecting any Relevant Jurisdiction; or
- d. any general moratorium on commercial banking activities in any Relevant Jurisdiction declared by the relevant authorities, or any disruption in commercial banking or foreign exchange trading or securities settlement or clearance services, procedures or matters in any Relevant Jurisdiction; or
- e. the imposition of any moratorium, suspension or restriction (including, without limitation, any imposition of or requirement for any minimum or maximum price limit or price range) in or on trading in securities generally on the Stock Exchange, the New York Stock Exchange, the NASDAQ Global Market, the London Stock Exchange, the Singapore Stock Exchange, the Tokyo Stock Exchange, the Shanghai Stock Exchange or the Shenzhen Stock Exchange; or
- f. the imposition of economic sanctions, in whatever form, directly or indirectly, by, or for, any Relevant Jurisdiction and/or any other jurisdiction relevant to the Group; or
- g. any change, development or event involving a prospective change in taxation or exchange control, currency exchange rates or foreign investment regulations in any Relevant Jurisdiction adversely affecting an investment in the H Shares; or
- h. any Director or Supervisor being charged with an indictable offence or prohibited by operation of law, or otherwise disqualified from taking part in the management of a company or the commencement by any governmental, political, regulatory body of any investigation or action, or announcing an intention to investigate or take other action, against any Director or Supervisor; or

- i. any governmental authority or a political or regulatory body or organization in any Relevant Jurisdiction commencing any investigation or take other action, or announcing an intention to investigate or take other action, against any member of the Group; or
- j. any litigation or claim being threatened or instigated against any member of the Group which litigation or claim is expected to have a material adverse effect on the Group or its business taken as a whole; or
- k. any contravention by any member of the Group or any Director or Supervisor of the Companies Ordinance, the Companies (Winding Up and Miscellaneous Provisions) Ordinance, the PRC Company Law, the Listing Rules or other applicable law; or
- 1. a prohibition on the Company for whatever reason from offering, allotting, issuing or selling the H Shares (including the Over-allotment Option Shares) pursuant to the terms of the Global Offering; or
- m. non-compliance of this prospectus or the Application Forms (or any other documents used in connection with the contemplated offer and sale of the H Shares) or any aspect of the Global Offering with the Listing Rules or any other applicable law; or
- n. except with the prior written consent of the Sole Representative, the issue or requirement to issue by the Company of any supplement or amendment to this prospectus or other documents in connection with the offer and sale of the H Shares pursuant to the Companies (Winding Up and Miscellaneous Provisions) Ordinance or the Listing Rules or any requirement or request of the Stock Exchange and/or the SFC; or
- o. an order or a petition is presented for the winding-up or liquidation of any member of the Group or any member of the Group makes any composition or arrangement with its creditors or enters into a scheme of arrangement or any resolution is passed for the winding-up of any member of the Group or a provisional liquidator, receiver or manager is appointed over all or part of the assets or undertaking of any member of the Group or anything analogous thereto, occurs in respect of any member of the Group; or

which, in any such case individually or in the aggregate, in the sole and absolute opinion of the Sole Representative (for itself and on behalf of the Joint Bookrunners and Hong Kong Underwriters) (1) is or will or is reasonably likely to have a material adverse effect on, or a material and prejudicial effect on, the assets, liabilities, business, general affairs, management, prospects, shareholders' equity, profits, losses, results of operations, position or condition (financial or otherwise), or performance of the Group as a whole; or (2) has or will have or is reasonably likely to have a material adverse effect on the success of the Global Offering or the level of application under the Hong Kong Public Offering or the Global Offering to be performed or implemented as envisaged; or (3) makes or will make it or may reasonably be expected to make it inadvisable or inexpedient or impracticable for any part of the Hong Kong Underwriting Agreement, the Hong Kong Public Offering and/ or the Global Offering to proceed or the delivery of the Offered Shares to be performed or implemented or proceed as envisaged or to market the Global Offering; or (4) has or will have or may reasonably be expected to have the effect of making any part of the Hong Kong Underwriting Agreement (including underwriting the Hong Kong Public Offering and/or the Global Offering) incapable of performance in accordance with its terms or

- preventing the processing of applications and/or payments pursuant to the Global Offering or pursuant to the underwriting thereof; or
- (ii) there comes to the notice of the Sole Sponsor, the Sole Representative, the Joint Bookrunners, the Joint Global Coordinators, or any of the Hong Kong Underwriters:
  - a. any statement contained in any of this prospectus, the Application Forms, the application proof and the post hearing information pack, as amended or supplemented thereto, and/or any notices, announcements, advertisements, communications or other documents issued or used by or on behalf of the Company in connection with the Hong Kong Public Offering (including any supplement or amendment thereto) was, when it was issued, or has become, untrue, incomplete, incorrect, inaccurate or misleading in any material respect, or that any material forecast, estimate, expression of opinion, intention or expectation expressed or contained in any of this prospectus, the Application Forms, the application proof and the post hearing information pack, as amended or supplemented thereto, and/or any notices, announcements, advertisements, communications or other documents so issued or used by or on behalf of the Company in connection with the Hong Kong Public Offering is not fair and honest and made on reasonable grounds or where appropriate, based on reasonable assumptions with reference to the facts and circumstances then subsisting; or
  - b. any matter or event arising or has been discovered rendering or there coming to the notice of any of the Sole Representative, the Joint Global Coordinators, the Joint Bookrunners or the Hong Kong Underwriters that, not having been disclosed in this prospectus, constitute a material omission therefrom or showing any of the representations, warranties and undertakings given by the Company in the Hong Kong Underwriting Agreement or the International Underwriting Agreement, as applicable, is (or would when repeated be) untrue or inaccurate in any material respect or misleading in any respect or there has been a breach of any of the representations, warranties, undertakings or provisions of either this Agreement or the International Underwriting Agreement by the Company in any material respect; or
  - c. any matter, event, act or omission which gives or is likely to give rise to any liability of the Company pursuant to the indemnities given by the Company under the Hong Kong Underwriting Agreement if such liability may reasonably be expected to materially and adversely affect the business or financial or trading position of the Group as a whole; or
  - d. any adverse change or development involving a prospective material adverse change or development in the assets, liabilities, business, general affairs, management, prospects, shareholders' equity, profits, losses, properties, results of operations, position or condition (financial or otherwise) of the Group as a whole. The term "adverse change or development" shall include any litigation or claim of any third party being threatened or instigated against any member of the Group and which may reasonably be expected to materially and adversely affect the business or financial or trading position of the Group as a whole; or
  - e. any of the experts (other than the Sole Sponsor) specified in this prospectus has withdrawn its respective consent to the issue of this prospectus with the inclusion of its reports, letters and/or legal opinions (as the case may be) and references to its name included in the form and context in which it respectively appears; or

- f. the Company has withdrawn this prospectus, the Application Forms (and/or any other documents issued or used in connection with the Global Offering) or the Global Offering; or
- g. Admission is refused or not granted, other than subject to customary conditions, on or before the Listing Date, or if granted, the Admission is subsequently withdrawn, cancelled, qualified (other than by customary conditions), revoked or withheld; or

then the Sole Representative may (for itself and on behalf of the Joint Bookrunners and the Hong Kong Underwriters), in their sole and absolute discretion and upon giving notice in writing to the Company, terminate the Hong Kong Underwriting Agreement with immediate effect.

# Undertakings to the Stock Exchange pursuant to the Listing Rules

(A) Undertakings by the Company

Pursuant to Rule 10.08 of the Listing Rules, the Company has undertaken to the Stock Exchange that it will not, at any time within six months from the Listing Date, issue any Shares or other securities convertible into equity securities of the Company (whether or not of a class already listed) or enter into any agreement or arrangement to issue any Shares or such other securities (whether or not such issue of Shares or such other securities will be completed within six months from the commencement of dealing), except pursuant to the Global Offering or under any of the circumstances provided under Rule 10.08 of the Listing Rules.

# (B) Undertakings by the Controlling Shareholder

Pursuant to Rule 10.07 of the Listing Rules, the Controlling Shareholder has undertaken to the Stock Exchange and to the Company that it will not (and will procure that the relevant registered holder(s) will not):

- (i) in the period commencing on the date by reference to which disclosure of its shareholding in the Company is made in this prospectus and ending on the date which is six months from the date on which dealings in the H Shares commence on the Stock Exchange ("First Six-Month Period"), dispose of, or enter into any agreement to dispose of or otherwise create any options, rights, interests or encumbrances in respect of, any of the Shares directly or indirectly beneficially owned by it; and
- (ii) in the period of six months commencing on the date on which the First Six-Month Period expires (the "Second Six-Month Period"), dispose of, or enter into any agreement to dispose of or otherwise create any options, rights, interests or encumbrances in respect of, any of the Shares directly or indirectly beneficially owned by it if, immediately following such disposal or upon the exercise or enforcement of such options, rights, interests or encumbrances, it would cease to be the Controlling Shareholder.

Pursuant to Note (3) to Rule 10.07(2) of the Listing Rules, the Controlling Shareholder has undertaken to the Stock Exchange and to the Company that, within the period commencing on the date by reference to which disclosure of its shareholding in the Company is made in this prospectus and ending on the date which is 12 months from the date on which dealings in the H Shares commence on the Stock Exchange, it will:

(i) when it pledges and/or charges any Shares or other securities of the Company beneficially owned by it directly or indirectly in favor of an authorized institution (as defined in the

Banking Ordinance (Chapter 155 of the Laws of Hong Kong) for a bona fide commercial loan) pursuant to Note (2) to Rule 10.07(2) of the Listing Rules, immediately inform the Company of such pledge or charge together with the number of Shares so pledged and/or charged; and

(ii) when it receives indications, either verbal or written, from the pledgee and/or chargee that any of the pledged and/or charged Shares will be disposed of, immediately inform the Company of such indications.

We will also, as soon as we have been informed of the above matters (if any) by the Controlling Shareholder, inform the Stock Exchange and disclose such matters as soon as possible by way of an announcement to be published as required under the Listing Rules.

# Undertakings pursuant to the Hong Kong Underwriting Agreement

Undertakings by the Company

The Company has undertaken to each of the Sole Sponsor, the Sole Representative, the Joint Global Coordinators, the Joint Bookrunners, the Joint Lead Managers, the Hong Kong Underwriters that, except pursuant to the Global Offering (including the H Shares to be issued pursuant to Overallotment Option) not to, at any time during the period commencing on the date of the Hong Kong Underwriting Agreement and ending on, and including, the date on which the First Six-Month Period expires, without the prior written consent of the Sole Sponsor and the Sole Representative (for itself and on behalf of the Joint Bookrunners and the Hong Kong Underwriters) and unless in compliance with the requirements of the Listing Rules:

- (a) allot, issue, sell, accept subscription for, offer to allot, issue or sell, contract or agree to allot, issue or sell, assign, mortgage, charge, pledge, assign, hypothecate, lend, grant or sell any option, warrant, contract or right to subscribe for or purchase, grant or purchase any option, warrant, contract or right to allot, issue or sell, or otherwise transfer or dispose of, or create an encumbrance over, or agree to transfer or dispose of or create a mortgage, charge, pledge, lien, option, restriction, right of first refusal, right of pre-emption, claim, defect, right, interest or preference granted to any third party, or any other encumbrance or equity security interest of any kind over, either directly or indirectly, conditionally or unconditionally, or repurchase, any legal or beneficial interest in the equity securities of the Company, or any interest in any of the foregoing (including, without limitations, any securities convertible into or exchangeable or exercisable for or that represent the right to receive, or any warrants or other rights to purchase any shares or securities convertible into equity securities of the Company), or deposit any H Shares or other securities of the Company with a depositary in connection with the issue of depositary receipts; or
- (b) enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of such equity securities of the Company or any interest therein; or
- (c) enter into any transaction with the same economic effect as any transaction specified in paragraph (a) or (b) above; or
- (d) offer to or agree to do, or announce or publicly disclose any intention to effect, any transaction specified in paragraph (a), (b) or (c) above,

in each case, whether any of the transactions specified in paragraph (a), (b) or (c) above is to be settled by delivery of such equity securities of the Company, or in cash or otherwise (whether or not the allotment or issue of such equity securities of the Company will be completed within the First Six-Month Period).

If, at any time during the Second Six-Month Period, the Company enters into any of the transactions specified in paragraph (a), (b) or (c) above or offers to or agrees to do, or announces or publicly discloses any intention to effect any such transaction, the Company will take all reasonable steps to ensure that any such transaction, offer, agreement or announcement will not, and no other act of the Company will, create a disorderly or false market in the equity securities of the Company.

# **International Offering**

# International Underwriting Agreement

In connection with the International Offering, the Company expects to enter into the International Underwriting Agreement with the Joint Global Coordinators, the Sole Sponsor, the Joint Bookrunners and the International Underwriters. Under the International Underwriting Agreement and subject to the Over-allotment Option, the International Underwriters would, subject to certain conditions set out therein, severally agree to subscribe for, or procure subscribers for, their respective applicable proportions of the International Offer Shares initially being offered pursuant to the International Offering (excluding, for the avoidance of doubt, the Offer Shares which are subject to the Over-allotment Option). It is expected that the Company will grant to the International Underwriters the Over-allotment Option, exercisable by the Sole Representative (on behalf of the International Underwriters) at any time from the date of the International Underwriting Agreement until the 30th day from the last day for lodging applications under the Hong Kong Public Offering, to require the Company to issue and allot up to an aggregate of 11,995,300 additional H Shares, representing approximately 15% of the initial Offer Shares, at the Offer Price, among other things, to cover overallocations in the International Offering, if any.

It is expected that the International Underwriting Agreement may be terminated on similar grounds as the Hong Kong Underwriting Agreement. Potential investors are reminded that in the event that the International Underwriting Agreement is not entered into, the Global Offering will not proceed and will lapse. Please see the section headed "Structure of the Global Offering — The International Offering" in this prospectus for further details.

# **Indemnity**

The Company has agreed to indemnify among others, the Sole Representative, the Joint Global Coordinators, the Sole Sponsor, the Joint Bookrunners and the Hong Kong Underwriters for certain losses which they may suffer or incur, including liabilities under the US Securities Act, losses arising from their performance of their obligations under the Hong Kong Underwriting Agreement and any breach by the Company of the Hong Kong Underwriting Agreement. It is expected that we will also indemnify the International Underwriters for certain losses which they may suffer.

# **Commissions and Expenses**

The Sole Representative (on behalf of the Hong Kong Underwriters) will receive an aggregate underwriting commission of 2.45% of the aggregate Offer Price payable for the Hong Kong Offer

Shares initially offered under the Hong Kong Public Offering, out of which they will pay any sub-underwriting commission.

The Sole Representative (on behalf of the Hong Kong Underwriters) may receive a discretionary incentive fee of up to 1% of the aggregate Offer Price payable for the Hong Kong Offer Shares.

For any unsubscribed Hong Kong Offer Shares reallocated to the International Offering, the underwriting commission will not be paid to the Hong Kong Underwriters but will instead be paid, at the rate applicable to the International Offering, to the Sole Representative and the relevant International Underwriters.

Assuming the Over-allotment Option is not exercised at all and based on an Offer Price of HK\$21.0, being the mid-point of the Offer Price range of HK\$17.80 to HK\$24.20 per Offer Share, the fees and commissions in connection with the Hong Kong Public Offering and the International Offering, together with the Stock Exchange trading fee, the SFC transaction levy, legal and other professional fees, printing and other expenses relating to the Global Offering, are estimated to amount to approximately RMB74.27 million in aggregate. Such commissions, the Stock Exchange trading fee and the SFC transaction levy are payable and borne by the Company. The fees and expenses of our professional advisors and service providers engaged by us in relation to the Global Offering will be borne by us.

# Hong Kong Underwriters' Interests in the Company

Save for their respective obligations under the Underwriting Agreements and saved as otherwise disclosed in this prospectus, as of the Latest Practicable Date, none of the Underwriters was interested legally or beneficially, directly or indirectly, in any shares or other securities of the any member of the Group or had any right or option (whether legally enforceable or not) to subscribe for or purchase, or to nominate persons to subscribe for or purchase, any shares or other securities of any member of the Group in the Global Offering.

Following the completion of the Global Offering, the Underwriters and their affiliated companies may hold a certain portion of the H Shares as a result of fulfilling their respective obligations under the Underwriting Agreements.

# **Restrictions on the Offer Shares**

No action has been taken to permit a public offering of the Offer Shares, other than in Hong Kong, or the distribution of this prospectus in any jurisdiction other than in Hong Kong. Accordingly, this prospectus may not be used for the purpose of, and does not constitute, an offer or invitation in any jurisdiction or in any circumstances in which such an offer or invitation is not authorized or to any person to whom it is unlawful to make an offer or invitation. In particular, the Offer Shares have not been offered or sold, and will not be offered or sold, directly or indirectly, in the PRC.

# INDEPENDENCE OF THE SOLE SPONSOR

The Sole Sponsor satisfies the independence criteria applicable to sponsors set out in Rule 3A.07 of the Listing Rules.

#### **ACTIVITIES BY SYNDICATE MEMBERS**

The underwriters of the Hong Kong Public Offering and the International Offering (together, the "**Syndicate Members**") and their affiliates may each individually undertake a variety of activities (as further described below) which do not form part of the underwriting or stabilizing process.

The Syndicate Members and their affiliates are diversified financial institutions with relationships in countries around the world. These entities engage in a wide range of commercial and investment banking, brokerage, funds management, trading, hedging, investing and other activities for their own account and for the account of others. In the ordinary course of their various business activities, the Syndicate Members and their respective affiliates may purchase, sell or hold a broad array of investments and actively trade securities, derivatives, loans, commodities, currencies, credit default swaps and other financial instruments for their own account and for the accounts of their customers. Such investment and trading activities may involve or relate to assets, securities and/or instruments of the Company and/or persons and entities with relationships with the Company and may also include swaps and other financial instruments entered into for hedging purposes in connection with the Group's loans and other debt.

In relation to the H Shares, the activities of the Syndicate Members and their affiliates could include acting as agent for buyers and sellers of the H Shares, entering into transactions with those buyers and sellers in a principal capacity, including as a lender to initial purchases of the H Shares (which financing may be secured by the H Shares) in the Global Offering, proprietary trading in the H Shares, and entering into over the counter or listed derivative transactions or listed and unlisted securities transactions (including issuing securities such as derivative warrants listed on a stock exchange) which have as their underlying assets, assets including the H Shares. Those activities may require hedging activity by those entities involving, directly or indirectly, the buying and selling of the H Shares, which may have a negative impact on the trading price of the H Shares. All such activities could occur in Hong Kong and elsewhere in the world and may result in the Syndicate Members and their affiliates holding long and/or short positions in the H Shares, in baskets of securities or indices including the H Shares, in units of funds that may purchase the H Shares, or in derivatives related to any of the foregoing.

In relation to issues by Syndicate Members or their affiliates of any listed securities having the H Shares as their underlying securities, whether on the Stock Exchange or on any other stock exchange, the rules of the stock exchange may require the issuer of those securities (or one of its affiliates or agents) to act as a market maker or liquidity provider in the security, and this will also result in hedging activity in the H Shares in most cases.

All such activities may occur both during and after the end of the stabilizing period described in the section headed "Structure of the Global Offering" in this prospectus. Such activities may affect the market price or value of the H Shares, the liquidity or trading volume in the H Shares and the volatility of the price of the H Shares, and the extent to which this occurs from day to day cannot be estimated.

It should be noted that when engaging in any of these activities, the Syndicate Members will be subject to certain restrictions, including the following:

(a) the Syndicate Members (other than the Stabilizing Manager or any person acting for it) must not, in connection with the distribution of the Offer Shares, effect any transactions (including issuing or entering into any option or other derivative transactions relating to

- the Offer Shares), whether in the open market or otherwise, with a view to stabilizing or maintaining the market price of any of the Offer Shares at levels other than those which might otherwise prevail in the open market; and
- (b) the Syndicate Members must comply with all applicable laws and regulations, including the market misconduct provisions of the SFO, including the provisions prohibiting insider dealing, false trading, price rigging and stock market manipulation.

Certain of the Syndicate Members or their respective affiliates have provided from time to time, and expect to provide in the future, investment banking and other services to the Company and its affiliates for which such Syndicate Members or their respective affiliates have received or will receive customary fees and commissions.

# OVER-ALLOTMENT OPTION AND STABILIZATION

Details of the arrangements relating to the Over-allotment Option and stabilization are set forth in the section headed "Structure of the Global Offering" in this prospectus.

#### THE GLOBAL OFFERING

This prospectus is published in connection with the Hong Kong Public Offering as part of the Global Offering. The Global Offering of 79,968,700 H Shares comprises:

- (i) the Hong Kong Public Offering of initially 7,997,200 H Shares (subject to reallocation) for subscription by the public in Hong Kong as described in the paragraph headed "The Hong Kong Public Offering" below; and
- (ii) the International Offering of initially 71,971,500 H Shares (subject to reallocation and the Over-allotment Option), outside the United States in offshore transactions in accordance with Regulation S, as described in the paragraph headed "The International Offering" below.

The 79,968,700 H Shares being offered by the Company under the Global Offering will represent approximately 25% of the Company's enlarged share capital immediately after completion of the Global Offering, assuming the Over-allotment Option is not exercised. If the Over-allotment Option is exercised in full, the Offer Shares will represent approximately 27.71% of the issued share capital of the Company immediately following the completion of the Global Offering.

Investors may apply for the Hong Kong Offer Shares under the Hong Kong Public Offering or apply for or indicate an interest in the International Offer Shares under the International Offering, but may not do both.

The Company has obtained the requisite PRC governmental approvals, including the approval of the CSRC, in respect of the Global Offering.

References in this prospectus to applications, Application Forms, application monies or the procedure for applications relate solely to the Hong Kong Public Offering.

# THE HONG KONG PUBLIC OFFERING

# Number of Offer Shares initially offered

The Company is initially offering 7,997,200 H Shares for subscription by the public in Hong Kong at the Offer Price, representing approximately 10% of the total number of Offer Shares initially available under the Global Offering subject to the reallocation of Offer Shares between the International Offering and the Hong Kong Public Offering, and assuming that the Over-allotment Option is not exercised.

The Hong Kong Public Offering is open to the public in Hong Kong as well as to institutional and professional investors. Professional investors generally include brokers, dealers, companies (including fund managers) whose ordinary business involves dealing in shares and other securities and corporate entities that regularly invest in shares and other securities.

Completion of the Hong Kong Public Offering is subject to the conditions set out in the paragraph headed "Conditions of the Global Offering" below.

#### Allocation

Allocation of the Offer Shares to investors under the Hong Kong Public Offering will be based solely on the level of valid applications received under the Hong Kong Public Offering. The basis of

allocation may vary, depending on the number of Hong Kong Offer Shares validly applied for by applicants. Such allocation could, where appropriate, consist of balloting, which could mean that some applicants may receive a higher allocation than others who have applied for the same number of Hong Kong Offer Shares, and those applicants who are not successful in the ballot may not receive any Hong Kong Offer Shares.

For allocation purposes only, the total number of Hong Kong Offer Shares available under the Hong Kong Public Offering (after taking into account any reallocation referred to below) will be divided equally (to the nearest board lot) into two pools: pool A and pool B. The Hong Kong Offer Shares in pool A will consist of 3,998,600 Offer Shares (being 50% of the total number of Offer Shares initially available under the Hong Kong Public Offering) and will be allocated on an equitable basis to applicants who have applied for Hong Kong Offer Shares with an aggregate price of HK\$5 million or less (excluding the brokerage, the SFC transaction levy and the Stock Exchange trading fee payable). The Hong Kong Offer Shares in pool B will consist of 3,998,600 Offer Shares (being 50% of the total number of Offer shares initially available under the Hong Kong Public Offering) will be allocated on an equitable basis to applicants who have applied for Hong Kong Offer Shares with an aggregate price of more than HK\$5 million and up to the value of pool B (excluding the brokerage, the SFC transaction levy and the Stock Exchange trading fee payable).

Investors should be aware that applications in pool A and applications in pool B may receive different allocation ratios. If any Hong Kong Offer Shares in one (but not both) of the pools are unsubscribed, such unsubscribed Hong Kong Offer Shares will be transferred to the other pool to satisfy demand in that other pool and be allocated accordingly. For the purpose of the immediately preceding paragraph only, the "subscription price" for Hong Kong Offer Shares means the price payable on application therefor (without regard to the Offer Price as finally determined). Applicants can only receive an allocation of Hong Kong Offer Shares from either pool A or pool B and not from both pools. Multiple or suspected multiple applications under the Hong Kong Public Offering and any application for more than 3,998,600 Offer Shares, being the number of Hong Kong Offer Shares initially allocated to each pool, are liable to be rejected.

# Reallocation

The allocation of the Offer Shares between the Hong Kong Public Offering and the International Offering is subject to adjustment. If the number of Shares validly applied for under the Hong Kong Public Offering represents 15 times or more but less than 50 times the number of Shares initially available for subscription under the Hong Kong Public Offering, then Offer Shares will be reallocated to the Hong Kong Public Offering from the International Offering, so that the total number of Offer Shares available under the Hong Kong Public Offering will be 23,990,800 Offer Shares, representing approximately 30% of the Offer Shares initially available under the Global Offering. If the number of Offer Shares validly applied for under the Hong Kong Public Offering represents 50 times or more but less than 100 times the number of Offer Shares initially available for subscription under the Hong Kong Public Offering, then the number of Offer Shares to be reallocated to the Hong Kong Public Offering from the International Offering will be increased so that the total number of Offer Shares available under the Hong Kong Public Offering will be 31,987,600 H Shares, representing approximately 40% of the Offer Shares initially available under the Global Offering. If the number of Shares validly applied for under the Hong Kong Public Offering represents 100 times or more the number of Shares initially available for subscription under the Hong Kong Public Offering, then the number of Offer Shares to be reallocated to the Hong Kong Public Offering from the

International Offering will be increased, so that the total number of Offer Shares available under the Hong Kong Public Offering will be 39,984,400 Offer Shares, representing approximately 50% of the Offer Shares initially available under the Global Offering. In each such case, the additional Shares reallocated to the Hong Kong Public Offering will be allocated equally (subject to adjustment of odd lot size) between pool A and pool B and the number of Offer Shares allocated to the International Offering will be correspondingly reduced, in such manner as the Sole Representative deems appropriate.

In addition, if the Hong Kong Public Offering is not fully subscribed, the Sole Representative will have the discretion (but shall not be under any obligation) to reallocate to the International Offering all or any unsubscribed Hong Kong Offer Shares in such proportion and amounts as they deem appropriate. Conversely, if the International Offer Shares are undersubscribed under the Global Offering and the Hong Kong Offer Shares are fully subscribed or oversubscribed irrespective of the number of times of the initial number of the Hong Kong Offer Shares, then up to 7,997,200 Offer Shares may be reallocated to the Hong Kong Public Offering from the International Offering, so that the total number of Offer Shares available for subscription under the Hong Kong Public Offering will increase up to 15,994,400 H Shares, representing approximately 20% of the number of the Offer Shares initially available under the Global Offering (before any exercise of the Over-allotment Option).

In the event of reallocation of Offer Shares between the International Offering and the Hong Kong Public Offering in the circumstances where (a) the International Offer Shares are fully subscribed or oversubscribed and the Hong Kong Offer Shares are fully subscribed or oversubscribed by less than 15 times; or (b) the International Offer Shares are undersubscribed and the Hong Kong Offer Shares are fully subscribed or oversubscribed, the Offer Price shall be fixed at HK\$17.80 per Offer Share (being the low-end of the indicative Offer Price range stated in this prospectus).

If such reallocation is done other than pursuant to Practice Note 18 of the Listing Rules, in accordance with Guidance Letter HKEX-GL91-18, the maximum total number of Offer Shares that may be reallocated to the Hong Kong Public Offering will be 15,994,400 H Shares, representing double of the initial allocation to the Hong Kong Public Offering, and the final Offer Price shall be fixed at the low-end of the indicative offer price range (that is, HK\$17.80 per Offer Share) stated in this prospectus.

References in this prospectus to applications, Application Forms, application or subscription monies or the procedure for application relate solely to the Hong Kong Public Offering.

# **Applications**

Each applicant under the Hong Kong Public Offering will be required to give an undertaking and confirmation in the application submitted by him that he and any person(s) for whose benefit he is making the application has not applied for or taken up, or indicated an interest for, and will not apply for or take up, or indicate an interest for, any International Offer Shares under the International Offering. Such applicant's application is liable to be rejected if such undertaking and/or confirmation is breached and/or untrue (as the case may be) or if it has been or will be placed or allocated International Offer Shares under the International Offering.

The listing of the H Shares on the Stock Exchange is sponsored by the Sole Sponsor. Applicants under the Hong Kong Public Offering are required to pay, on application, the maximum Offer Price of HK\$24.20 per Offer Share in addition to the brokerage, the SFC transaction levy and the

Stock Exchange trading fee payable on each Offer Share, amounting to a total of HK\$4,888.77 for one board lot of 200 H Shares. If the Offer Price, as finally determined in the manner described in the paragraph headed "Pricing and Allocation" below, is less than the maximum Offer Price of HK\$24.20 per Offer Share, appropriate refund payments (including the brokerage, the SFC transaction levy and the Stock Exchange trading fee attributable to the surplus application monies) will be made to successful applicants, without interest. Further details are set out in the section headed "How to Apply for Hong Kong Offer Shares" in this prospectus.

#### THE INTERNATIONAL OFFERING

#### **Number of Offer Shares offered**

The International Offering will consist of an offering of initially 71,971,500 H Shares, representing approximately 90% of the total number of Offer Shares initially available under the Global Offering subject to the reallocation of Offer Shares between the International Offering and the Hong Kong Public Offering, and assuming that the Over-allotment Option is not exercised.

# **Allocation**

The International Offering will include selective marketing of Offer Shares to institutional and professional investors and other investors anticipated to have a sizeable demand for such Offer Shares in Hong Kong and other jurisdictions outside the United States in reliance on Regulation S. Professional investors generally include brokers, dealers, companies (including fund managers) whose ordinary business involves dealing in shares and other securities and corporate entities that regularly invest in shares and other securities. Allocation of Offer Shares pursuant to the International Offering will be effected in accordance with the "book-building" process described in section headed "Pricing and Allocation" below and based on a number of factors, including the level and timing of demand, the total size of the relevant investor's invested assets or equity assets in the relevant sector and whether or not it is expected that the relevant investor is likely to buy further H Shares, and/or hold or sell its H Shares, after the Listing. Such allocation is intended to result in a distribution of the H Shares on a basis which would lead to the establishment of a solid professional and institutional shareholder base to the benefit of the Company and the Shareholders as a whole.

The Joint Global Coordinators (on behalf of the International Underwriters) may require any investor who has been offered Offer Shares under the International Offering and who has made an application under the Hong Kong Public Offering to provide sufficient information to the Joint Global Coordinators so as to allow them to identify the relevant applications under the Hong Kong Public Offering and to ensure that they are excluded from any allotment of Offer Shares under the Hong Kong Public Offering.

#### Reallocation

The total number of Offer Shares to be issued pursuant to the International Offering may change as a result of the clawback arrangement described in paragraph headed "The Hong Kong Public Offering — Reallocation" above, the exercise of the Over-allotment Option in whole or in part and/or any reallocation of unsubscribed Offer Shares originally included in the Hong Kong Public Offering.

#### OVER-ALLOTMENT OPTION

In connection with the Global Offering, the Company is expected to grant the Over-allotment Option to the International Underwriters, exercisable by the Sole Representative (on behalf of the International Underwriters).

Pursuant to the Over-allotment Option, the International Underwriters have the right, exercisable by the Sole Representative (on behalf of the International Underwriters) at any time from the Listing Date until 30 days after the last day for lodging applications under the Hong Kong Public Offering, to require the Company to issue up to an aggregate of 11,995,300 H Shares, representing not more than 15% of the total number of Offer Shares initially available under the Global Offering, at the Offer Price under the International Offering to cover, among others, over-allocations in the International Offering, if any.

If the Over-allotment Option is exercised in full, the additional International Offer Shares to be issued pursuant thereto will represent approximately 3.61% of the issued share capital of the Company immediately following the completion of the Global Offering. The Sole Representative may also cover such over-allocations by purchasing H Shares in the secondary market or by a combination of purchases in the secondary market and a partial exercise of the Over-allotment Option. Any such secondary market purchases will be made in compliance with all applicable laws, rules and regulations. If the Over-allotment Option is exercised, an announcement will be made.

# **STABILIZATION**

Stabilization is a practice used by underwriters in some markets to facilitate the distribution of securities. To stabilize, underwriters may bid for, or purchase, the securities in the secondary market, during a specified period of time, to retard and, if possible, prevent a decline in the initial public market price of the securities below the offer price. Such transactions may be effected in all jurisdictions where it is permissible to do so, in each case in compliance with all applicable laws and regulatory requirements, including those of Hong Kong. In Hong Kong, the price at which stabilization is effected is not permitted to exceed the offer price.

In connection with the Global Offering, the Stabilizing Manager, its affiliates or any person acting for it, on behalf of the Underwriters, may, to the extent permitted by applicable laws of Hong Kong or elsewhere, over-allocate or effect transactions with a view to stabilizing or supporting the market price of the H Shares at a level higher than that which might otherwise prevail for a limited period after the Listing Date. Any market purchases of the H Shares will be effected in compliance with all applicable laws and regulatory requirements. However, there is no obligation on the Stabilizing Manager or any person acting for it to conduct any such stabilizing action. Such stabilizing action, if taken: (i) will be conducted at the absolute discretion of the Stabilizing Manager, its affiliates or any person acting for it; (ii) may be discontinued at any time; and (iii) is required to be brought to an end within 30 days of the last day for lodging applications under the Hong Kong Public Offering.

Stabilization action permitted in Hong Kong pursuant to the Securities and Futures (Price Stabilizing) Rules of the SFO includes: (i) over-allocating for the purpose of preventing or minimizing any reduction in the market price of the H Shares; (ii) selling or agreeing to sell the Shares so as to establish a short position in them for the purpose of preventing or minimizing any reduction in the market price of the H Shares; (iii) purchasing, or agreeing to purchase, the H Shares pursuant to the

Over-allotment Option in order to close out any position established under (i) or (ii) above; (iv) purchasing, or agreeing to purchase, any of the Shares for the sole purpose of preventing or minimizing any reduction in the market price of the H Shares; (v) selling or agreeing to sell any Shares in order to liquidate any position established as a result of the abovementioned purchases; and (vi) offering or attempting to do anything as described in (ii), (iii), (iv) or (v) above.

Specifically, prospective applicants for the Offer Shares should note that:

- the Stabilizing Manager, its affiliates or any person acting for it may, in connection with the stabilizing action, maintain a long position in the H Shares;
- there is no certainty as to the extent to which and the time or period for which the Stabilizing Manager, its affiliates or any person acting for it will maintain such a long position;
- liquidation of any such long position by the Stabilizing Manager, its affiliates or any person acting for it and selling in the open market, may have an adverse impact on the market price of the H Shares;
- no stabilizing action can be taken to support the price of the H Shares for longer than the stabilization period, which will begin on the Listing Date, and is expected to expire on the 30th day after the last day for lodging applications under the Hong Kong Public Offering. After this date, when no further stabilizing action may be taken, demand for the H Shares, and therefore the price of the H Shares, could fall;
- the price of the H Shares cannot be assured to stay at or above the Offer Price by the taking of any stabilizing action; and
- stabilizing bids or transactions effected in the course of the stabilizing action may be made at any price at or below the Offer Price and can, therefore, be done at a price below the price paid by applicants for, or investors in, the Offer Shares.

The Company will ensure or procure that an announcement in compliance with the Securities and Futures (Price Stabilizing) Rules, as amended, made under the SFO will be made within seven days of the expiration of the stabilization period.

#### Over-allocation

Following any over-allocation of H Shares in connection with the Global Offering, the Stabilizing Manager, its affiliates or any person acting for it may cover such over-allocations by, among other methods, using H Shares purchased by the Stabilizing Manager, its affiliates or any person acting for it in the secondary market or exercising the Over-allotment Option in full or in part, or a combination of these means. Any such purchases will be made in accordance with the laws, rules and regulations in place in Hong Kong, including in relation to stabilization, the Securities and Futures (Price Stabilizing) Rules, as amended, made under the SFO. The number of H Shares which can be over-allocated will not exceed the number of H Shares which may be issued and allotted by the Company upon full exercise of the Over-allotment Option, being 11,995,300 H Shares, representing approximately 15% of the Offer Shares initially available under the Global Offering.

#### PRICING AND ALLOCATION

The International Underwriters will be soliciting from prospective investors indications of interest in acquiring Offer Shares in the International Offering. Prospective professional and

institutional investors will be required to specify the number of Offer Shares under the International Offering they would be prepared to acquire either at different prices or at a particular price. This process, known as "book-building," is expected to continue up to, and to cease on or around, the last day for lodging applications under the Hong Kong Public Offering.

Pricing for the Offer Shares for the purpose of the various offerings under the Global Offering will be fixed on the Price Determination Date, which is expected to be on or about Thursday, June 28, 2018 and, in any event, no later than Wednesday, July 4, 2018, by agreement between the Company, the Joint Global Coordinators (for themselves and on behalf of the Underwriters). The number of Offer Shares to be allocated under the various offerings will be determined shortly thereafter.

The Offer Price will not be more than HK\$24.20 per Offer Share and is expected to be not less than HK\$17.80 per Offer Share unless otherwise announced, as further explained below, not later than the morning of the last day for lodging applications under the Hong Kong Public Offering. Applicants under the Hong Kong Public Offering must pay, on application, the maximum Offer Price of HK\$24.20 per Offer Share plus brokerage of 1.0%, SFC transaction levy of 0.0027% and Stock Exchange trading fee of 0.005%, amounting to a total of HK\$4,888.77 for one board lot of 200 H Shares. Prospective investors should be aware that the Offer Price to be determined on the Price Determination Date may be, but is not expected to be, lower than the Offer Price range stated in this prospectus.

The Sole Representative (on behalf of the Underwriters), may, where considered appropriate and with the consent of the Company, based on the level of interest expressed by prospective professional and institutional investors during the book-building process, reduce the number of Offer Shares offered and/or the indicative Offer Price range below that stated in this prospectus at any time on or prior to the morning of the last day for lodging applications under the Hong Kong Public Offering. In such a case, the Company will, as soon as practicable following the decision to make such reduction, and in any event not later than the morning of the last day for lodging applications under the Hong Kong Public Offering, cause to be published in the South China Morning Post (in English) and the Hong Kong Economic Times (in Chinese) and on the websites of the Stock Exchange (www.hkexnews.hk) and the Company (www.china-isotope.com) notices of the reduction. Upon the issue of such notices, the revised number of Offer Shares and/or the Offer Price range will be final and conclusive and the Offer Price, if agreed upon by the Company and the Joint Global Coordinators (for themselves and on behalf of the Underwriters), will be fixed within such revised Offer Price range. Applicants should have regard to the possibility that any announcement of a reduction in the Offer Price range may not be made until the last day for lodging applications under the Hong Kong Public Offering. Such announcement(s) will also include confirmation or revision, as appropriate, of the working capital statement, the Global Offering statistics and any other financial information in this prospectus which may change as a result of any such reduction. In the absence of any such announcement, the number of Offer Shares will not be reduced and the Offer Price, if agreed upon by the Company and the Joint Global Coordinators (for themselves and on behalf of the Underwriters), will under no circumstances be set outside the Offer Price range as stated in this prospectus.

In the event of a reduction in the number of Offer Shares, the Sole Representative may, at its discretion, reallocate the number of Offer Shares to be offered in the Hong Kong Public Offering and the International Offering, provided that the number of Offer Shares comprised in the Hong Kong

Public Offering shall not be less than 10% of the total number of Offer Shares available under the Global Offering (assuming the Over-allotment Option is not exercised). The Offer Shares to be offered in the Hong Kong Public Offering and the Offer Shares to be offered in the International Offering may, in certain circumstances, be reallocated between these offerings at the discretion of the Sole Representative.

The final Offer Price, the level of indications of interest in the Global Offering and the basis of allotment of Offer Shares are expected to be made available through a variety of channels in the manner described in the section headed "How to Apply for Hong Kong Offer Shares — 11. Publication of Results" in this prospectus.

# **UNDERWRITING**

The Hong Kong Public Offering is fully underwritten by the Hong Kong Underwriters under the terms and conditions of the Hong Kong Underwriting Agreement and is subject to the Company and the Joint Global Coordinators (for themselves and on behalf of the Underwriters) agreeing on the Offer Price.

The Company expects to enter into the International Underwriting Agreement relating to the International Offering on the Price Determination Date.

These underwriting arrangements, including the Underwriting Agreements, are summarized in the section headed "Underwriting" in this prospectus.

#### CONDITIONS OF THE GLOBAL OFFERING

Acceptance of all applications for Offer Shares pursuant to the Hong Kong Public Offering will be conditional on:

- (i) the Listing Committee granting approval for the listing of, and permission to deal in, the H Shares to be issued pursuant to the Global Offering (including pursuant to the exercise of the Over-allotment Option) on the Main Board of the Stock Exchange and such listing and permission not subsequently having been revoked prior to the commencement of dealings in the H Shares on the Stock Exchange;
- (ii) the Offer Price having been agreed between the Company and the Joint Global Coordinators (for themselves and on behalf of the Underwriters); and
- (iii) the obligations of the Hong Kong Underwriters under the Hong Kong Underwriting Agreement and the obligations of the International Underwriters under the International Underwriting Agreement becoming unconditional and not having been terminated in accordance with the terms of the respective Underwriting Agreements,

in each case on or before the dates and times specified in the respective Underwriting Agreements (unless and to the extent such conditions are validly waived on or before such dates and times) and, in any event, not later than the date which is 30 days after the date of this prospectus.

If, for any reason, the Offer Price is not agreed between the Company and the Joint Global Coordinators (for themselves and on behalf of the Underwriters) on or before Wednesday, July 4, 2018, the Global Offering will not proceed and will lapse.

The consummation of each of the Hong Kong Public Offering and the International Offering is conditional upon, among others, the other offering becoming unconditional and not having been terminated in accordance with its terms.

If the above conditions are not fulfilled or waived prior to the dates and times specified, the Global Offering will lapse and the Stock Exchange will be notified immediately. Notice of the lapse of the Hong Kong Public Offering will be published by the Company in the South China Morning Post (in English) and the Hong Kong Economic Times (in Chinese) and on the websites of the Stock Exchange at <a href="www.hkexnews.hk">www.hkexnews.hk</a> and the Company at <a href="www.china-isotope.com">www.china-isotope.com</a> on the next day following such lapse. In such event, all application monies will be returned, without interest, on the terms set out in the section headed "How to Apply for Hong Kong Offer Shares — 14. Dispatch/Collection of Share Certificates and Refund Monies" in this prospectus. In the meantime, all application monies will be held in separate bank account(s) with the receiving banks or other bank(s) in Hong Kong licensed under the Banking Ordinance (Chapter 155 of the Laws of Hong Kong) (as amended).

Share certificates for the Offer Shares will only become valid at 8:00 a.m. on Friday, July 6, 2018 provided that the Global Offering has become unconditional in all respects and the right of termination described in section headed "Underwriting" in this prospectus has not been exercised.

# APPLICATION FOR LISTING ON THE STOCK EXCHANGE

We have applied to the Listing Committee for the listing of, and permission to deal in, the H Shares in issue and to be issued pursuant to the Global Offering (including pursuant to the exercise of the Over-allotment Option).

No part of the Company's share or loan capital is listed on or dealt in on any other stock exchange and no such listing or permission to deal is being or proposed to be sought in the near future.

# H SHARES WILL BE ELIGIBLE FOR CCASS

All necessary arrangements have been made enabling the H Shares to be admitted into CCASS.

If the Stock Exchange grants the listing of, and permission to deal in, the H Shares and the Company complies with the stock admission requirements of HKSCC, the H Shares will be accepted as eligible securities by HKSCC for deposit, clearance and settlement in CCASS with effect from the date of commencement of dealings in the H Shares on the Stock Exchange or any other date HKSCC chooses. Settlement of transactions between participants of the Stock Exchange is required to take place in CCASS on the second Business Day after any trading day.

All activities under CCASS are subject to the General Rules of CCASS and CCASS Operational Procedures in effect from time to time.

# **DEALING**

Assuming that the Hong Kong Public Offering becomes unconditional at or before 8:00 a.m. in Hong Kong on Friday, July 6, 2018, it is expected that dealings in the Offer Shares on the Stock Exchange will commence at 9:00 a.m. on Friday, July 6, 2018.

The H Shares will be traded in board lots of 200 H Shares each and the stock code of the H Shares will be 1763.

# 1. HOW TO APPLY

If you apply for Hong Kong Offer Shares, then you may not apply for or indicate an interest for International Offer Shares.

To apply for Hong Kong Offer Shares, you may:

- use a **WHITE** or **YELLOW** Application Form;
- apply online via the White Form eIPO service at www.eipo.com.hk; or
- electronically cause HKSCC Nominees to apply on your behalf.

None of you or your joint applicant(s) may make more than one application, except where you are a nominee and provide the required information in your application.

The Company, the Sole Representative, the White Form eIPO Service Provider and their respective agents may reject or accept any application in full or in part for any reason at their discretion.

#### 2. WHO CAN APPLY

You can apply for Hong Kong Offer Shares on a **WHITE** or **YELLOW** Application Form if you or the person(s) for whose benefit you are applying:

- are 18 years of age or older;
- have a Hong Kong address;
- are outside the United States, and are not a United States Person (as defined in Regulation S under the US Securities Act); and
- are not a legal or natural person of the PRC.

If you apply online through the **White Form eIPO** service, in addition to the above, you must also (i) have a valid Hong Kong identity card number and (ii) provide a valid e-mail address and a contact telephone number.

If you are a firm, the application must be in the individual members' names. If you are a body corporate, the application form must be signed by a duly authorized officer, who must state his representative capacity, and stamped with your corporation's chop.

If an application is made by a person under a power of attorney, the Sole Representative may accept it at their discretion and on any conditions they think fit, including evidence of the attorney's authority.

The number of joint applicants may not exceed four and they may not apply by means of the **White Form eIPO** service for the Hong Kong Offer Shares.

Unless permitted by the Listing Rules, you cannot apply for any Hong Kong Offer Shares if you are:

• an existing beneficial owner of Shares in the Company and/or any its subsidiaries;

- a Director, a Supervisor or chief executive officer of the Company and/or any of its subsidiaries;
- an associate (as defined in the Listing Rules) of any of the above;
- a connected person (as defined in the Listing Rules) of the Company or will become a connected person of the Company immediately upon completion of the Global Offering; and
- have been allocated or have applied for any International Offer Shares or otherwise participate in the International Offering.

# 3. APPLYING FOR HONG KONG OFFER SHARES

# Which Application Channel to Use

For Hong Kong Offer Shares to be issued in your own name, use a **WHITE** Application Form or apply online through **www.eipo.com.hk**.

For Hong Kong Offer Shares to be issued in the name of HKSCC Nominees and deposited directly into CCASS to be credited to your or a designated CCASS Participant's stock account, use a **YELLOW** Application Form or electronically instruct HKSCC via CCASS to cause HKSCC Nominees to apply for you.

# Where to Collect the Application Forms

You can collect a **WHITE** Application Form and a prospectus during normal business hours between 9:00 a.m. on Friday, June 22, 2018 to 12:00 noon on Wednesday, June 27, 2018 from:

(i) any of the following offices of the Joint Bookrunners:

# **China International Capital Corporation Hong Kong Securities Limited**

29th Floor One International Finance Centre 1 Harbour View Street Central Hong Kong

# **CLSA Limited**

18/F, One Pacific Place 88 Queensway Hong Kong

# **ABCI Capital Limited**

11/F, Agricultural Bank of China Tower 50 Connaught Road Central Hong Kong

(ii) any of the branches of the following receiving bank:

**Hong Kong Island** 

Central Branch 1/F., 9 Queen's Road Central, Hong Kong Wanchai Branch 117-123 Hennessy Road, Wanchai, Hong Kong

**Kowloon** 

Tsim Sha Tsui Branch Shop 1&2, G/F, No. 35-37 Hankow Road, Tsimshatsui, Kowloon

Prince Edward Branch 777 Nathan Road, Mongkok, Kowloon

Hung Hom Branch Shop 2A, G/F, Hung Hom Shopping Mall, 2-34E Tak Man Street, Hung Hom,

Kowloon

Telford Branch Shop F19, Telford Plaza, Kowloon Bay, Kowloon

**New Territories** 

Sha Tsui Road Branch Shop 4, G/F Chung On Building, 297-313 Sha Tsui Road, Tsuen Wan, New

Territories

Sheung Shui Branch Shop 2, G/F, San Fung Building, No.33 San Fung Avenue, Shek Wu Hui,

Sheung Shui, New Territories

You can collect a **YELLOW** Application Form and a prospectus during normal business hours from 9:00 a.m. on Friday, June 22, 2018 until 12:00 noon on Wednesday, June 27, 2018 from the Depository Counter of HKSCC at 1/F, One & Two Exchange Square, 8 Connaught Place, Central, Hong Kong or from your stockbroker.

# **Time for Lodging Application Forms**

Your completed **WHITE** or **YELLOW** Application Form, together with a check or a banker's cashier order attached and marked payable to "**ICBC** (**Asia**) **Nominee Limited** — **China Isotope & Radiation Public Offer**" for the payment, should be deposited in the special collection boxes provided at any of the branches of the receiving banks listed above, at the following times:

Friday, June 22, 2018 – 9:00 a.m. to 5:00 p.m.

Saturday, June 23, 2018 – 9:00 a.m. to 1:00 p.m.

Monday, June 25, 2018 – 9:00 a.m. to 5:00 p.m.

Tuesday, June 26, 2018 – 9:00 a.m. to 5:00 p.m.

Wednesday, June 27, 2018 – 9:00 a.m. to 12:00 noon

The application lists will be open from 11:45 a.m. to 12:00 noon on Wednesday, June 27, 2018, the last application day or such later time as described in the section headed "10. Effect of Bad Weather on the Opening of the Applications Lists" below.

#### 4. TERMS AND CONDITIONS OF AN APPLICATION

Follow the detailed instructions in the Application Form carefully; otherwise, your application may be rejected.

By submitting an Application Form or applying through the **White Form eIPO** service, among other things, you:

(i) undertake to execute all relevant documents and instruct and authorize the Company and/or the Sole Representative (or its agents or nominees), as agents of the Company, to

- execute any documents for you and to do on your behalf all things necessary to register any Hong Kong Offer Shares allocated to you in your name or in the name of HKSCC Nominees as required by the Articles of Association;
- (ii) agree to comply with the Companies Ordinance, the Companies (Winding Up and Miscellaneous Provisions) Ordinance and the Articles of Association;
- (iii) confirm that you have read the terms and conditions and application procedures set out in this prospectus and in the Application Form and agree to be bound by them;
- (iv) confirm that you have received and read this prospectus and have only relied on the information and representations contained in this prospectus in making your application and will not rely on any other information or representations except those in any supplement to this prospectus;
- (v) confirm that you are aware of the restrictions on the Global Offering in this prospectus;
- (vi) agree that none of the Company, the Joint Global Coordinators, the Sole Sponsor, the Joint Bookrunners, the Underwriters, their respective directors, officers, employees, partners, agents, advisors and any other parties involved in the Global Offering is or will be liable for any information and representations not in this prospectus (and any supplement to it);
- (vii) undertake and confirm that you or the person(s) for whose benefit you have made the application have not applied for or taken up, or indicated an interest for, and will not apply for or take up, or indicate an interest for, any Offer Shares under the International Offering nor participated in the International Offering;
- (viii) agree to disclose to the Company, the H Share Registrar, receiving banks, the Sole Representative, the Sole Sponsor, the Joint Bookrunners, the Underwriters and/or their respective advisors and agents any personal data which they may require about you and the person(s) for whose benefit you have made the application;
- (ix) if the laws of any place outside Hong Kong apply to your application, agree and warrant that you have complied with all such laws and none of the Company, Sole Representative, the Joint Global Coordinators, the Sole Sponsor, the Joint Bookrunners and the Underwriters nor any of their respective officers or advisors will breach any law outside Hong Kong as a result of the acceptance of your offer to purchase, or any action arising from your rights and obligations under the terms and conditions contained in this prospectus and the Application Form;
- (x) agree that once your application has been accepted, you may not rescind it because of an innocent misrepresentation;
- (xi) agree that your application will be governed by the laws of Hong Kong;
- (xii) represent, warrant and undertake that (i) you understand that the Hong Kong Offer Shares have not been and will not be registered under the US Securities Act and (ii) you and any person for whose benefit you are applying for the Hong Kong Offer Shares are outside the United States (as defined in Regulation S) or are a person described in paragraph (h)(3) of Rule 902 of Regulation S;
- (xiii) warrant that the information you have provided is true and accurate;
- (xiv) agree to accept the Hong Kong Offer Shares applied for, or any lesser number allocated to you under the application;

- authorize the Company to place your name(s) or the name of the HKSCC Nominees, on the Company's register of members as the holder(s) of any Hong Kong Offer Shares allocated to you, and the Company and/or its agents to send any H Share certificate(s) and/or any e-Refund payment instructions and/or any refund check(s) to you or the first-named applicant for joint application by ordinary post at your own risk to the address stated on the application, unless you are eligible to collect the H Share certificate(s) and/or refund check(s) in person;
- (xvi) declare and represent that this is the only application made and the only application intended by you to be made to benefit you or the person for whose benefit you are applying;
- (xvii) understand that the Company and the Sole Representative will rely on your declarations and representations in deciding whether or not to make any allotment of any of the Hong Kong Offer Shares to you and that you may be prosecuted for making a false declaration;
- (xviii) (if the application is made for your own benefit) warrant that no other application has been or will be made for your benefit on a **WHITE** or **YELLOW** Application Form or by giving electronic application instructions to HKSCC or to the **White Form eIPO** Service Provider by you or by anyone as your agent or by any other person; and
- (xix) (if you are making the application as an agent for the benefit of another person) warrant that (i) no other application has been or will be made by you as agent for or for the benefit of that person or by that person or by any other person as agent for that person on a **WHITE** or **YELLOW** Application Form or by giving electronic application instructions to HKSCC and (ii) you have due authority to sign the Application Form or give electronic application instructions on behalf of that other person as their agent.

# **Additional Instructions for Yellow Application Form**

You may refer to the Yellow Application Form for details.

# 5. APPLYING THROUGH WHITE FORM eIPO SERVICE

#### General

Individuals who meet the criteria in the section headed "2. Who can apply" above, may apply through the **White Form eIPO** service for the Offer Shares to be allotted and registered in their own names through the designated website at **www.eipo.com.hk**.

Detailed instructions for application through the **White Form eIPO** are on the designated website. If you do not follow the instructions, your application may be rejected and may not be submitted to the Company. If you apply through the designated website, you authorize the **White Form eIPO** Service Provider to apply on the terms and conditions in this prospectus, as supplemented and amended by the terms and conditions of the **White Form eIPO** service.

# Time for Submitting Applications under the White Form eIPO

You may submit your application to the **White Form eIPO** service provider at **www.eipo.com.hk** (24 hours daily, except on the last application day) from 9:00 a.m. on Friday,

June 22, 2018 until 11:30 a.m. on Wednesday, June 27, 2018 and the latest time for completing full payment of application monies in respect of such applications will be 12:00 noon on Wednesday, June 27, 2018 or such later time under the section headed "10. Effect of Bad Weather on the Opening of the Applications Lists."

# **No Multiple Applications**

If you apply by means of **White Form eIPO**, once you complete payment in respect of any electronic application instruction given by you or for your benefit through the **White Form eIPO** service provider to make an application for Hong Kong Offer Shares, an actual application shall be deemed to have been made. For the avoidance of doubt, giving an electronic application instruction under **White Form eIPO** more than once and obtaining different application reference numbers without effecting full payment in respect of a particular reference number will not constitute an actual application.

If you are suspected of submitting more than one application through the **White Form eIPO** service provider or by any other means, all of your applications are liable to be rejected.

# Section 40 of the Companies (Winding Up and Miscellaneous Provisions) Ordinance

For the avoidance of doubt, the Company and all other parties involved in the preparation of this prospectus acknowledge that each applicant who gives or causes to give electronic application instructions is a person who may be entitled to compensation under Section 40 of the Companies (Winding Up and Miscellaneous Provisions) Ordinance (as applied by Section 342E of the Companies (Winding Up and Miscellaneous Provisions) Ordinance).

#### **Environmental Protection**

The obvious advantage of **White Form eIPO** service is to save the use of paper via the self-serviced and electronic application process. Computershare Hong Kong Investor Services Limited, being the designated **White Form eIPO** Service Provider, will contribute HK\$2.0 for each China Isotope & Radiation Corporation White Form eIPO application submitted via www.eipo.com.hk to support the funding of "Dongjiang River Source Tree Planting" project initiated by Friends of the Earth (HK).

# 6. APPLYING BY GIVING ELECTRONIC APPLICATION INSTRUCTIONS TO HKSCC VIA CCASS

# General

CCASS Participants may give electronic application instructions to apply for the Hong Kong Offer Shares and to arrange payment of the money due on application and payment of refunds under their participant agreements with HKSCC and the General Rules of CCASS and the CCASS Operational Procedures.

If you are a CCASS Investor Participant, you may give these electronic application instructions through the CCASS Phone System by calling 2979-7888 or through the CCASS Internet System (<a href="https://ip.ccass.com">https://ip.ccass.com</a>) (using the procedures in HKSCC's "An Operating Guide for Investor Participants" in effect from time to time).

HKSCC can also input electronic application instructions for you if you go to:

# Hong Kong Securities Clearing Company Limited

Customer Service Center
1/F, One & Two Exchange Square
8 Connaught Place, Central
Hong Kong

and complete an input request form.

You can also collect a prospectus from this address.

If you are not a CCASS Investor Participant, you may instruct your broker or custodian who is a CCASS Clearing Participant or a CCASS Custodian Participant to give electronic application instructions via CCASS terminals to apply for the Hong Kong Offer Shares on your behalf.

You will be deemed to have authorized HKSCC and/or HKSCC Nominees to transfer the details of your application to the Company, the Sole Representative and the H Share Registrar.

# Giving Electronic Application Instructions to HKSCC via CCASS

Where you have given electronic application instructions to apply for the Hong Kong Offer Shares and a **WHITE** Application Form is signed by HKSCC Nominees on your behalf:

- (i) HKSCC Nominees will only be acting as a nominee for you and is not liable for any breach of the terms and conditions of the **WHITE** Application Form or this prospectus;
- (ii) HKSCC Nominees will do the following things on your behalf:
  - agree that the Hong Kong Offer Shares to be allotted shall be issued in the name of HKSCC Nominees and deposited directly into CCASS for the credit of the CCASS Participant's stock account on your behalf or your CCASS Investor Participant's stock account;
  - agree to accept the Hong Kong Offer Shares applied for or any lesser number allocated;
  - undertake and confirm that you have not applied for or taken up, will not apply for or take up, or indicate an interest for, any Offer Shares under the International Offering;
  - declare that only one set of electronic application instructions has been given for your benefit;
  - (if you are an agent for another person) declare that you have only given one set of electronic application instructions for the other person's benefit and are duly authorized to give those instructions as their agent;
  - confirm that you understand that the Company, the Directors and the Sole Representative will rely on your declarations and representations in deciding whether or not to make any allotment of any of the Hong Kong Offer Shares to you and that you may be prosecuted if you make a false declaration;

- authorize the Company to place HKSCC Nominees' name on the Company's register of members as the holder of the Hong Kong Offer Shares allocated to you and to send H Share certificate(s) and/or refund monies under the arrangements separately agreed between us and HKSCC;
- confirm that you have read the terms and conditions and application procedures set out in this prospectus and agree to be bound by them;
- confirm that you have received and/or read a copy of this prospectus and have relied only on the information and representations in this prospectus in causing the application to be made, save as set out in any supplement to this prospectus;
- agree that none of the Company, the Sole Representative, the Underwriters, their respective directors, officers, employees, partners, agents, advisors and any other parties involved in the Global Offering, is or will be liable for any information and representations not contained in this prospectus (and any supplement to it);
- agree to disclose your personal data to the Company, the H Share Registrar, receiving banks, the Sole Representative, the Underwriters and/or its respective advisors and agents;
- agree (without prejudice to any other rights which you may have) that once HKSCC Nominees' application has been accepted, it cannot be rescinded for innocent misrepresentation;
- agree that any application made by HKSCC Nominees on your behalf is irrevocable before the fifth day after the time of the opening of the application lists (excluding any day which is Saturday, Sunday or public holiday in Hong Kong), such agreement to take effect as a collateral contract with us and to become binding when you give the instructions and such collateral contract to be in consideration of the Company agreeing that it will not offer any Hong Kong Offer Shares to any person before the fifth day after the time of the opening of the application lists (excluding any day which is Saturday, Sunday or public holiday in Hong Kong), except by means of one of the procedures referred to in this prospectus. However, HKSCC Nominees may revoke the application before the fifth day after the time of the opening of the application lists (excluding for this purpose any day which is a Saturday, Sunday or public holiday in Hong Kong) if a person responsible for this prospectus under Section 40 of the Companies (Winding Up and Miscellaneous Provisions) Ordinance gives a public notice under that section which excludes or limits that person's responsibility for this prospectus;
- agree that once HKSCC Nominees' application is accepted, neither that application nor your electronic application instructions can be revoked, and that acceptance of that application will be evidenced by the Company's announcement of the Hong Kong Public Offering results;
- agree to the arrangements, undertakings and warranties under the participant agreement between you and HKSCC, read with the General Rules of CCASS and the CCASS Operational Procedures, for the giving electronic application instructions to apply for Hong Kong Offer Shares;
- agree with the Company, for itself and for the benefit of each Shareholder (and so that the Company will be deemed by its acceptance in whole or in part of the

application by HKSCC Nominees to have agreed, for itself and on behalf of each of the Shareholders, with each CCASS Participant giving electronic application instructions) to observe and comply with the Companies Ordinance, the Companies (Winding Up and Miscellaneous Provisions) Ordinance, the Company Law, the Special Regulations and the Articles of Association;

- agree with the Company, for itself and for the benefit of each Shareholder and each Director, Supervisor, manager and other senior officer of the Company (and so that the Company will be deemed by its acceptance in whole or in part of this application to have agreed, for itself and on behalf of each Shareholder and each Director, Supervisor, manager and other senior officer of the Company, with each CCASS Participant giving electronic application instructions):
  - (a) to refer all differences and claims arising from the Articles of Association or any rights or obligations conferred or imposed by the Company Law or other relevant laws and administrative regulations concerning the affairs of the Company to arbitration in accordance with the Articles of Association;
  - (b) that any award made in such arbitration shall be final and conclusive; and
  - (c) that the arbitration tribunal may conduct hearings in open sessions and publish its award;
- agree with the Company (for the Company itself and for the benefit of each Shareholder) that the H Shares are freely transferable by their holders;
- authorize the Company to enter into a contract on its behalf with each Director and officer of the Company whereby each such Director and officer undertakes to observe and comply with his obligations to Shareholders stipulated in the Articles of Association; and
- agree that your application, any acceptance of it and the resulting contract will be governed by the Laws of Hong Kong.

# Effect of Giving Electronic Application Instructions to HKSCC via CCASS

By giving electronic application instructions to HKSCC or instructing your broker or custodian who is a CCASS Clearing Participant or a CCASS Custodian Participant to give such instructions to HKSCC, you (and, if you are joint applicants, each of you jointly and severally) are deemed to have done the following things. Neither HKSCC nor HKSCC Nominees shall be liable to the Company or any other person in respect of the things mentioned below:

- instructed and authorized HKSCC to cause HKSCC Nominees (acting as nominee for the relevant CCASS Participants) to apply for the Hong Kong Offer Shares on your behalf;
- instructed and authorized HKSCC to arrange payment of the maximum Offer Price, brokerage, SFC transaction levy and the Stock Exchange trading fee by debiting your designated bank account and, in the case of a wholly or partially unsuccessful application and/or if the Offer Price is less than the maximum Offer Price per Offer Share initially paid on application, refund of the application monies (including brokerage, SFC transaction levy and the Stock Exchange trading fee) by crediting your designated bank account; and

• instructed and authorized HKSCC to cause HKSCC Nominees to do on your behalf all the things stated in the **WHITE** Application Form and in this prospectus.

#### **Minimum Purchase Amount and Permitted Numbers**

You may give or cause your broker or custodian who is a CCASS Clearing Participant or a CCASS Custodian Participant to give electronic application instructions for a minimum of 200 Hong Kong Offer Shares. Instructions for more than 200 Hong Kong Offer Shares must be in one of the numbers set out in the table in the Application Forms. No application for any other number of Hong Kong Offer Shares will be considered and any such application is liable to be rejected.

# **Time for Inputting Electronic Application Instructions**

CCASS Clearing/Custodian Participants can input electronic application instructions at the following times on the following dates:

```
Friday, June 22, 2018 — 9:00 a.m. to 8:30 p.m.<sup>(1)</sup>
Saturday, June 23, 2018 — 8:00 a.m. to 1:00 p.m.<sup>(1)</sup>
Monday, June 25, 2018 — 8:00 a.m. to 8:30 p.m.<sup>(1)</sup>
Tuesday, June 26, 2018 — 8:00 a.m. to 8:30 p.m.<sup>(1)</sup>
Wednesday, June 27, 2018 — 8:00 a.m.<sup>(1)</sup> to 12:00 noon
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Note:

CCASS Investor Participants can input electronic application instructions from 9:00 a.m. on Friday, June 22, 2018 until 12:00 noon on Wednesday, June 27, 2018 (24 hours daily, except on the last application day).

The latest time for inputting your electronic application instructions will be 12:00 noon on Wednesday, June 27, 2018, the last application day or such later time as described in the section headed "10. Effect of Bad Weather on the Opening of the Application Lists" below.

# No Multiple Applications

If you are suspected of having made multiple applications or if more than one application is made for your benefit, the number of Hong Kong Offer Shares applied for by HKSCC Nominees will be automatically reduced by the number of Hong Kong Offer Shares for which you have given such instructions and/or for which such instructions have been given for your benefit. Any electronic application instructions to make an application for the Hong Kong Offer Shares given by you or for your benefit to HKSCC shall be deemed to be an actual application for the purposes of considering whether multiple applications have been made.

# Section 40 of the Companies (Winding Up and Miscellaneous Provisions) Ordinance

For the avoidance of doubt, the Company and all other parties involved in the preparation of this prospectus acknowledge that each CCASS Participant who gives or causes to give electronic application instructions is a person who may be entitled to compensation under Section 40 of the Companies (Winding Up and Miscellaneous Provisions) Ordinance (as applied by Section 342E of the Companies (Winding Up and Miscellaneous Provisions) Ordinance).

<sup>(1)</sup> These times are subject to change as HKSCC may determine from time to time with prior notification to CCASS Clearing/Custodian Participants.

# **Personal Data**

The section of the Application Form headed "Personal Data" applies to any personal data held by the Company, the H Share Registrar, the receiving bankers, the Sole Representative, the Joint Bookrunners, the Underwriters and any of their respective advisors and agents about you in the same way as it applies to personal data about applicants other than HKSCC Nominees.

#### 7. WARNING FOR ELECTRONIC APPLICATIONS

The subscription of the Hong Kong Offer Shares by giving electronic application instructions to HKSCC is only a facility provided to CCASS Participants. Similarly, the application for Hong Kong Offer Shares through the **White Form eIPO** service is also only a facility provided by the **White Form eIPO** Service Provider to public investors. Such facilities are subject to capacity limitations and potential service interruptions and you are advised not to wait until the last application day in making your electronic applications. The Company, the Directors, the Joint Bookrunners, the Sole Sponsor, the Joint Global Coordinators and the Underwriters take no responsibility for such applications and provide no assurance that any CCASS Participant or person applying through the **White Form eIPO** service will be allotted any Hong Kong Offer Shares.

To ensure that CCASS Investor Participants can give their electronic application instructions, they are advised not to wait until the last minute to input their instructions to the systems. In the event that CCASS Investor Participants have problems in the connection to CCASS Phone System/CCASS Internet System for submission of electronic application instructions, they should either (i) submit a **WHITE** or **YELLOW** Application Form, or (ii) go to HKSCC's Customer Service Center to complete an input request form for electronic application instructions before 12:00 noon on Wednesday, June 27, 2018.

# 8. HOW MANY APPLICATIONS CAN YOU MAKE

Multiple applications for the Hong Kong Offer Shares are not allowed except by nominees. If you are a nominee, in the box on the Application Form marked "For nominees" you must include:

- an account number; or
- some other identification code,

for each beneficial owner or, in the case of joint beneficial owners, for each joint beneficial owner. If you do not include this information, the application will be treated as being made for your benefit.

All of your applications will be rejected if more than one application on a **WHITE** or **YELLOW** Application Form or by giving electronic application instructions to HKSCC or through **White Form eIPO** service, is made for your benefit (including the part of the application made by HKSCC Nominees acting on electronic application instructions). If an application is made by an unlisted company and:

- the principal business of that company is dealing in securities; and
- you exercise statutory control over that company,

then the application will be treated as being for your benefit.

"Unlisted company" means a company with no equity securities listed on the Stock Exchange.

"Statutory control" means you:

- control the composition of the board of directors of the company;
- control more than half of the voting power of the company; or
- hold more than half of the issued share capital of the company (not counting any part of it
  which carries no right to participate beyond a specified amount in a distribution of either
  profits or capital).

# 9. HOW MUCH ARE THE HONG KONG OFFER SHARES

The **WHITE** and **YELLOW** Application Forms have tables showing the exact amount payable for the H Shares.

You must pay the maximum Offer Price, brokerage, SFC transaction levy and the Stock Exchange trading fee in full upon application for the H Shares under the terms set out in the Application Forms.

You may submit an application using a **WHITE** or **YELLOW** Application Form or through the **White Form eIPO** service in respect of a minimum of 200 Hong Kong Public Offer Shares. Each application or electronic application instruction in respect of more than 200 Hong Kong Public Offer Shares must be in one of the numbers set out in the table in the Application Form, or as otherwise specified on the designated website at **www.eipo.com.hk**.

If your application is successful, brokerage will be paid to the Exchange Participants, and the SFC transaction levy and the Stock Exchange trading fee are paid to the Stock Exchange (in the case of the SFC transaction levy, collected by the Stock Exchange on behalf of the SFC).

For further details on the Offer Price, please see the section headed "Structure of the Global Offering — Pricing and Allocation" in this prospectus.

# 10. EFFECT OF BAD WEATHER ON THE OPENING OF THE APPLICATION LISTS

The application lists will not open if there is:

- a tropical cyclone warming signal number 8 or above; or
- a "black" rainstorm warning,

in force in Hong Kong at any time between 9:00 a.m. and 12:00 noon on Wednesday, June 27, 2018. Instead they will open between 11:45 a.m. and 12:00 noon on the next Business Day which does not have either of those warnings in Hong Kong in force at any time between 9:00 a.m. and 12:00 noon.

If the application lists do not open and close on Wednesday, June 27, 2018 or if there is a tropical cyclone warning signal number 8 or above or a "black" rainstorm warning signal in force in Hong Kong that may affect the dates mentioned in the section headed "Expected Timetable" in this prospectus, an announcement will be made in such event.

# 11. PUBLICATION OF RESULTS

The Company expects to announce the final Offer Price, the level of indication of interest in the International Offering, the level of applications in the Hong Kong Public Offering and the basis of

allocation of the Hong Kong Offer Shares on Thursday, July 5, 2018 in the South China Morning Post (in English) and the Hong Kong Economic Times (in Chinese) on the websites of the Stock Exchange at www.hkexnews.hk and the Company at www.china-isotope.com.

The results of allocations and the Hong Kong identity card/passport/Hong Kong business registration numbers of successful applicants under the Hong Kong Public Offering will be available at the times and date and in the manner specified below:

- in the announcement to be posted on the websites of the Stock Exchange at <a href="www.hkexnews.hk">www.hkexnews.hk</a> and the Company at <a href="www.china-isotope.com">www.china-isotope.com</a> by no later than 9:00 a.m. on Thursday, July 5, 2018;
- from the designated results of allocations website at <a href="www.iporesults.com.hk">www.iporesults.com.hk</a> (alternatively: English <a href="https://www.eipo.com.hk/en/Allotment">https://www.eipo.com.hk/en/Allotment</a>; Chinese <a href="https://www.eipo.com.hk/zh-hk/Allotment">https://www.eipo.com.hk/zh-hk/Allotment</a>) with a "search by ID" function on a 24-hour basis from 8:00 a.m. on Thursday, July 5, 2018 to 12:00 midnight on Wednesday, July 11, 2018:
- by telephone enquiry line by calling 2862 8669 between 9:00 a.m. and 10:00 p.m. from Thursday, July 5, 2018 to Sunday, July 8, 2018;
- in the special allocation results booklets which will be available for inspection during opening hours on Thursday, July 5, 2018 to Saturday, July 7, 2018 at all the receiving bank branches and sub-branches.

If the Company accepts your offer to purchase (in whole or in part), which it may do by announcing the basis of allocations and/or making available the results of allocations publicly, there will be a binding contract under which you will be required to purchase the Hong Kong Offer Shares if the conditions of the Global Offering are satisfied and the Global Offering is not otherwise terminated. Further details are contained in the section headed "Structure of the Global Offering" in this prospectus.

You will not be entitled to exercise any remedy of rescission for innocent misrepresentation at any time after acceptance of your application. This does not affect any other right you may have.

# 12. CIRCUMSTANCES IN WHICH YOU WILL NOT BE ALLOTTED OFFER SHARES

You should note the following situations in which the Hong Kong Offer Shares will not be allotted to you:

# (i) If your application is revoked:

By completing and submitting an Application Form or giving electronic application instructions to HKSCC or to **White Form eIPO** Service Provider, you agree that your application or the application made by HKSCC Nominees on your behalf cannot be revoked on or before the fifth day after the time of the opening of the application lists (excluding for this purpose any day which is Saturday, Sunday or public holiday in Hong Kong). This agreement will take effect as a collateral contract with the Company.

Your application or the application made by HKSCC Nominees on your behalf may only be revoked on or before such fifth day if a person responsible for this prospectus under Section 40 of the

Companies (Winding Up and Miscellaneous Provisions) Ordinance (as applied by Section 342E of the Companies (Winding Up and Miscellaneous Provisions) Ordinance) gives a public notice under that section which excludes or limits that person's responsibility for this prospectus.

If any supplement to this prospectus is issued, applicants who have already submitted an application will be notified that they are required to confirm their applications. If applicants have been so notified but have not confirmed their applications in accordance with the procedure to be notified, all unconfirmed applications will be deemed revoked.

If your application or the application made by HKSCC Nominees on your behalf has been accepted, it cannot be revoked. For this purpose, acceptance of applications which are not rejected will be constituted by notification in the press of the results of allocation, and where such basis of allocation is subject to certain conditions or provides for allocation by ballot, such acceptance will be subject to the satisfaction of such conditions or results of the ballot respectively.

# (ii) If the Company or its agents exercise their discretion to reject your application:

The Company, the Sole Representative, the **White Form eIPO** Service Provider and their respective agents and nominees have full discretion to reject or accept any application, or to accept only part of any application, without giving any reasons.

# (iii) If the allotment of Hong Kong Offer Shares is void:

The allotment of Hong Kong Offer Shares will be void if the Listing Committee of the Stock Exchange does not grant permission to list the H Shares either:

- within three weeks from the closing date of the application lists; or
- within a longer period of up to six weeks if the Listing Committee notifies the Company of that longer period within three weeks of the closing date of the application lists.

# (iv) If:

- you make multiple applications or suspected multiple applications;
- you or the person for whose benefit you are applying have applied for or taken up, or indicated an interest for, or have been or will be placed or allocated (including conditionally and/or provisionally) Hong Kong Offer Shares and International Offer Shares;
- your Application Form is not completed in accordance with the stated instructions;
- your electronic application instructions through the White Form eIPO service are not completed in accordance with the instructions, terms and conditions on the designated website;
- your payment is not made correctly or the check or banker's cashier order paid by you is dishonored upon its first presentation;
- the Underwriting Agreements do not become unconditional or are terminated;
- the Company or the Sole Representative believe that by accepting your application, it or they would violate applicable securities or other laws, rules or regulations; or

• your application is for more than 50% of the Hong Kong Offer Shares initially offered under the Hong Kong Public Offering.

# 13. REFUND OF APPLICATION MONIES

If an application is rejected, not accepted or accepted in part only, or if the Offer Price as finally determined is less than the maximum offer price of HK\$24.20 per Offer Share (excluding brokerage, SFC transaction levy and the Stock Exchange trading fee thereon), or if the conditions of the Hong Kong Public Offering are not fulfilled in accordance with "Structure of the Global Offering — Conditions of the Global Offering" in this prospectus or if any application is revoked, the application monies, or the appropriate portion thereof, together with the related brokerage, SFC transaction levy and the Stock Exchange trading fee, will be refunded, without interest or the check or banker's cashier order will not be cleared.

Any refund of your application monies will be made on or before Thursday, July 5, 2018.

# 14. DISPATCH/COLLECTION OF H SHARE CERTIFICATES AND REFUND MONIES

You will receive one H Share certificate for all Hong Kong Offer Shares allotted to you under the Hong Kong Public Offering (except pursuant to applications made on **YELLOW** Application Forms or by electronic application instructions to HKSCC via CCASS where the H Share certificates will be deposited into CCASS as described below).

No temporary document of title will be issued in respect of the H Shares. No receipt will be issued for sums paid on application. If you apply by **WHITE** or **YELLOW** Application Form, subject to personal collection as mentioned below, the following will be sent to you (or, in the case of joint applicants, to the first-named applicant) by ordinary post, at your own risk, to the address specified on the Application Form:

- H Share certificate(s) for all the Hong Kong Offer Shares allotted to you (for YELLOW Application Forms, H Share certificates will be deposited into CCASS as described below); and
- refund check(s) crossed "Account Payee Only" in favor of the applicant (or, in the case of joint applicants, the first-named applicant) for (i) all or the surplus application monies for the Hong Kong Offer Shares, wholly or partially unsuccessfully applied for and/or (ii) the difference between the Offer Price and the maximum Offer Price per Offer Share paid on application in the event that the Offer Price is less than the maximum Offer Price (including brokerage, SFC transaction levy and the Stock Exchange trading fee but without interest). Part of the Hong Kong identity card number/passport number, provided by you or the first-named applicant (if you are joint applicants), may be printed on your refund check, if any. Your banker may require verification of your Hong Kong identity card number/passport number before encashment of your refund check(s). Inaccurate completion of your Hong Kong identity card number/passport number may invalidate or delay encashment of your refund check(s).

Subject to arrangement on dispatch/collection of H Share certificates and refund monies as mentioned below, any refund checks and H Share certificates are expected to be posted on or before Thursday, July 5, 2018. The right is reserved to retain any H Share certificate(s) and any surplus application monies pending clearance of check(s) or banker's cashier's order(s).

H Share certificates will only become valid at 8:00 a.m. on Friday, July 6, 2018 provided that the Global Offering has become unconditional and the right of termination described in the section headed "Underwriting" in this prospectus has not been exercised. Investors who trade shares prior to the receipt of H Share certificates or the H Share certificates becoming valid do so at their own risk.

#### **Personal Collection**

# (i) If you apply using a WHITE Application Form

If you apply for 1,000,000 or more Hong Kong Offer Shares and have provided all information required by your Application Form, you may collect your refund check(s) and/or share certificate(s) from the H Share Registrar, Computershare Hong Kong Investor Services Limited at Shops 1712-1716, 17th Floor, Hopewell Centre 183 Queen's Road East, Wanchai, Hong Kong, from 9:00 a.m. to 1:00 p.m. on Thursday, July 5, 2018 or such other date as notified by us in the newspapers.

If you are an individual who is eligible for personal collection, you must not authorize any other person to collect for you. If you are a corporate applicant which is eligible for personal collection, your authorized representative must bear a letter of authorization from your corporation stamped with your corporation's chop. Both individuals and authorized representatives must produce, at the time of collection, evidence of identity acceptable to the H Share Registrar.

If you do not collect your refund check(s) and/or H Share certificate(s) personally within the time specified for collection, they will be dispatched promptly to the address specified in your Application Form by ordinary post at your own risk.

If you apply for less than 1,000,000 Hong Kong Offer Shares, your refund check(s) and/or H Share certificate(s) will be sent to the address on the relevant Application Form on or before Thursday, July 5, 2018, by ordinary post and at your own risk.

# (ii) If you apply using a YELLOW Application Form

If you apply for 1,000,000 Hong Kong Offer Shares or more, please follow the same instructions as described above. If you have applied for less than 1,000,000 Hong Kong Offer Shares, your refund check(s) will be sent to the address on the relevant Application Form on or before Thursday, July 5, 2018, by ordinary post and at your own risk.

If you apply by using a **YELLOW** Application Form and your application is wholly or partially successful, your H Share certificate(s) will be issued in the name of HKSCC Nominees and deposited into CCASS for credit to your or the designated CCASS Participant's stock account as stated in your Application Form on Thursday, July 5, 2018, or upon contingency, on any other date determined by HKSCC or HKSCC Nominees.

# • If you apply through a designated CCASS Participant (other than a CCASS Investor Participant)

For Hong Kong Public Offering Shares credited to your designated CCASS Participant's stock account (other than CCASS Investor Participant), you can check the number of Hong Kong Public Offering Shares allotted to you with that CCASS Participant.

# • If you are applying as a CCASS Investor Participant

The Company will publish the results of CCASS Investor Participants' applications together with the results of the Hong Kong Public Offering in the manner described in the section headed "11. Publication of Results" above. You should check the announcement published by the Company and report any discrepancies to HKSCC before 5:00 p.m. on Thursday, July 5, 2018 or any other date as determined by HKSCC or HKSCC Nominees. Immediately after the credit of the Hong Kong Offer Shares to your stock account, you can check your new account balance via the CCASS Phone System and CCASS Internet System.

# (iii) If you apply through the White Form eIPO service

If you apply for 1,000,000 Hong Kong Offer Shares or more and your application is wholly or partially successful, you may collect your H Share certificate(s) from the H Share Registrar, Computershare Hong Kong Investor Services Limited at Shops 1712-1716, 17th Floor, Hopewell Centre, 183 Queen's Road East, Wanchai, Hong Kong, from 9:00 a.m to 1:00 p.m on Thursday, July 5, 2018, or such other date as notified by the Company in the newspapers as the date of dispatch/collection of H Share certificates e-Refund payment instructions/refund checks.

If you do not collect your H Share certificate(s) personally within the time specified for collection, they will be sent to the address specified in your application instructions by ordinary post at your own risk.

If you apply for less than 1,000,000 Hong Kong Offer Shares, your H Share certificate(s) (where applicable) will be sent to the address specified in your application instructions on or before Thursday, July 5, 2018 by ordinary post at your own risk.

If you apply and pay the application monies from a single bank account, any refund monies will be dispatched to that bank account in the form of e-Refund payment instructions. If you apply and pay the application monies from multiple bank accounts, any refund monies will be dispatched to the address as specified in your application instructions in the form of refund check(s) by ordinary post at your own risk.

# (iv) If you apply via Electronic Application Instructions to HKSCC

# Allocation of Hong Kong Offer Shares

For the purposes of allocating Hong Kong Offer Shares, HKSCC Nominees will not be treated as an applicant. Instead, each CCASS Participant who gives electronic application instructions or each person for whose benefit instructions are given will be treated as an applicant.

# Deposit of H Share Certificates into CCASS and Refund of Application Monies

- If your application is wholly or partially successful, your H Share certificate(s) will be
  issued in the name of HKSCC Nominees and deposited into CCASS for the credit of your
  designated CCASS Participant's stock account or your CCASS Investor Participant stock
  account on Thursday, July 5, 2018, or, on any other date determined by HKSCC or
  HKSCC Nominees.
- The Company expects to publish the application results of CCASS Participants (and where the CCASS Participant is a broker or custodian, the Company will include information

relating to the relevant beneficial owner), your Hong Kong identity card number/passport number or other identification code (Hong Kong business registration number for corporations) and the basis of allotment of the Hong Kong Public Offering in the manner specified in section headed "11. Publication of Results" above on Thursday, July 5, 2018. You should check the announcement published by the Company and report any discrepancies to HKSCC before 5:00 p.m. on Thursday, July 5, 2018 or such other date as determined by HKSCC or HKSCC Nominees.

- If you have instructed your broker or custodian to give electronic application instructions on your behalf, you can also check the number of Hong Kong Offer Shares allotted to you and the amount of refund monies (if any) payable to you with that broker or custodian.
- If you have applied as a CCASS Investor Participant, you can also check the number of Hong Kong Offer Shares allotted to you and the amount of refund monies (if any) payable to you via the CCASS Phone System and the CCASS Internet System (under the procedures contained in HKSCC's "An Operating Guide for Investor Participants" in effect from time to time) on Thursday, July 5, 2018. Immediately following the credit of the Hong Kong Offer Shares to your stock account and the credit of refund monies to your bank account, HKSCC will also make available to you an activity statement showing the number of Hong Kong Offer Shares credited to your CCASS Investor Participant stock account and the amount of refund monies (if any) credited to your designated bank account.
- Refund of your application monies (if any) in respect of wholly and partially unsuccessful applications and/or difference between the Offer Price and the maximum Offer Price per Offer Share initially paid on application (including brokerage, SFC transaction levy and the Stock Exchange trading fee but without interest) will be credited to your designated bank account or the designated bank account of your broker or custodian on Thursday, July 5, 2018.

#### 15. ADMISSION OF THE H SHARES INTO CCASS

If the Stock Exchange grants the listing of, and permission to deal in, the Offer Shares and we comply with the stock admission requirements of HKSCC, the Offer Shares will be accepted as eligible securities by HKSCC for deposit, clearance and settlement in CCASS with effect from the date of commencement of dealings in the Offer Shares or any other date HKSCC chooses. Settlement of transactions between Exchange Participants (as defined in the Listing Rules) is required to take place in CCASS on the second Business Day after any trading day.

All activities under CCASS are subject to the General Rules of CCASS and CCASS Operational Procedures in effect from time to time.

Investors should seek the advice of their stockbroker or other professional advisor for details of the settlement arrangement as such arrangements may affect their rights and interests.

All necessary arrangements have been made enabling the Offer Shares to be admitted into CCASS.

The following is the text of a report set out on pages I-1 to I-73, received from the Company's reporting accountants, KPMG, Certified Public Accountants, Hong Kong, for the purpose of incorporation in this prospectus.



# ACCOUNTANTS' REPORT ON HISTORICAL FINANCIAL INFORMATION TO THE DIRECTORS OF CHINA ISOTOPE & RADIATION CORPORATION AND CHINA INTERNATIONAL CAPITAL CORPORATION HONG KONG SECURITIES LIMITED

#### Introduction

We report on the historical financial information of China Isotope & Radiation Corporation (the "Company") and its subsidiaries (together, the "Group") set out on pages I-3 to I-73, which comprises the consolidated statements of financial position of the Group and the statements of financial position of the Company as at December 31, 2015, 2016 and 2017 and the consolidated statements of profit or loss, the consolidated statements of profit or loss and other comprehensive income, the consolidated statements of changes in equity and the consolidated statements of cash flows for each of the years ended December 31, 2015, 2016 and 2017 (the "Track Record Period"), and a summary of significant accounting policies and other explanatory information (together, the "Historical Financial Information"). The Historical Financial Information set out on pages I-3 to I-73 forms an integral part of this report, which has been prepared for inclusion in the prospectus of the Company dated June 22, 2018 (the "Prospectus") in connection with the initial listing of shares of the Company on the Main Board of The Stock Exchange of Hong Kong Limited.

# Directors' responsibility for Historical Financial Information

The directors of the Company are responsible for the preparation of Historical Financial Information that gives a true and fair view in accordance with the basis of preparation and presentation set out in Note 1 to the Historical Financial Information, and for such internal control as the directors of the Company determine is necessary to enable the preparation of the Historical Financial Information that is free from material misstatement, whether due to fraud or error.

# Reporting accountants' responsibility

Our responsibility is to express an opinion on the Historical Financial Information and to report our opinion to you. We conducted our work in accordance with Hong Kong Standard on Investment Circular Reporting Engagements 200 "Accountants' Reports on Historical Financial Information in Investment Circulars" issued by the Hong Kong Institute of Certified Public Accountants (the "HKICPA"). This standard requires that we comply with ethical standards and plan and perform our work to obtain reasonable assurance about whether the Historical Financial Information is free from material misstatement.

Our work involved performing procedures to obtain evidence about the amounts and disclosures in the Historical Financial Information. The procedures selected depend on the reporting accountants' judgment, including the assessment of risks of material misstatement of the Historical Financial Information, whether due to fraud or error. In making those risk assessments, the reporting accountants consider internal control relevant to the entity's preparation of Historical Financial

Information that gives a true and fair view in accordance with the basis of preparation and presentation set out in Note 1 to the Historical Financial Information in order to design procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Our work also included evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by the directors, as well as evaluating the overall presentation of the Historical Financial Information.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

### **Opinion**

In our opinion, the Historical Financial Information gives, for the purpose of the accountants' report, a true and fair view of the Company's and the Group's financial position as at December 31, 2015, 2016 and 2017 and of the Group's financial performance and cash flows for the Track Record Period in accordance with the basis of preparation and presentation set out in Note 1 to the Historical Financial Information.

Report on matters under the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited and the Companies (Winding Up and Miscellaneous Provisions) Ordinance

### Adjustments

In preparing the Historical Financial Information, no adjustments to the Underlying Financial Statements as defined on page I-3 have been made.

### **Dividends**

We refer to Note 31 to the Historical Financial Information which contains information about the dividends paid by the Company in respect of the Track Record Period.

### **KPMG**

Certified Public Accountants 8th Floor, Prince's Building 10 Chater Road Central, Hong Kong

June 22, 2018

### HISTORICAL FINANCIAL INFORMATION

Set out below is the Historical Financial Information which forms an integral part of this accountants' report.

The consolidated financial statements of the Group for the Track Record Period, on which the Historical Financial Information is based, were audited by KPMG Huazhen LLP in accordance with Hong Kong Standards on Auditing issued by the HKICPA (the "Underlying Financial Statements").

# **CONSOLIDATED STATEMENTS OF PROFIT OR LOSS** (Expressed in Renminbi ("RMB"))

		Years	ended Decem	ber 31,
	Note	2015	2016	2017
		RMB'000	RMB'000	RMB'000
Revenue	4	2,152,134	2,363,122	2,672,045
Cost of sales		(664,934)	(698,762)	(787,259)
Gross profit		1,487,200	1,664,360	1,884,786
Other income	5	20,481	26,207	35,965
Selling and distribution expenses		(810,750)	(933,902)	(1,094,684)
Administrative expenses		(234,323)	(258,304)	(296,014)
Profit from operations		462,608	498,361	530,053
Finance costs	6(a)	(10,527)	(14,391)	(7,095)
Share of profits less losses of associates		17,223	11,519	14,764
Share of profits of a joint venture		16,530	17,260	20,242
Profit before taxation	6	485,834	512,749	557,964
Income tax	7	(75,452)	(78,247)	(82,326)
Profit for the year		410,382	434,502	475,638
Attributable to:				
Equity shareholders of the Company		254,205	262,108	271,454
Non-controlling interests		156,177	172,394	204,184
Profit for the year		410,382	434,502	475,638
Earnings per share	8			
Basic and diluted (RMB)		1.27	1.31	1.17

# CONSOLIDATED STATEMENTS OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME

(Expressed in RMB)

Years	ended Decem	ber 31,
2015	2016	2017
RMB'000	RMB'000	RMB'000
410,382	434,502	475,638
2,797	4,840	(4,930)
(2,440)	(793)	114
357	4,047	(4,816)
410,739	438,549	470,822
254,565	266,154	266,583
156,174	172,395	204,239
410,739	438,549	470,822
	2015 RMB'000 410,382 2,797 (2,440) 357 410,739 254,565 156,174	RMB'000         RMB'000           410,382         434,502           2,797         4,840           (2,440)         (793)           357         4,047           410,739         438,549           254,565         266,154           156,174         172,395

# **CONSOLIDATED STATEMENTS OF FINANCIAL POSITION** (Expressed in RMB)

		As	at December	31,
	Note	2015	2016	2017
		RMB'000	RMB'000	RMB'000
Non-current assets				
Property, plant and equipment	11	549,354	607,760	765,845
Investment properties	11	8,316	16,858	15,592
Lease prepayments	12	47,097	57,657	63,928
Intangible assets	13	4,699	12,865	32,176
Goodwill	17	5,670	5,670	5,670
Interests in associates	15	59,601	73,847	81,425
Interest in a joint venture	16	42,380	36,006	38,774
Long-term receivables	29(c)	27,901	29,267	30,702
Unquoted equity investments	18	7,251	47,251	47,251
Deferred tax assets	28(b)	109,468	121,050	155,489
		861,737	1,008,231	1,236,852
Current assets				
Trading securities		148	152	104
Gross amounts due from customers for contract work	21	6	467	_
Inventories	19	188,038	225,734	263,002
Trade and bill receivables	20	1,064,748	1,214,857	1,507,234
Prepayments, deposits and other receivables	22	141,403	126,920	210,683
Income tax recoverable	28(a)	2,904	3,441	86
Cash at bank and on hand	23	711,089	1,003,217	1,478,833
		2,108,336	2,574,788	3,459,942
Current liabilities				
Borrowings	24(b)	_	480,000	_
Trade payables	25	110,183	119,866	198,016
Accruals and other payables	26	1,203,384	1,254,963	1,606,489
Gross amounts due to customers for contract work	21	848	3,172	1,816
Provisions	29	54,652	59,954	64,614
Income tax payable	28(a)	35,201	34,558	45,304
		1,404,268	1,952,513	1,916,239
Net current assets		704,068	622,275	1,543,703
Total assets less current liabilities		1,565,805	1,630,506	2,780,555

# **CONSOLIDATED STATEMENTS OF FINANCIAL POSITION (Continued)** (Expressed in RMB)

		As	at December	31,
	Note	2015	2016	2017
		RMB'000	RMB'000	RMB'000
Non-current liabilities				
Borrowings	24(a)	60,000	_	150,000
Deferred income	30	26,540	26,027	37,890
Defined benefit retirement obligation	27(a)	30,912	30,898	40,511
Deferred tax liabilities	28(b)	20	21	9
Provisions	29	94,683	100,102	105,811
		212,155	157,048	334,221
Net assets		1,353,650	1,473,458	2,446,334
Capital and reserves	31			
Share capital		200,000	200,000	239,906
Reserves		647,660	727,522	1,629,038
Total equity attributable to equity shareholders of the Company		847,660	927,522	1,868,944
Non-controlling interests		505,990	545,936	577,390
Total equity		1,353,650	1,473,458	2,446,334

# STATEMENTS OF FINANCIAL POSITION OF THE COMPANY (Expressed in RMB)

		As	at December	31,
	Note	2015	2016	2017
		RMB'000	RMB'000	RMB'000
Non-current assets				
Property, plant and equipment	11	30,722	17,456	15,559
Investment property	11	1,025	859	693
Intangible assets	13	1,255	1,128	2,242
Investments in subsidiaries	14	361,510	371,510	413,990
Interests in associates	15	7,393	8,416	10,984
Interest in a joint venture	16	41,346	34,972	37,739
Unquoted equity investments	18	7,140	47,140	47,140
Deferred tax assets	28(b)	14,427	15,388	24,288
		464,818	496,869	552,635
Current assets				
Inventories	19	10,474	10,984	17,621
Trade and bill receivables	20	97,636	100,667	115,223
Prepayments, deposits and other receivables	22	173,014	186,106	484,350
Income tax recoverable	28(a)	2,293	3,387	_
Cash at bank and on hand	23	26,374	136,327	438,532
		309,791	437,471	1,055,726
Current liabilities				
Borrowings	24(b)	_	460,000	_
Trade payables	25	11,296	18,241	34,021
Accruals and other payables	26	406,887	193,179	170,630
Income tax payable	28(a)	_	· —	6,887
		418,183	671,420	211,538
Net current (liabilities)/assets		(108,392)	(233,949)	844,188
Total assets less current liabilities		356,426	262,920	1,396,823
Non-current liabilities		,		
Borrowings	24(a)	60,000	_	_
Defined benefit retirement obligation	27(a)	22,479	22,085	23,368
		82,479	22,085	23,368
Net assets		273,947	240,835	1,373,455
Capital and reserves				
Share capital	31	200,000	200,000	239,906
Reserves	51	73,947	40,835	1,133,549
Total equity		273,947	240,835	1,373,455

# CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY (Expressed in RMB)

			Attı	ributable to eq	uity shareholde	Attributable to equity shareholders of the Company	ıny			
				PRC						
	Note	Share capital	Capital reserve	statutory reserve	Other reserve	Exchange reserve	Retained profits	Sub-total	Non-controlling interests	Total equity
	•	RMB'000 Note31(c)	<b>RMB'000</b> Note31(d)(i)	<b>RMB'000</b> Note31(d)(ii)	<b>RMB'000</b> Note31(d)(iii)	<b>RMB'000</b> Note31(d)(iv)	RMB'000	RMB'000	RMB'000	RMB'000
Balance at January 1, 2015	·	200,000	49,222	31,266	8,310	(2,369)	478,779	765,208	410,135	1,175,343
Changes in equity: Profit for the year							254,205	254,205	156,177	410,382
Other comprehensive income	•					2,797	(2,437)	360	(3)	357
Total comprehensive income	·					2,797	251,768	254,565	156,174	410,739
Capital contributions from non-controlling equity owners of										
subsidiaries									5,950	5,950
Appropriation of maintenance and production funds					8,705		(8,705)			
Utilization of maintenance and production funds					(7,238)		7,238			
Appropriation to reserves				8,248			(8,248)			
Disposal of a subsidiary									126	126
Dividends	31(b)						(172,113)	(172,113)		(172,113)
Distributions of subsidiaries									(66,395)	(66,395)
Balance at December 31, 2015	•	200,000	49,222	39,514	9,777	428	548,719	847,660	505,990	1,353,650

The accompanying notes form part of the Historical Financial Information.

CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY (Continued) (Expressed in RMB)

	,		Attri	butable to equi	ity shareholder	Attributable to equity shareholders of the Company	ıny			
	•			PRC						
	Note	Share capital	Capital reserve	Statutory reserve	Other reserve	Exchange reserve	Retained profits	Sub-total	Non-controlling interests	Total equity
	. – –	<b>RMB'000</b> Note31(c)	<b>RMB'000</b> Note31(d)(i)	<b>RMB'000</b> Note31(d)(ii)	<b>RMB'000</b> Note31(d)(iii)	<b>RMB'000</b> Note31(d)(iv)	RMB'000	RMB'000	RMB'000	RMB'000
Balance at January 1, 2016	•	200,000	49,222	39,514	9,777	428	548,719	847,660	505,990	1,353,650
Changes in equity: Profit for the year							262,108	262,108	172,394	434,502
Other comprehensive income	'					4,840	(794)	4,046		4,047
Total comprehensive income	•					4,840	261,314	266,154	172,395	438,549
Capital contributions from non-controlling equity owners of										
subsidiaries									2,175	2,175
Appropriation of maintenance and production funds					9,353		(9,353)			
Utilization of maintenance and production funds					(7,895)		7,895			
Appropriation to reserves				15,346			(15,346)			
Dividends	31(b)						(186,292)	(186,292)		(186,292)
Distributions of subsidiaries									(134,624)	(134,624)
Balance at December 31, 2016	,	200,000	49,222	54,860	11,235	5,268	606,937	927,522	545,936	1,473,458

The accompanying notes form part of the Historical Financial Information.

CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY (Continued) (Expressed in RMB)

			Attri	butable to equi	ty shareholder	Attributable to equity shareholders of the Company	ny			
				PRC	!	,			;	
	Note	Share capital	Capital reserve	Statutory reserve	Other reserve	Exchange reserve	Retained profits	Sub-total	Non-controlling interests	Total equity
		<b>RMB'000</b> Note31(c)	<b>RMB'000</b> Note31(d)(i)	<b>RMB'000</b> Note31 (d)(ii)	<b>RMB'000</b> Note31(d)(iii)	<b>RMB'000</b> Note31(d)(iv)	RMB'000	RMB'000	RMB'000	RMB'000
Balance at January 1, 2017		200,000	49,222	54,860	11,235	5,268	606,937	927,522	545,936	1,473,458
Changes in equity: Profit for the year							271,454	271,454	204,184	475,638
Other comprehensive income						(4,930)	59	(4,871)	55	(4,816)
Total comprehensive income						(4,930)	271,513	266,583	204,239	470,822
Issue of ordinary shares		39,906	810,094				-	850,000		850,000
Capital contributions from non-controlling equity owners of subsidiaries									23,630	23,630
Appropriation of maintenance and production funds					10,346		(10,346)			
Utilization of maintenance and production funds					(7,625)		7,625			
Appropriation to reserves				45,894			(45,894)			
Dividends	31(b)						(175,161)	(175,161)		(175,161)
Distributions of subsidiaries									(196,415)	(196,415)
Balance at December 31, 2017		239,906	859,316	100,754	13,956	338	654,674	1,868,944	577,390	2,446,334

The accompanying notes form part of the Historical Financial Information.

# **CONSOLIDATED STATEMENTS OF CASH FLOWS** (Expressed in RMB)

		Years e	nded Decem	ber 31,
	Note	2015	2016	2017
		RMB'000	RMB'000	RMB'000
Cash flows from operating activities				
Profit before taxation		485,834	512,749	557,964
Adjustments for:				
Net loss/(gain) from fair value changes in trading securities		15	(4)	48
Depreciation and amortization	6(c)	53,786	65,145	67,932
Government grants	5	(4,618)	(7,291)	(9,026)
Interest income	5	(6,089)	(7,285)	(15,904)
Finance costs	6(a)	10,527	14,391	7,095
Investment income of unquoted equity investments	5	(1,408)	(563)	(1,683)
Net gain on disposal				
of long-term investments	5	(1,308)	_	_
Net (gain)/loss on disposal				
of property, plant and equipment	5	(356)	(2,395)	1,190
Share of profits less losses				
of associates		(17,223)	(11,519)	(14,764)
Share of profits of a joint venture		(16,530)	(17,260)	(20,242)
Changes in working capital:				
Increase in inventories	19	(9,669)	(37,696)	(37,268)
(Increase)/decrease in gross amounts due from customers for contract work	21	(6)	(461)	467
Increase in trade and bill receivables	20	(130,766)	(150,109)	(292,377)
(Increase)/decrease in prepayments, deposits and other receivables	22	(4,524)	27,603	(87,637)
Increase in trade payables	25	17,408	9,683	78,150
Increase in accruals and other payables		100,794	146,277	286,009
(Decrease)/increase in gross amounts due to customers for contract work	21	(717)	2,324	(1,356)
Increase/(decrease) in defined benefit retirement obligation	27	413	(1,191)	8,217
Increase in provisions		5,865	6,243	5,621
Cash generated from operating activities		481,428	548,641	532,436
Income tax paid	28(a)	(91,892)	(91,008)	(102,676)
Net cash generated from operating activities		389,536	457,633	429,760

# **CONSOLIDATED STATEMENTS OF CASH FLOWS (Continued)** (Expressed in RMB)

		Years o	ended Decem	ber 31,
	Note	2015	2016	2017
		RMB'000	RMB'000	RMB'000
Investing activities				
Increase in deposits with banks	23	(276,566)	(106,685)	(375,155)
Withdrawal of deposits with banks	23	355,120	80,307	119,964
Payments for purchase of investment properties, property, plant and equipment, lease				
prepayments and intangible assets		(186,205)	(125,972)	(245,594)
Payments for acquisition of an unquoted equity investment		_	(40,000)	_
Proceeds from disposal of property, plant and equipment		32	87	5,932
Proceeds from disposal of a subsidiary		_	1,511	_
Dividends received from associates		1,871	2,114	2,252
Dividends received from a joint venture	16	12,250	23,634	17,475
Dividends received from unquoted equity investments		1,408	563	1,683
Government grants received		9,969	6,778	20,889
Interests received	5	6,089	7,285	15,082
Net cash used in investing activities		(76,032)	(150,378)	(437,472)

# **CONSOLIDATED STATEMENTS OF CASH FLOWS (Continued)** (Expressed in RMB)

		Years o	ended Decem	ber 31,
	Note	2015	2016	2017
		RMB'000	RMB'000	RMB'000
Financing activities				
Issue of ordinary shares		_	_	850,000
Capital contributions from non-controlling equity owners of subsidiaries		_	_	23,630
Proceeds from borrowings	24	60,000	420,000	150,000
Repayment of borrowings	24	(460,000)	_	(480,000)
Interests paid	6(a)	(5,053)	(9,001)	(2,234)
Dividends paid by the Company to equity shareholders		_	(319,004)	(177,515)
Dividends paid by subsidiaries to non-controlling equity owners		(65,935)	(132,893)	(135,514)
Net cash (used in)/generated from financing activities		(470,988)	(40,898)	228,367
Net (decrease)/increase in cash and cash equivalents		(157,484)	266,357	220,655
Cash and cash equivalents at the beginning of the year	23	809,493	652,113	918,590
Effect of foreign exchange rate changes		104	120	(89)
Cash and cash equivalents at the end of year	23	652,113	918,590	1,139,156

# NOTES TO THE HISTORICAL FINANCIAL INFORMATION (Expressed in RMB unless otherwise indicated)

## 1 BASIS OF PREPARATION AND PRESENTATION OF HISTORICAL FINANCIAL INFORMATION

The Company was formerly known as China Isotope Company Limited which was established on December 4, 2007 in the People's Republic of China (the "PRC") as a state-owned enterprise with limited liability. The Company was converted into a joint stock company with limited liability on December 6, 2011. China National Nuclear Corporation ("CNNC"), China Institute of Atomic Energy ("CIAE") and Nuclear Power Institute of China ("NPIC") held 51.93%, 26.92% and 21.15% equity interests in the Company respectively immediately after the conversion. The Company converted its equity into 200,000,000 shares with a par value of RMB1 each. On March 14, 2017, the Company issued 39,906,000 new ordinary shares to CNNC, five related parties under CNNC, Beijing Aerospace Industry Investment Fund LLP and China Aerospace Investment Co., Ltd. at an aggregated consideration of RMB850,000,000. The proceeds of RMB39,906,000 received by the Company, representing the par value, were credited to the Company's share capital. The remaining proceeds received by the Company, net of transaction costs, of RMB810,094,000 were credited to the Company's capital reserve account.

The principal activities of the Company and its subsidiaries (the "Group") are research, development, manufacturing and sale of a broad range of pharmaceuticals and radioactive source products, and also design, manufacturing and installation of gamma ray irradiation facilities, provision of irradiation service for sterilization purpose as well as independent clinical laboratory services in the PRC.

The Historical Financial Information has been prepared in accordance with all applicable International Financial Reporting Standards ("IFRSs") which collective term includes all applicable individual International Financial Reporting Standards, International Accounting Standards ("IASs") and Interpretations issued by the International Accounting Standards Board (the "IASB"). Further details of the significant accounting policies adopted are set out in Note 2.

The IASB has issued a number of new and revised IFRSs. For the purpose of preparing this Historical Financial Information, the Group has adopted all applicable new and revised IFRSs to the Track Record Period, except for any new standards or interpretations that are not yet effective for the accounting period beginning January 1, 2017. The revised and new accounting standards and interpretations issued but not yet effective for the accounting period beginning on January 1, 2017 are set out in Note 36.

The Historical Financial Information also complies with the applicable disclosure provisions of the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited (the "Stock Exchange").

The accounting policies set out below have been applied consistently to all periods presented in the Historical Financial Information.

### 2 SIGNIFICANT ACCOUNTING POLICIES

### (a) Basis of measurement

The Historical Financial Information is presented in RMB, rounded to the nearest thousand. The Historical Financial Information is prepared on the historical cost basis except that trading securities are stated at fair value.

### (b) Use of estimates and judgments

The preparation of Historical Financial Information in conformity with IFRSs requires management to make judgments, estimates and assumptions that affect the application of policies and reported amounts of assets, liabilities, income and expenses. The estimates and associated assumptions are based on historical experience and various other factors that are believed to be reasonable under the circumstances, the results of which form the basis of making the judgments about carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimate is revised if the revision affects only that period, or in the period of the revision and future periods if the revision affects both current and future periods.

Judgments made by management in the application of IFRSs that have significant effect on the Historical Financial Information and major sources of estimation uncertainty are discussed in Note 3.

### (c) Subsidiaries and non-controlling interests

Subsidiaries are entities controlled by the Group. The Group controls an entity when it is exposed, or has rights, to variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. When assessing whether the Group has power, only substantive rights (held by the Group and other parties) are considered.

An investment in a subsidiary is consolidated into the Historical Financial Information from the date that control commences until the date that control ceases. Intra-group balances, transactions and cash flows and any unrealized profits arising from intra-group transactions are eliminated in full in preparing the Historical Financial Information. Unrealized losses resulting from intra-group transactions are eliminated in the same way as unrealized gains but only to the extent that there is no evidence of impairment.

Non-controlling interests represent the equity in a subsidiary not attributable directly or indirectly to the Company, and in respect of which the Group has not agreed any additional terms with the holders of those interests which would result in the Group as a whole having a contractual obligation in respect of those interests that meets the definition of a financial liability. For each business combination involving entities not under common control, the Group can elect to measure any non-controlling interests either at fair value or at the non-controlling interests' proportionate share of the subsidiary's net identifiable assets.

Non-controlling interests are presented in the consolidated statements of financial position within equity, separately from equity attributable to the equity shareholders of the Company. Non-controlling interests in the results of the Group are presented on the face of the consolidated statements of profit or loss and the consolidated statements of profit or loss and other comprehensive income as an allocation of the total profit or loss and total comprehensive income for the year between non-controlling interests and the equity shareholders of the Company. Loans from holders of non-controlling interests and other contractual obligations towards these holders are presented as financial liabilities in the consolidated statements of financial position in accordance with Note 2(p) or 2(q) depending on the nature of the liability.

### (c) Subsidiaries and non-controlling interests (Continued)

Changes in the Group's interests in a subsidiary that do not result in a loss of control are accounted for as equity transactions, whereby adjustments are made to the amounts of controlling and non-controlling interests within consolidated equity to reflect the change in relative interests, but no adjustments are made to goodwill and no gain or loss is recognized.

When the Group loses control of a subsidiary, it is accounted for as a disposal of the entire interest in that subsidiary, with a resulting gain or loss being recognized in profit or loss. Any interest retained in that former subsidiary at the date when control is lost is recognized at fair value and this amount is regarded as the fair value on initial recognition of a financial asset or, when appropriate, the cost on initial recognition of an interest in an associate and a joint venture (Note 2(d)).

In the Company's statements of financial position, an investment in a subsidiary is stated at cost less impairment losses (Note 2(1)), unless the investment is classified as held for sale.

### (d) Associates and joint venture

An associate is an entity in which the Group or Company has significant influence, but not control or joint control, over its management, including participation in the financial and operating policy decisions.

A joint venture is an arrangement whereby the Group or Company and other parties contractually agree to share control of the arrangement, and have rights to the net assets of the arrangement.

An investment in an associate or a joint venture is accounted for in the Historical Financial Information under the equity method, unless it is classified as held for sale. Under the equity method, the investment is initially recorded at cost, adjusted for any excess of the Group's share of the acquisition-date fair values of the investee's identifiable net assets over the cost of the investment (if any). Thereafter, the investment is adjusted for the post acquisition change in the Group's share of the investee's net assets and any impairment loss relating to the investment (Notes 2(g) and 2(l)). Any acquisition-date excess over cost, the Group's share of the post-acquisition, post-tax results of the investees and any impairment losses for the year are recognized in the consolidated statements of profit or loss, whereas the Group's share of the post-acquisition post-tax items of the investees' other comprehensive income is recognized in the consolidated statements of profit or loss and other comprehensive income.

When the Group's share of losses exceeds its interest in the associate or the joint venture, the Group's interest is reduced to nil and recognition of further losses is discontinued except to the extent that the Group has incurred legal or constructive obligations or made payments on behalf of the investee. For this purpose, the Group's interest is the carrying amount of the investment under the equity method together with the Group's long-term interests that in substance form part of the Group's net investment in the associate or the joint venture.

Unrealized profits and losses resulting from transactions between the Group and its associates and joint venture are eliminated to the extent of the Group's interest in the investee, except where unrealized losses provide evidence of an impairment of the asset transferred, in which case they are recognized immediately in profit or loss.

### (d) Associates and joint venture (Continued)

If an investment in an associate becomes an investment in a joint venture or vice versa, retained interest is not remeasured. Instead, the investment continues to be accounted for under the equity method.

In all other cases, when the Group ceases to have significant influence over an associate or joint control over a joint venture, it is accounted for as a disposal of the entire interest in that investee, with a resulting gain or loss being recognized in profit or loss. Any interest retained in that former investee at the date when significant influence is lost is recognized at fair value and this amount is regarded as the fair value on initial recognition of a financial asset.

In the Company's statements of financial position, investments in associates and joint ventures are stated at the cost less impairment losses (Note 2(1)), unless classified as held for sale.

### (e) Business combination for entities under common control

Business combinations arising from transfer of interests in entities that are under the control of the shareholder that controls the Group are accounted for as if the acquisition had occurred at the beginning of the Track Record Period or, if later, at the date that common control was established. The assets and liabilities acquired are recognized at the carrying amounts recognized previously in the Group's shareholder's consolidated financial statements. The components of equity of the acquired entities are added to the same components within the Group's equity and any difference between the net assets acquired and the consideration paid is recognized directly in equity.

### (f) Goodwill

Goodwill represents the excess of

- (i) the aggregate of the fair value of the consideration transferred, the amount of any non-controlling interest in the acquiree and the fair value of the Group's previously held equity interest in the acquiree; over
- (ii) the net fair value of the acquiree's identifiable assets and liabilities measured as at the acquisition date.

When (ii) is greater than (i), then this excess is recognized immediately in profit or loss as a gain on a bargain purchase.

Goodwill is stated at cost less accumulated impairment losses. Goodwill arising on a business combination is allocated to each cash-generating unit, or groups of cash generating units, that is expected to benefit from the synergies of the combination and is tested annually for impairment (Note 2(1)).

On disposal of a cash generating unit during the periods, any attributable amount of purchased goodwill is included in the calculation of the profit or loss on disposal.

### (g) Other investments in equity securities

The Group's and the Company's policies for investments in equity securities, other than investments in subsidiaries and associates and joint venture, are as follows:

Investments in equity securities are initially stated at fair value, which is their transaction price unless it is determined that the fair value at initial recognition differs from the transaction price and that fair value is evidenced by a quoted price in an active market for an identical asset or liability or based on a valuation technique that uses only data from observable markets. Cost includes attributable transaction costs, except where indicated otherwise below. These investments are subsequently accounted for as follows, depending on their classification:

Investments in securities held for trading are classified as current assets. Any attributable transaction costs are recognized in profit or loss as incurred. At the end of each reporting period the fair value is remeasured, with any resultant gain or loss being recognized in profit or loss. The net gain or loss recognized in profit or loss does not include any dividends or interest earned on these investments as these are recognized in accordance with the policies set out in Notes 2(w)(v) and 2(w)(v).

Investments in equity securities that do not have a quoted market price in an active market for an identical instrument and whose fair value cannot be reliably measured are recognized in the statement of financial position at cost less impairment losses (Note 2(1)).

### (h) Investment properties

Investment properties are land and/or buildings which are owned or held under a leasehold interest (Note 2(k)) to earn rental income and/or for capital appreciation. Investment properties are stated at cost less accumulated depreciation and impairment losses (Note 2(l)). The investment properties are depreciated in accordance with the accounting policy set out in Note 2(i). Rental income from investment properties are accounted for as described in Note 2(w)(iv).

### (i) Property, plant and equipment

Property, plant and equipment are initially stated at cost less accumulated depreciation and impairment losses (Note 2(1)).

The cost of self-constructed items of property, plant and equipment includes the cost of materials, direct labor, the initial estimate, where relevant, of the costs of dismantling and removing the items and restoring the site on which they are located, and an appropriate proportion of production overheads and borrowing costs (Note 2(y)).

Gains or losses arising from the retirement or disposal of an item of property, plant and equipment are determined as the difference between the net disposal proceeds and the carrying amount of the item and are recognized in profit or loss on the date of retirement or disposal.

### (i) Property, plant and equipment (Continued)

Depreciation is calculated to write off the cost of items of property, plant and equipment, less their estimated residual value, if any, using the straight-line method over their estimated useful lives as follows:

Buildings and plants	10 - 45 years
Machinery and equipment	3 - 20 years
Office equipment	3 - 15 years
Motor vehicles and others	1 - 20 years
Leasehold improvement	2 - 20 years

Where parts of an item of property, plant and equipment have different useful lives, the cost of the item is allocated on a reasonable basis between the parts and each part is depreciated separately. Both the useful life of an asset and its residual value, if any, are reviewed annually.

### (i) Intangible assets (other than goodwill)

Expenditure on research activities is recognized as an expense in the period in which it is incurred. Expenditure on development activities is capitalized if the product or process is technically and commercially feasible and the Group has sufficient resources and the intention to complete development. The expenditure capitalized includes the costs of materials, direct labor, and an appropriate proportion of overheads and borrowing costs, where applicable (Note 2(y)). Capitalized development costs are stated at cost less accumulated amortization and impairment losses (Note 2(l)). Other development expenditure is recognized as an expense in the period in which it is incurred.

Intangible assets that are acquired by the Group are stated at cost less accumulated amortization (where the estimated useful life is finite) and impairment losses (Note 2(1)).

Amortization of intangible assets with finite useful lives is charged to profit or loss on a straight-line basis over the assets' estimated useful lives. The following intangible assets with finite useful lives are amortized from the date they are available for use and their estimated useful lives are as follows:

Patent and know-how	10 years
Royalty	10 years
Software and others	3 - 12 years

Both the period and method of amortization are reviewed annually.

### (k) Leased assets

An arrangement, comprising a transaction or a series of transactions, is or contains a lease if the Group determines that the arrangement conveys a right to use a specific asset or assets for an agreed period of time in return for a payment or a series of payments. Such a determination is made based on an evaluation of the substance of the arrangement and is regardless of whether the arrangement takes the legal form of a lease.

### (k) Leased assets (Continued)

### (i) Classification of assets leased to the Group

Assets that are held by the Group under leases which transfer to the Group substantially all the risks and rewards of ownership are classified as being held under finance leases. Leases which do not transfer substantially all the risks and rewards of ownership to the Group are classified as operating leases.

### (ii) Operating lease charges

Where the Group has the use of assets held under operating leases, payments made under the leases are charged to profit or loss in equal installments over the accounting periods covered by the lease term, except where an alternative basis is more representative of the pattern of benefits to be derived from the leased asset. Lease incentives received are recognized in profit or loss as an integral part of the aggregate net lease payments made. Contingent rentals are charged to profit or loss in the accounting period in which they are incurred.

Payment made on the acquisition of land held under an operating lease are stated at cost less accumulated amortization and impairment losses (Note 2(1)). Amortization is charged to profit or loss on a straight-line basis over the period of lease term.

### (l) Impairment of assets

### (i) Impairment of investments in equity securities and receivables

Investments in equity securities and other current and non-current receivables that are stated at cost or amortized cost are reviewed at the end of each reporting period to determine whether there is objective evidence of impairment. Objective evidence of impairment includes observable data that comes to the attention of the Group about one or more of the following loss events:

- significant financial difficulty of the debtor;
- a breach of contract, such as a default or delinquency in interest or principal payments;
- it becoming probable that the debtor will enter bankruptcy or other financial reorganization;
- significant changes in the technological, market, economic or legal environment that have an adverse effect on the debtor; and
- a significant or prolonged decline in the fair value of an investment in an equity instrument below its cost.

If any such evidence exists, any impairment loss is determined and recognized as follows:

— For investments in associates and joint venture accounted for under the equity method in the Historical Financial Information (Note 2(d)), the impairment loss is measured by comparing the recoverable amount of the investment with its carrying amount in accordance with Note 2(l)(ii). The impairment loss is reversed if there has been a favorable change in the estimates used to determine the recoverable amount in accordance with Note 2(l)(ii).

- (l) Impairment of assets (Continued)
- (i) Impairment of investments in equity securities and receivables (Continued)
  - For unquoted equity securities carried at cost, the impairment loss is measured as the difference between the carrying amount of the financial asset and the estimated future cash flows, discounted at the current market rate of return for a similar financial asset where the effect of discounting is material. Impairment losses for equity securities carried at cost are not reversed.
  - For trade and other receivables and other financial assets carried at amortized cost, the impairment loss is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows, discounted at the financial asset's original effective interest rate (i.e. the effective interest rate computed at initial recognition of these assets), where the effect of discounting is material. This assessment is made collectively where these financial assets share similar risk characteristics, such as similar past due status, and have not been individually assessed as impaired. Future cash flows for financial assets which are assessed for impairment collectively are based on historical loss experience for assets with credit risk characteristics similar to the collective group.

If in a subsequent period the amount of an impairment loss decreases and the decrease can be linked objectively to an event occurring after the impairment loss was recognized, the impairment loss is reversed through profit or loss. A reversal of an impairment loss shall not result in the asset's carrying amount exceeding that which would have been determined had no impairment loss been recognized in prior years.

Impairment losses are written off against the corresponding assets directly, except for impairment losses recognized in respect of trade and bill receivables and other receivables, whose recovery is considered doubtful but not remote. In this case, the impairment losses for doubtful debts are recorded using an allowance account. When the Group is satisfied that recovery is remote, the amount considered irrecoverable is written off against trade and bills receivable and other receivables directly and any amounts held in the allowance account relating to that debt are reversed. Subsequent recoveries of amounts previously charged to the allowance account are reversed against the allowance account. Other changes in the allowance account and subsequent recoveries of amounts previously written off directly are recognized in profit or loss.

### (ii) Impairment of other assets

Internal and external sources of information are reviewed at each reporting period to identify indications that the following assets may be impaired or, except in the case of goodwill, an impairment loss previously recognized no longer exists or may have decreased:

- property, plant and equipment;
- investment properties;
- lease prepayments;
- intangible assets;
- goodwill; and

### (l) Impairment of assets (Continued)

### (ii) Impairment of other assets (Continued)

— investments in subsidiaries, a joint venture and associates in the Company's statements of financial position.

If any such indication exists, the asset's recoverable amount is estimated. In addition, for goodwill and intangible assets that are not yet available for use, the recoverable amount is estimated annually whether or not there is any indication of impairment.

### Calculation of recoverable amount

The recoverable amount of an asset is the greater of its fair value less costs of disposal and value in use. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. Where an asset does not generate cash inflows largely independent of those from other assets, the recoverable amount is determined for the smallest group of assets that generates cash inflows independently (i.e. a cash-generating unit).

### Recognition of impairment losses

An impairment loss is recognized in profit or loss if the carrying amount of an asset, or the cash-generating unit to which it belongs, exceeds its recoverable amount. Impairment losses recognized in respect of cash-generating units are allocated first to reduce the carrying amount of any goodwill allocated to the cash-generating unit (or group of units) and then, to reduce the carrying amount of the other assets in the unit (or group of units) on a pro rata basis, except that the carrying value of an asset will not be reduced below its individual fair value less costs of disposal (if measurable) or value in use (if determinable).

### Reversals of impairment losses

In respect of assets other than goodwill, an impairment loss is reversed if there has been a favorable change in the estimates used to determine the recoverable amount. An impairment loss in respect of goodwill is not reversed.

A reversal of an impairment loss is limited to the asset's carrying amount that would have been determined had no impairment loss been recognized in prior years. Reversals of impairment losses are credited to profit or loss in the year in which the reversals are recognized.

### (m) Inventories

Inventories are carried at the lower of cost and net realizable value.

Cost is calculated using the weighted average cost formula and comprises all costs of purchase, costs of conversion and other costs incurred in bringing the inventories to their present location and condition.

### (m) Inventories (Continued)

Net realizable value is the estimated selling price in the ordinary course of business less the estimated costs of completion and the estimated costs necessary to make the sale.

When inventories are sold, the carrying amount of those inventories is recognized as an expense in the period in which the related revenue is recognized. The amount of any write-down of inventories to net realizable value and all losses of inventories are recognized as an expense in the period the write-down or loss occurs. The amount of any reversal of any write-down of inventories is recognized as a reduction in the amount of inventories recognized as an expense in the period in which the reversal occurs.

### (n) Construction contract

Constriction contracts are contracts specifically negotiated with a customer for the construction of an asset or a group of assets, where the customer is able to specify the major structural elements of the design. The accounting policy for contract revenue is set out in Note 2(w)(ii). When the outcome of a construction contract revenue is set out in costs are recognized as an expense by reference to the stage of completion of the contract at the end of the reporting period. When it is probable that total contract costs will exceed total contract revenue, the expected loss is recognized as an expense immediately. When the outcome of a construction contract cannot be estimated reliably, contract costs are recognized as an expense in the period in which they are incurred.

Construction contracts in progress at the end of the reporting period are recorded at the net amount of costs incurred plus recognized profits less recognized losses and progress billings, and are presented in the statement of financial position as the "Gross amounts due from customers for contract work" (as an asset) or the "Gross amounts due to customer for contract work" (as an liability), as applicable. Progress billings not yet paid by the customers are included in "Trade and bill receivables". Amounts received before the related work is performed are presented as "Receipts in advance" in "Accruals and other payables".

### (o) Trade and other receivables

Trade and other receivables are initially recognized at fair value and thereafter stated at amortized cost using the effective interest method, less allowance for impairment of doubtful debts (Note 2(1)), except where the receivables are interest-free loans made to related parties without any fixed repayment terms or the effect of discounting would be immaterial. In such cases, the receivables are stated at cost less allowance for impairment of doubtful debts.

### (p) Interest-bearing borrowings

Interest-bearing borrowings are recognized initially at fair value less attributable transaction costs. Subsequent to initial recognition, interest-bearing borrowings are stated at amortized cost with any difference between the amount initially recognized and redemption value being recognized in profit or loss over the period of the borrowings, together with any interest and fees payable, using the effective interest method.

### (q) Trade and other payables

Trade and other payables are initially recognized at fair value. Trade and other payables are subsequently stated at amortized cost using the effective interest method unless the effect of discounting would be immaterial, in which case they are stated at cost.

### (r) Cash and cash equivalents

Cash and cash equivalents comprise cash at bank and on hand, demand deposits with banks and other financial institutions, and short-term, highly liquid investments that are readily convertible into known amounts of cash and which are subject to an insignificant risk of changes in value, having been within three months of maturity at acquisition.

### (s) Employee benefits

### (i) Short term employee benefits and contributions to defined contribution retirement plans

Salaries, annual bonuses, paid annual leave, contributions to defined contribution retirement plans and the cost of non-monetary benefits are accrued in the year in which the associated services are rendered by employees. Where payment or settlement is deferred and the effect would be material, these amounts are stated at their present values.

### (ii) Defined benefit retirement plan obligations

The Group's net obligation in respect of defined benefit retirement plans is calculated separately for each plan by estimating the amount of future benefit that employees have earned in return for their service in the current and prior periods; that benefit is discounted to determine the present value and the fair value of any plan assets is deducted. The calculation is performed by a qualified actuary using the projected unit credit method. When the calculation results in a benefit to the Group, the recognized asset is limited to the present value of economic benefits available in the form of any future refunds from the plan or reductions in future contributions to the plan.

Service cost and net interest expense (income) on the net defined benefit liability (asset) are recognized in profit or loss and allocated to "administrative expenses". Current service cost is measured as the increase in the present value of the defined benefit obligation resulting from employee service in the current period. When the benefits of a plan are changed, or when a plan is curtailed, the portion of the changed benefit related to past service by employees, or the gain or loss on curtailment, is recognized as an expense in profit or loss at the earlier of when the plan amendment or curtailment occurs and when related restructuring costs or termination benefits are recognized. Net interest expense (income) for the period is determined by applying the discount rate used to measure the defined benefit obligation at the beginning of the reporting period to the net defined benefit liability (asset). The discount rate is the yield at the end of the reporting period on high quality corporate bonds that have maturity dates approximating the terms of the Group's obligations.

Remeasurements arising from defined benefit retirement plans are recognized in other comprehensive income and reflected immediately in retained earnings. Remeasurements comprise actuarial gains and losses, the return on plan assets (excluding amounts included in net interest on the net defined benefit liability (asset)) and any change in the effect of the asset ceiling (excluding amounts included in net interest on the net defined benefit liability (asset)).

### (s) Employee benefits (Continued)

### (iii) Termination benefits

Termination benefits are recognized at the earlier of when the Group can no longer withdraw the offer of those benefits and when it recognizes restructuring costs involving the payment of termination benefits.

### (t) Income tax

Income tax for the year comprises current tax and movements in deferred tax assets and liabilities. Current tax and movements in deferred tax assets and liabilities are recognized in profit or loss except to the extent that they relate to business combinations, items recognized in other comprehensive income or directly in equity, in which case the relevant amounts of tax are recognized in other comprehensive income or directly in equity, respectively.

Current tax is the expected tax payable on the taxable income for the year, using tax rates enacted or substantively enacted at the end of the reporting period, and any adjustment to tax payable in respect of previous years.

Deferred tax assets and liabilities arise from deductible and taxable temporary differences respectively, being the differences between the carrying amounts of assets and liabilities for financial reporting purposes and their tax bases. Deferred tax assets also arise from unused tax losses and unused tax credits.

Apart from certain limited exceptions, all deferred tax liabilities, and all deferred tax assets to the extent that it is probable that future taxable profits will be available against which the asset can be utilized, are recognized. Future taxable profits that may support the recognition of deferred tax assets arising from deductible temporary differences include those that will arise from the reversal of existing taxable temporary differences, provided those differences relate to the same taxation authority and the same taxable entity, and are expected to reverse either in the same period as the expected reversal of the deductible temporary difference or in periods into which a tax loss arising from the deferred tax asset can be carried back or forward. The same criteria are adopted when determining whether existing taxable temporary differences support the recognition of deferred tax assets arising from unused tax losses and credits, that is, those differences are taken into account if they relate to the same taxation authority and the same taxable entity, and are expected to reverse in a period, or periods, in which the tax loss or credit can be utilized.

The limited exceptions to recognition of deferred tax assets and liabilities are those temporary differences arising from goodwill not deductible for tax purpose, the initial recognition of assets or liabilities that affect neither accounting nor taxable profit (provided they are not part of a business combination), and temporary differences relating to investments in subsidiaries to the extent that, in the case of taxable differences, the Group controls the timing of the reversal and it is probable that the differences will not reverse in the foreseeable future, or in the case of deductible differences, unless it is probable that they will reverse in the future.

The amount of deferred tax recognized is measured based on the expected manner of realization or settlement of the carrying amount of the assets and liabilities, using tax rates enacted or substantively enacted at the end of the reporting period. Deferred tax assets and liabilities are not discounted.

### (t) Income tax (Continued)

The carrying amount of a deferred tax asset is reviewed at the end of each reporting period and is reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow the related tax benefit to be utilized. Any such reduction is reversed to the extent that it becomes probable that sufficient taxable profits will be available to allow the related tax benefit to be utilized. Any such reduction is reversed to the extent that it comes probable that sufficient taxable profits will be available.

Current tax balances and deferred tax balances, and movements therein, are presented separately from each other and are not offset. Current tax assets are offset against current tax liabilities, and deferred tax assets against deferred tax liabilities, if the Company or the Group has the legally enforceable right to set off current tax assets against current tax liabilities and the following additional conditions are met:

- in the case of current tax assets and liabilities, the Company or the Group intends either to settle on a net basis, or to realize the asset and settle the liability simultaneously; or
- in the case of deferred tax assets and liabilities, if they relate to income taxes levied by the same taxation authority on either:
  - the same taxable entity; or
  - different taxable entities, which, in each future period in which significant amounts of deferred tax liabilities or assets are expected to be settled or recovered, intend to realize the current tax assets and settle the current tax liabilities on a net basis or realize and settle simultaneously.

### (u) Provisions and contingent liabilities

Provisions are recognized for liabilities of uncertain timing or amount when the Company or the Group has a legal or constructive obligation arising as a result of a past event, it is probable that an outflow of economic benefits will be required to settle the obligation and a reliable estimate can be made. Where the time value of money is material, provisions are stated at the present value of the expenditure expected to settle the obligation.

Where it is not probable that an outflow of economic benefits will be required, or the amount cannot be estimated reliably, the obligation is disclosed as a contingent liability, unless the probability of outflow of economic benefits is remote. Possible obligations, whose existence will only be confirmed by the occurrence or non-occurrence of one or more future events are also disclosed as contingent liabilities unless the probability of outflow of economic benefits is remote.

### (v) Obligations for reclamation

The Group's obligations for reclamation consist of estimated expenditures for retirement of its radioactive production facilities in accordance with the relevant rules and regulations in the PRC. The Group estimates its liabilities for reclamation based on detailed calculations of the amount and timing of the future expenditures to perform the required work. Estimated expenditures have taken into account of inflation, then discounted at a discount rate that reflects current market assessments of the

### (v) Obligations for reclamation (Continued)

time value of money and the risks specific to the liability such that the amount of provision reflects the present value of the expenditures expected to be required to settle the obligation. The Group records a corresponding asset associated with the liability for reclamation of radioactive production facilities, which is included in property, plant and equipment. The obligation and corresponding asset are recognized in the period in which the liability is incurred. The asset is depreciated using the straight line method over the expected useful life of radioactive production facilities and the liability is accreted to the projected spending date. As changes in estimates occur (such as changes in estimated costs or changes in timing of the performance of reclamation activities), the revisions to the obligation and the corresponding asset are remeasured at the appropriate discount rate and any gain or loss on remeasurement is recognized in profit or loss.

### (w) Revenue recognition

Revenue is measured at the fair value of the consideration received or receivable. Provided it is probable that the economic benefits will flow to the Group and the revenue and costs, if applicable, can be measured reliably, revenue is recognized in profit or loss as follows:

### (i) Sale of goods

Revenue is recognized when goods are delivered at the customers' premises which is taken to be the point in time when the customer has accepted the goods and the related risks and rewards of ownership. Revenue excludes value added tax ("VAT") and is after deduction of any trade discounts.

### (ii) Contract revenue

When the outcome of a construction contract can be estimated reliably, revenue from a fixed price contract is recognized using the percentage of completion method, measured by reference to the percentage of contract costs incurred to date to estimated total contract costs for the contract.

When the outcome of a construction contract cannot be estimated reliably, revenue is recognized only to the extent of contract costs incurred that it is probable will be recoverable.

### (iii) Rendering of services

Revenue from irradiation services and other services rendered is recognized upon the delivery or performance of the services.

### (iv) Rental income from operating leases

Rental income receivable under operating leases is recognized in profit or loss in equal installments over the periods covered by the lease term, except where an alternative basis is more representative of the pattern of benefits to be derived from the use of the leased asset. Lease incentives granted are recognized in profit or loss as an integral part of the aggregate net lease payments receivable. Contingent rentals are recognized as income in the accounting period in which they are earned.

### **APPENDIX I**

### 2 SIGNIFICANT ACCOUNTING POLICIES (Continued)

### (w) Revenue recognition (Continued)

### (v) Dividends

- Dividend income from unlisted investments is recognized when the shareholder's right to receive payment is established.
- Dividend income from listed investments is recognized when the share price of the investment goes ex-dividend.

### (vi) Interest income

Interest income is recognized as it accrues using the effective interest method.

### (vii) Government grants

Government grants are recognized in the statement of financial position initially when there is reasonable assurance that they will be received and that the Group will comply with the conditions attaching to them. Grants that compensate the Group for expenses incurred are recognized as income in profit or loss on a systematic basis in the same periods in which the expenses are incurred. Grants that compensate the Group for the cost of an asset are initially recognized as deferred income and are subsequently recognized in profit or loss over the useful life of the asset.

### (x) Translation of foreign currencies

Foreign currency transactions during the year are translated at the foreign exchange rates ruling at the transaction dates. Monetary assets and liabilities denominated in foreign currencies are translated at the foreign exchange rates ruling at the end of the reporting period. Exchange gains and losses are recognized in profit or loss.

Non-monetary assets and liabilities that are measured in terms of historical cost in a foreign currency are translated using the foreign exchange rates ruling at the transaction dates.

The results of foreign operations are translated into RMB at the exchange rates approximating the foreign exchange rates ruling at the dates of the transactions.

### (y) Borrowing costs

Borrowing costs that are directly attributable to the acquisition, construction or production of an asset which necessarily takes a substantial period of time to get ready for its intended use or sale are capitalized as part of the cost of that asset. Other borrowing costs are expensed in the period in which they are incurred.

The capitalization of borrowing costs as part of the cost of a qualifying asset commences when expenditure for the asset is being incurred, borrowing costs are being incurred and activities that are necessary to prepare the asset for its intended use or sale are in progress. Capitalization of borrowing costs is suspended or ceases when substantially all the activities necessary to prepare the qualifying asset for its intended use or sale are interrupted or complete.

### (z) Related parties

- (i) A person, or a close member of that person's family, is related to the Group if that person:
  - (a) has control or joint control over the Group;
  - (b) has significant influence over the Group; or
  - (c) is a member of the key management personnel of the Group or the Group's parent.
- (ii) An entity is related to the Group if any of the following conditions applies:
  - (a) The entity and the Group are members of the same group.
  - (b) One entity is an associate or joint venture of the other entity (or an associate or joint venture of a member of a group of which the other entity is a member).
  - (c) Both entities are joint ventures of the same third party.
  - (d) One entity is a joint venture of a third entity and the other entity is an associate of the third entity.
  - (e) The entity is a post-employment benefit plan for the benefit of employees of either the Group or an entity related to the Group.
  - (f) The entity is controlled or jointly controlled by a person identified in (i).
  - (g) A person identified in (i)(a) has significant influence over the entity or is a member of the key management personnel of the entity (or of a parent of the entity).
  - (h) The entity, or any member of a group of which it is a part, provides key management personnel services to the Group or to the Group's parent.

Close members of the family of a person are those family members who may be expected to influence, or be influenced by, that person in their dealings with the entity.

### (aa) Segment reporting

Operating segments, and the amounts of each segment item reported in the Historical Financial Information are identified from the financial information provided regularly to the Group's most senior executive management for the purposes of allocating resources to, and assessing the performance of, the Group's various lines of business and geographical locations.

Individually material operating segments are not aggregated in the Historical Financial Information unless the segments have similar economic characteristics and are similar in respect of the nature of products and services, the nature of production processes, the type or class of customers, the methods used to distribute the products or provide the services, and the nature of the regulatory environment. Operating segments which are not individually material may be aggregated if they share a majority of these criteria.

### 3 ACCOUNTING JUDGMENTS AND ESTIMATES

Note 32(d) contains information about the assumptions and their risk factors relating to fair value of financial instruments. Other key sources of estimation uncertainty are as follows:

### (a) Impairment loss for doubtful debts

The Group estimates impairment losses for doubtful debts resulting from the inability of the customers and other debtors to make the required payments. The assessment includes a specific element based on individual debtors and a collective element based on groups of debtors with similar credit risk characteristics. The Group bases the estimates on the aging of the receivable balance, debtors' credit-worthiness, historical write-off experience and relevant current factors relating to the collectively assessed debtors. If the financial condition of the customers and debtors were to deteriorate, actual write-offs would be higher than estimated.

### (b) Depreciation

Property, plant and equipment and investment property are depreciated on a straight-line basis over their estimated useful lives, after taking into account the estimated residual values, if any. The Group reviews the estimated useful lives and residual values, if any, of the property, plant and equipment and investment property regularly in order to determine the amount of depreciation expense to be recorded during any reporting period. The determination of useful lives and residual values, if any, are based on the historical experience with similar assets and taking into account anticipated technological changes. The depreciation expense for future periods is adjusted if there are significant changes from previous estimates.

### (c) Recognition of deferred tax assets

Deferred tax assets in respect of unused tax losses and deductible temporary differences are recognized and measured based on the expected manner of realization or settlement of the carrying amount of the assets, using tax rates enacted or substantively enacted at the end of reporting period. In determining the carrying amounts of deferred assets, expected taxable profits are estimated which involves a number of assumptions relating to the operating environment of the Group and require a significant level of judgment exercised by the directors. Any change in such assumptions and judgment would affect the carrying amounts of deferred tax assets to be recognized and hence the net profit in future years.

### (d) Obligation for reclamation

The estimation of the liabilities for reclamation and disposal of the radioactive production facilities involves the estimates of the amount and timing of future expenditures as well as rate of inflation and the discount rate used for reflecting current market assessments of the time value of money and the risks specific to the liability. The Group considers the factors including future production plan, useful life of relevant assets, and level of radioactivity to determine the scope, amount and timing of reclamation and disposal of the radioactive production facilities to be performed. Determination of the effect of these factors involves judgments from the Group and the estimated liabilities may turn out to be different from the actual expenditure to be incurred. The discount rate used by the Group may also be altered to reflect the changes in the market assessments of the time value of money and the risks specific to the liability, such as change of the borrowing rate and inflation rate in the market. As changes in estimates occur (such as changes in estimated costs, or changes in

### 3 ACCOUNTING JUDGMENTS AND ESTIMATES (Continued)

### (d) Obligation for reclamation (Continued)

timing of the performance of reclamation activities), the revisions to the obligation will be remeasured at the appropriate discount rate and any gain or loss on remeasurement is recognized in profit or loss.

### 4 REVENUE AND SEGMENT REPORTING

### (a) Revenue

The Group is principally engaged in research, development, manufacturing and sale of a broad range of pharmaceuticals and radioactive source products, and also design, manufacturing, construction and installation of gamma ray irradiation facilities, provision of irradiation service for sterilization purpose as well as independent clinical laboratory services.

The amounts of each significant category of revenue recognized during the Track Record Period are as follows:

	Years ended December 31,		
	2015	2016	2017
	RMB'000	RMB'000	RMB'000
Sales of goods			
—pharmaceuticals	1,752,010	1,952,932	2,244,259
—radioactive source products	240,605	249,839	246,468
Rendering of services			
—irradiation services	38,505	44,320	52,991
—technical services	56,211	56,063	55,253
—others	55,433	53,183	60,121
Revenue from construction contracts	9,370	6,785	12,953
	2,152,134	2,363,122	2,672,045

During the Track Record Period, the Group's customer base was diversified and there was no customer with whom transactions had exceeded 10% of the Group's revenue in the respective years. Details of the concentration of credit risk arising from the Group's customers are set out in Note 32(a).

### (b) Segment reporting

The Group manages its businesses by divisions, which are mainly organized by business lines (products and services). In a manner consistent with the way in which information is reported internally to the Group's most senior executive management for the purposes of resource allocation and performance assessment, the Group has presented the following four reportable segments. No operating segments have been aggregated to form the following reportable segments.

- Pharmaceuticals: manufacturing and sale of a range of imaging diagnostic and therapeutic radio pharmaceuticals imaging, UBT diagnostic kits and test analyzers, in vitro immunoassay diagnostic reagents and kits and other products.
- Radioactive source products: sale of medical and industrial radioactive source products and technical services.

### 4 REVENUE AND SEGMENT REPORTING (Continued)

### (b) Segment reporting (Continued)

- Irradiation: provision of irradiation services to manufacturers of medical facilities, pharmaceuticals, cosmetics and food in the PRC for steriliation purposes, and also design, manufacturing and installation of gamma ray irradiation facilities to irradiation service providers.
- Independent clinical laboratory services and other businesses: provision of independent clinical laboratory services for customers. Others mainly represented agent service for trading of copper which has been abandoned in April 2016 and other miscellaneous services.

### (i) Segment results, assets and liabilities

For the purposes of assessing segment performance and allocating resources among segments, the Group's senior executive management monitors the results attributable to each reportable segment on the following basis:

Revenue and expenses are allocated to the reportable segments with reference to revenue generated by those segments and the expenses incurred by those segments. The measure used for reporting segment profit is gross profit. The Group's other income and expense items, such as other income, selling and distribution expenses, administrative and other operating expenses, and assets and liabilities, are not measured under individual segments. Accordingly, neither information on segment assets and liabilities nor information concerning capital expenditure, interest income and interest expenses is presented.

Information regarding the Group's reportable segments as provided to the Group's most senior executive management for the purpose of resource allocation and assessment of segment performance for the Track Record Period is set out below.

		Year ended December 31, 2015			
	Pharmaceuticals	Radioactive source products	Irradiation	Independent clinical laboratory services and other businesses	Total
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
Revenue from external customers	1,773,631	275,195	47,875	55,433	2,152,134
Inter-segment revenue	5,668	33,306	_	12,054	51,028
Reportable segment revenue	1,779,299	308,501	47,875	67,487	2,203,162
Reportable segment profit (gross profit)	1,320,111	133,463	18,015	23,704	1,495,293
		Year ended	December 31,	2016	
	Pharmaceuticals	Year ended  Radioactive source products	December 31,	2016  Independent clinical laboratory services and other businesses	Total
	Pharmaceuticals RMB'000	Radioactive	,	Independent clinical laboratory services and	Total
Revenue from external customers		Radioactive source products	Irradiation	Independent clinical laboratory services and other businesses	
Revenue from external customers  Inter-segment revenue	RMB'000	Radioactive source products	Irradiation RMB'000	Independent clinical laboratory services and other businesses RMB'000	RMB'000
	RMB'000 1,971,096	Radioactive source products RMB'000 287,738	Irradiation RMB'000	Independent clinical laboratory services and other businesses RMB'000 53,183	RMB'000 2,363,122
Inter-segment revenue	RMB'000 1,971,096 3,125	Radioactive source products RMB'000 287,738 22,028	Irradiation RMB'000 51,105	Independent clinical laboratory services and other businesses RMB'000 53,183 11,844	RMB'000 2,363,122 36,997

### 4 REVENUE AND SEGMENT REPORTING (Continued)

### (b) Segment reporting (Continued)

### (i) Segment results, assets and liabilities (Continued)

	Year ended December 31, 2017				
	Pharmaceuticals	Radioactive source products	Irradiation	Independent clinical laboratory services and other businesses	Total
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
Revenue from external customers	2,253,758	292,222	65,944	60,121	2,672,045
Inter-segment revenue	2,588	21,178	708	45,447	69,921
Reportable segment revenue	2,256,346	313,400	66,652	105,568	2,741,966
Reportable segment profit (gross profit)	1,676,291	138,526	21,657	61,926	1,898,400

### (ii) Reconciliation of reportable segment profit (gross profit)

	Years ended December 31,		
	2015	2015 2016	2017
	RMB'000	RMB'000	RMB'000
Reportable segment profit (gross profit)	1,495,293	1,672,629	1,898,400
Elimination of inter-segment profit (gross profit)	(8,093)	(8,269)	(13,614)
Consolidated gross profit	1,487,200	1,664,360	1,884,786

### (iii) Geographic information

All of the Group's operations are carried out and most of the Group's customers are located in the PRC. The Group's non-current assets, including property, plant and equipment, investment property, lease prepayments and intangible assets are all located or allocated to operations located in the PRC.

### 5 OTHER INCOME

	Years	Years ended December 31,		
	2015	2016	2017	
	RMB'000	RMB'000	RMB'000	
Government grants	4,618	7,291	9,026	
Interest income	6,089	7,285	15,904	
Rental income from operating leases	5,721	7,052	6,691	
Net gain/(loss) on disposal of property, plant and equipment	356	2,395	(1,190)	
Net gain on disposal of long-term investments	1,308	_	_	
Distributions from unquoted equity investments	1,408	563	1,683	
Others	981	1,621	3,851	
	20,481	<u>26,207</u>	35,965	

### 6 PROFIT BEFORE TAXATION

Profit before taxation is arrived at after charging:

### (a) Finance costs

	Years ended December 31,					
	2015	2015 2016		2016	2016 201	2017
	RMB'000	RMB'000	RMB'000			
Interests on borrowings	5,053	9,001	2,234			
Net foreign exchange loss	1,556	1,101	151			
Interest accretion on reclamation obligations, net	2,858	3,112	3,314			
Interest cost on defined benefit retirement plans (Note 27)	1,060	1,177	1,396			
	10,527	14,391	7,095			

### (b) Staff costs

Years ended December 31,		
2015	2016	2017
RMB'000	RMB'000	RMB'000
265,319	273,459	278,754
20,588	23,482	34,163
241	304	602
286,148	297,245	313,519
	2015 RMB'000 265,319 20,588 241	2015         2016           RMB'000         RMB'000           265,319         273,459           20,588         23,482           241         304

### (c) Other items

	Years ended December 31,		
	2015	2016	2017
	RMB'000	RMB'000	RMB'000
Depreciation (Note 11)	51,379	61,561	63,823
Amortization			
—lease prepayments (Note 12)	1,408	1,579	1,660
—intangible assets (Note 13)	999	2,005	2,449
Impairment losses			
—trade and bill receivables (Note 20)	14,652	11,386	14,538
—prepayments, deposits and other receivables	321	397	448
Auditors' remuneration			
—statutory audit services	398	947	407
Research and development costs (other than amortization costs)	44,579	58,717	73,452
Increase in provisions for reclamation obligations	5,465	6,713	5,621
Operating lease charges: minimum lease payment	6,473	7,581	7,025
Cost of inventories # (Note 19(b))	570,631	599,231	660,993

<sup>#</sup> Cost of inventories includes RMB177,818,000, RMB190,290,000 and RMB199,807,000 relating to staff costs, depreciation and amortization expenses and operating lease charges for the years ended December 31, 2015, 2016 and 2017, respectively, which are also included in the respective total amounts disclosed separately above or in Note 6(b) for each of these types of expenses.

### 7 INCOME TAX IN THE CONSOLIDATED STATEMENTS OF PROFIT OR LOSS

### (a) Taxation in the consolidated statements of profit or loss represent:

Years ended December 31,				
2015	2015	2015	2016	2017
RMB'000	RMB'000	RMB'000		
87,947	89,679	113,303		
124	149	3,474		
88,071	89,828	116,777		
(12,619)	(11,581)	(34,451)		
75,452	78,247	82,326		
	2015 RMB'000 87,947 124 88,071 (12,619)	2015         2016           RMB'000         RMB'000           87,947         89,679           124         149           88,071         89,828           (12,619)         (11,581)		

### (b) Reconciliation between tax expenses and accounting profits at applicable tax rates:

	Years ended December 31,		
	2015	2016	2017
	RMB'000	RMB'000	RMB'000
Profit before taxation	485,834	512,749	557,964
National tax on profit before taxation at PRC statutory tax rate	121,459	128,187	139,491
Tax effect of non-deductible expenses	3,395	1,991	2,367
Tax effect of non-taxable income	(8,790)	(7,356)	(9,422)
Tax effect of unused tax losses and temporary differences not recognized	3,132	3,214	2,368
Tax concessions (Note (ii))	(41,483)	(46,693)	(47,906)
Tax effect of unused tax losses and temporary differences not recognized in previous year			
but utilized in current year	(2,385)	(1,245)	(602)
Effect on deferred tax balances at January 1 resulting from a change in tax rate	_	_	(7,444)
Under provision in respect of prior years	124	149	3,474
Actual tax expense	75,452	78,247	82,326

### Notes:

### 8 EARNINGS PER SHARE

The calculation of basic earnings per share during the Track Record Period is based on the profit attributable to equity shareholders of the Company of RMB254,205,000, RMB262,108,000 and RMB271,454,000 and the weighted average number of ordinary shares in issue of 200,000,000, 200,000,000 and 232,034,000 for the years ended December 31, 2015, 2016 and 2017, respectively.

### Weighted average number of ordinary shares

	Years ended December 31,		
	2015	2016 '000	2017 '000
Ordinary shares at January 1	200,000	200,000	200,000
Effect of issue of ordinary shares			32,034
Weighted average number of ordinary shares at December 31	200,000	200,000	232,034

The Company did not have any potential dilutive shares throughout the Track Record Period. Accordingly, diluted earnings per share is the same as basic earnings per share.

<sup>(</sup>i) The Company and its subsidiaries established in the PRC are subject to PRC Corporate Income Tax rate of 25% during the Track Record Period.

<sup>(</sup>ii) Certain subsidiaries of the Group are approved High and New Technology Enterprises and are subject to a preferential PRC Corporate Income Tax rate of 15% during the approved period, subject to fulfillment of recognition criteria.

### 9 DIRECTORS' AND SUPERVISORS' EMOLUMENTS

Details of the directors' and supervisors' emoluments during the Track Record Period are as follows:

Year	ended	December	31,	2015

	Directors' and supervisors' fees	Salaries, allowances and benefits in kind	Discretionary bonuses	Retirement scheme contributions	Total
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
Directors					
Mr Zhang Zhiren	_	96	_	29	125
Mr Wang Guoguang	_	176	297	79	552
Mr Zhou Liulai	_	_	_	_	_
Mr Luo Qi	_	_	_	_	_
Mr Ye Qin	_	_	_	_	_
Supervisors					
Mr Tian Jianchun	_	160	421	45	626
Mr Guo Chunsheng		170	406	69	645
Total		602	1,124	222	1,948

### Year ended December 31, 2016

	Directors' and supervisors' fees	Salaries, allowances and benefits in kind	Discretionary bonuses	Retirement scheme contributions	Total
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
Directors					
Mr Zhang Zhiren (resigned on February 28,					
2016)	_	16	_	29	45
Mr Wang Guoguang	_	52	96	17	165
Mr Zhou Liulai	_	_	_	_	_
Mr Luo Qi	_	_	_	_	_
Mr Ye Qin	_	_	_	_	_
Supervisors					
Mr Tian Jianchun	_	160	421	51	632
Mr Guo Chunsheng		170	409	74	653
Total	_	398	926	171	1,495

### 9 DIRECTORS' AND SUPERVISORS' EMOLUMENTS (Continued)

	Year ended December 31, 2017				
	Directors' and supervisors' fees	Salaries, allowances and benefits in kind	Discretionary bonuses	Retirement scheme contributions	Total
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
Directors					
Mr Meng Yanbin (appointed on February 28,					
2017)	_	207	335	52	594
Mr Wu Jian (appointed on February 28,					
2017)	_	201	341	59	601
Mr Du Jin (appointed on February 28, 2017)	_	219	366	67	652
Mr Guo Qingliang (appointed on February 28,					
2017)	_	_	_	_	_
Mr Meng Yan (appointed on February 28,		120			120
2017)	_	138	_	_	138
Mr Chen Yisheng (appointed on February 28,		4.4			
2017)	_	165	_	_	165
Mr Wang Guoguang	_	_	_	_	
Mr Zhou Liulai	_	_	_	_	_
Mr Luo Qi	_	_	_	_	
Mr. Ye Qin (resigned on February 28, 2017)	_	_	_	_	
Supervisors					
Mr Tian Jianchun (resigned on February 28,		20	62	0	00
2017)	_	28	62	8	98
Mr Guo Chunsheng (resigned on Februry 28,		20	70	10	110
2017)	_	28	78	12	118
Mr Li Guoxiang (appointed on February 28,		220	261	5.4	5.4.4
2017)	_	229	261	54	544
Mr Zhang Yiming (appointed on February 28,		245	122	5.1	410
2017)	_	245	122	51	418
Mr Zhang Qingjun (appointed on February 28,					
2017)	_	_	_	_	_
Mr Liu Zhonglin (appointed on February 28, 2017)					
	_	_	_	_	_
Mr Chen Shoulei (appointed on February 28, 2017)					
,					
Total		1,460	1,565	303	3,328

During the Track Record Period, no emoluments were paid by the Group to the directors or the supervisors as an inducement to join or upon joining the Group or as compensation for loss of office. No remuneration was paid to independent non-executive directors during the Track Record Period as the independent non-executive directors were appointed subsequent to the Track Record Period.

### 10 INDIVIDUALS WITH HIGHEST EMOLUMENTS

During the Track Record Period, of the five individuals with the highest emoluments, three, two and one are directors and supervisors of the Company for the years ended December 31, 2015, 2016 and 2017, respectively, whose emoluments are disclosed in Note 9. The aggregate of the emoluments in respect of the remaining highest paid individuals are as follows:

Years ended December 31,			
2015	2016	2017	
RMB'000	RMB'000	RMB'000	
316	644	848	
148	191	273	
533	1,103	1,444	
997	1,938	2,565	
	2015 RMB'000 316 148 533	2015         2016           RMB'000         RMB'000           316         644           148         191           533         1,103	

# 10 INDIVIDUALS WITH HIGHEST EMOLUMENTS (Continued)

The emoluments of the individuals with the highest emoluments are within the following band:

	Years	ended Decem	ber 31,
	2015	2016	2017
		Number of individuals	
Nil to HKD 1,000,000	2	3	4

During the Track Record Period, no emoluments were paid by the Group to the five highest paid individuals as an inducement to join or upon joining the Group or as compensation for loss of office.

Property, plant and equipment

PROPERTY, PLANT AND EQUIPMENT AND INVESTMENT PROPERTIES

The Group

				Motor					
	Buildings and plants	Machinery and equipment	Office equipment	vehicles and others	Leasehold improvement	Construction in progress	Sub-total	Investment Properties	Total
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
Cost:									
At January 1, 2015	134,080	420,712		68,082	55,566	119,086	837,987	19,316	857,303
Additions	138	33,915		15,273		134,397	187,841		187,841
Disposals	(4,801)	(17,467)		(841)		(1,786)	(25,497)		(25,497)
Transfer in/(out)	69,289	4,405		3,924	2,300	(79,918)			
At December 31, 2015 and January 1, 2016	198,706	441,565		86,438	57,866	171,779	1,000,331	19,316	1,019,647
Additions	10,992	29,036		8,456	5,224	85,677	144,174	9,445	153,619
Disposals	(23,975)	(5,078)		(1,523)	(2,093)	(4,440)	(38,895)		(38,895)
Transfer in/(out)	23,927	1,516		17,418	2,911	(45,772)			
At December 31, 2016 and January 1, 2017	209,650	467,039	46,980	110,789	63,908	207,244	1,105,610	28,761	1,134,371
Additions	09	38,910		2,530	310	173,685	221,546		221,546
Disposals	(461)	(5,476)		(1,757)			(8,930)		(8,930)
Transfer in/(out)	4,167	71				(3,624)	614	(614)	
At December 31, 2017	213,416	500,544	51,795	111,562	64,218	377,305	1,318,840	28,147	1,346,987

PROPERTY, PLANT AND EQUIPMENT AND INVESTMENT PROPERTIES (Continued)

			Proper	Property, plant and equipment	edunbment				
	Buildings	Machinery		Motor vehicles					
	and plants	and equipment	Office equipment	and others	Leasehold improvement	Construction in progress	Sub-total	Investment properties	Total
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
Accumulated depreciation:									
At January 1, 2015	(56,240)	(268,496)	(24,777)	(31,402)	(37,795)		(418,710)	(10,410)	(429,120)
Charge for the year	(5,116)	(27,248)	(6,298)	(5,810)	(6,317)		(50,789)	(290)	(51,379)
Written back on disposals		16,186	572	768			18,522		18,522
At December 31, 2015 and January 1, 2016	(60,360)	(279,558)	(30,503)	(36,444)	(44,112)		(450,977)	(11,000)	(461,977)
Charge for the year	(8,172)	(35,767)	(2,817)	(8,728)	(5,157)		(60,641)	(920)	(61,561)
Written back on disposals	ı	4,522	1,684	1,362			13,768	17	13,785
At December 31, 2016 and January 1, 2017	(62,332)	(310,803)	(31,636)	(43,810)	(49,269)		(497,850)	(11,903)	(509,753)
Charge for the year	(7,098)	(38,088)	(3,243)	(8,683)	(5,754)		(62,866)	(957)	(63,823)
Written back on disposals		4,819	1,149	1,400			7,721	305	8,026
At December 31, 2017	(69,077)	(344,072)	(33,730)	(51,093)	(55,023)		(552,995)	(12,555)	(565,550)
Carrying amount: At December 31, 2015	138,346	162,007	13,474	49,994	13,754	171,779	549,354	8,316	557,670
	Ш								
At December 31, 2016	147,318	156,236	15,344	626,99	14,639	207,244	092,709	16,858	624,618
At December 31, 2017	144,339	156,472	18,065	60,469	9,195	377,305	765,845	15,592	781,437

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# 11 PROPERTY, PLANT AND EQUIPMENT AND INVESTMENT PROPERTIES (Continued)

The Company

		Pre	operty, plant	t and equip	ment			
	Buildings and plants RMB'000	Machinery and equipment RMB'000	Office equipment RMB'000	Motor vehicles and others RMB'000	Construction in progress RMB'000	Sub-total RMB'000	Investment property RMB'000	Total RMB'000
Cost:								
At January 1, 2015	14,522	20,177	2,979	6,997	100	44,775	3,455	48,230
Additions	_	(2)	285	_	_	285	_	285
Disposals		(3)	(21)			(24)		(24)
At December 31, 2015 and January 1, 2016	14,522	20,174	3,243	6,997	100	45,036	3,455	48,491
Additions		16	228			244		244
Disposals	(13,120)	_	(619)	_	_	(13,739)	_	(13,739)
Transfer in/(out)		_	100	_	(100)	_	_	
At December 31, 2016 and								
January 1, 2017	1,402	20,190	2,952	6,997	_	31,541	3,455	34,996
Additions			875	21		896		896
Disposals	_	_	(507)		_	(507)	_	(507)
At December 31, 2017	1,402	20,190	3,320	7,018		31,930	3,455	35,385
Accumulated depreciation:								
At January 1, 2015	(2,582)	( / /				(11,181)		
Charge for the year	(378)	` ' /	` /	(511)	_	(3,157)	(166)	
Written back on disposals		3	21			24		24
At December 31, 2015 and January 1, 2016	(2,960)	(4,230)	(2,368)	(4,756)		(14,314)	(2,430)	(16,744)
Charge for the year	(378)	(2,018)	(270)	(393)		(3,059)	(166)	(3,225)
Written back on disposals	2,700	(2,010)	588	(373) —	_	3,288	(100) —	3,288
At December 31, 2016 and January 1, 2017	(638)	(6,248)	(2,050)	(5,149)		(14,085)	(2,596)	(16,681)
Charge for the year Written back on disposals	(67)	(1,967)	(345) 487	(394)		(2,773) 487	(166)	(2,939) 487
At December 31, 2017	(705)	(8,215)	(1,908)	(5,543)		(16,371)	(2,762)	(19,133)
Carrying amount:								
At December 31, 2015	11,562	15,944	875	2,241	100	30,722	1,025	31,747
At December 31, 2016	764	13,942	902	1,848		17,456	859	18,315
At December 31, 2017	697	11,975	1,412	1,475		15,559	693	16,252

The Group's and the Company's property, plant and buildings are all allocated in the PRC.

The Group and the Company lease out investment properties and a number of items of machinery and equipment under operating leases. The leases typically run for an initial period of 1 to 3 years, with an option to renew the lease after that date at which time all terms are renegotiated. None of the leases includes contingent rentals.

As at December 31, 2015, 2016 and 2017, the aggregate carrying amounts of the investment property and machinery and equipment of the Group leased out amounted to RMB8,316,000, RMB16,858,000 and RMB15,592,000 respectively.

#### **APPENDIX I**

# 11 PROPERTY, PLANT AND EQUIPMENT AND INVESTMENT PROPERTIES (Continued)

As at the date of this report, the Group has yet to obtain the ownership certificates for certain properties with aggregate carrying amount of RMB14,340,000 as at December 31, 2017. After consulting with the legal advisor of the Group, the directors of the Company are of the opinion that the Group is entitled to lawfully and validly occupy and use the above-mentioned properties without incurring significant costs. The directors of the Company are also of the opinion that the aforesaid matter will not have any significant impact on the Group's financial position as at the end of the reporting period.

The fair value of investment properties of the Group as at December 31, 2015, 2016 and 2017 were RMB20,066,000, RMB33,298,000 and RMB49,777,000.

Total future minimum lease payments under non-cancellable operating leases are receivable as follows:

#### The Group

	As	at December	31,
	2015	2016	2017
	RMB'000	RMB'000	RMB'000
Within 1 year	5,721	7,052	7,576
After 1 year but within 5 years	878	2,591	1,096
	6,599	9,643	8,672

#### 12 LEASE PREPAYMENTS

#### The Group

	Years o	ended Decem	ber 31,
	2015	2016	2017
	RMB'000	RMB'000	RMB'000
Cost:			
At January 1	22,094	51,841	63,980
Additions	29,747	12,139	7,931
At December 31	51,841	63,980	71,911
Accumulated amortization:			
At January 1	(3,336)	(4,744)	(6,323)
Charge for the year	(1,408)	(1,579)	(1,660)
At December 31	(4,744)	(6,323)	(7,983)
Carrying amount	47,097	57,657	63,928

Lease prepayments represent land use right premiums paid by the Group for land located in the PRC.

These land use rights are with lease periods of 30 to 50 years. As at the date of this report, the Group was in the process of applying for the ownership certificates for certain land use rights with aggregate carrying amounts of RMB5,807,000 as at December 31, 2017. After consulting with the legal advisor of the Group, the directors of the Company are of the opinion that the Group is entitled to lawfully and validly occupy and use the above-mentioned land use rights without incurring significant

# 12 LEASE PREPAYMENTS (Continued)

costs. The directors of the Company are also of the opinion that the aforesaid matter will not have any significant impact on the Group's financial position as at the end of the reporting period.

#### 13 INTANGIBLE ASSETS

		The G	roup		The Company
	Patents and know-how	Royalty	Software and others	Total	Software
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
Cost:					
At January 1, 2015	7,062	1,500	3,034	11,596	1,743
Additions	_	_	789	789	324
At December 31, 2015 and January 1, 2016	7,062	1,500	3,823	12,385	2,067
Additions	_	7,980	2,191	10,171	239
At December 31, 2016 and January 1, 2017	7,062	9,480	6,014	22,556	2,306
Additions	19,535	´—	2,225	21,760	1,595
At December 31, 2017	26,597	9,480	8,239	44,316	3,901
Accumulated amortization:					
At January 1, 2015	(3,453)	(1,500)	(1,734)	(6,687)	(562)
Charge for the year	(618)		(381)	(999)	(250)
At December 31 2015 and January 1, 2016	(4,071)	(1,500)	(2,115)	(7,686)	(812)
Charge for the year	(689)	(638)	(678)	(2,005)	(366)
At December 31, 2016 and January 1, 2017	(4,760)	(2,138)	(2,793)	(9,691)	(1,178)
Charge for the year	(690)	(798)	(961)	(2,449)	(481)
At December 31, 2017	(5,450)	(2,936)	(3,754)	(12,140)	(1,659)
Carrying amount:					
At December 31, 2015	2,991		1,708	4,699	1,255
At December 31, 2016	2,302	7,342	3,221	12,865	1,128
At December 31, 2017	21,147	6,544	4,485	32,176	2,242

The amortization charges are included in "cost of sales" in the consolidated statements of profit or loss of the Group.

## 14 INVESTMENTS IN SUBSIDIARIES

# The Company

	As	at December	31,
	2015	2016	2017
	RMB'000	RMB'000	RMB'000
Unlisted shares, at cost	219,125	229,125	271,605
Listed shares, at cost	146,085	146,085	146,085
	365,210	375,210	417,690
Less: impairment loss	(3,700)	(3,700)	(3,700)
	361,510	371,510	413,990

#### 14 INVESTMENTS IN SUBSIDIARIES (Continued)

During the Track Record Period, the Company had direct or indirect interests in the following subsidiaries, all of which were established in the PRC. The particulars of the principal subsidiaries are set out below:

			Proportio	on of owner	ship interest	
Company name	Place and date of establishment	Registered and fully paid-up capital	The Group's effective interest	Held by the Company	Held by subsidiaries	Principal activities
		RMB				
Beijing North Institute of Biological Technology Co. Ltd	The PRC June 6, 1985	18,000,000	100%	100%	_	Production and sale of biopharmaceuticals
Beijing Clae-riar Rediosotope Technique Co., Ltd. (Note (iv))	The PRC September 30, 1992	4,000,000	34.14%	_	50%	Production and sale of radioactive sources
Shanghai Yuanzi Kexing (Note (iv)) 上海原子科興藥業有限公司	The PRC March 23, 1995	84,320,000	47.80%	_	70%	Sale of radioactive medicine
Shenzhen Zhonghe Headway Bio-Sci & Tech Co., Ltd. (Note (iv))	The PRC August 9, 1996	25,000,000	47.76%	34.10%	20%	Production and sale of biopharmaceuticals
HTA (Guangzhou) Isotope Pharmaceutical Co., Ltd	The PRC January 24, 2000	16,800,000	54.62%	_	80%	Production and sale of radioactive medicine
HTA Co., Ltd. (Note (v)) 原子高科股份有限公司	The PRC May 18, 2001	132,560,000	68.28%	68.28%	_	Application of nuclear technology
Anhui Young-Hearty Medical Appliance & Equipment Co., Ltd. (Note (iv)) 安徽養和醫療器械設備有限公司	The PRC July 2, 2002	7,750,000	47.76%	_	100%	Medical diagnostic equipment manufacturing
Chengdu Gaotong Isotope Co., Ltd. (Note (v))	The PRC June 11, 2002	40,000,000	90.38%	90.38%	_	Application of nuclear technology
CNNC Tongxing (Beijing) Nuclear Technology Co., Ltd	The PRC March 12, 2010	30,000,000	51%	51%	_	Application of nuclear technology

#### Notes

- (i) The official names of all these entities are in Chinese. The English translation of these entities are for identification only.
- (ii) The statutory financial statements of the Company and its subsidiaries for the year ended December 31, 2015 were audited by Baker Tilly China Certified Public Accountants LLP (天職國際會計師事務所 (特殊普通合夥)), a certified public accounting firm registered in the PRC. The statutory financial statements of the Company and its subsidiaries for the years ended December 31, 2016 and 2017 were audited by Jonten Certified Public Accountants LLP (中天運會計師事務所 (特殊普通合夥)), a certified public accounting firm registered in the PRC.
- (iii) The statutory financial statements of the Company and its subsidiaries for the years ended December 31, 2015, 2016 and 2017 were prepared in accordance with the Accounting Standards for Business Enterprise applicable to the enterprises in the PRC.
- (iv) The Group is exposed, or has rights, to variable returns from its involvement with these companies and has the ability to affect those returns through its power over these companies since their establishments.
- (v) These subsidiaries represent companies limited by shares established in the PRC. Other subsidiaries are companies with limited liability established in the PRC.

# 14 INVESTMENTS IN SUBSIDIARIES (Continued)

The following table lists out the information relating to subsidiaries of the Group which have material non-controlling interests ("NCI"). The summarized financial information presented below represents the amounts before any intercompany elimination.

HTA Co., Ltd.	As	at December	31,
	2015	2016	2017
	RMB'000	RMB'000	RMB'000
NCI percentage	31.72%	31.72%	31.72%
Current assets	400,529	479,071	529,000
Non-current assets	374,393	389,855	430,679
Current liabilities	(285,684)	(296,284)	(277,894)
Non-current liabilities	(76,698)	(79,617)	(91,845)
Net assets	<u>412,540</u>	493,025	589,940
Carrying amount of NCI	130,858	156,388	187,129
	Years e	ended Decem	ber 31,
	2015	2016	2017
	RMB'000	RMB'000	RMB'000
Revenue	466,973	510,761	604,194
Profit for the year	127,970	146,761	182,904
Profit allocated to NCI	40,592	46,553	58,073
Dividend paid to NCI	8,410	21,024	27,331
Shenzhen Zhonghe Headway Bio-Sci & Tech Co., Ltd.	As	at December	31,
	2015	2016	2017
	RMB'000	RMB'000	RMB'000
NCI percentage	52.24%	52.24%	52.24%
Current assets	637,621	716,708	1,044,526
Non-current assets	114,044	160,946	236,651
Current liabilities	(500,131)	(599,148)	(908,726)
Non-current liabilities	(19,029)	(17,771)	(168,801)
Net assets	232,505	260,735	203,650
Carrying amount of NCI	121,461	136,208	106,387
	Years e	ended Decem	ber 31,
	2015	2016	2017
	RMB'000	RMB'000	RMB'000
Revenue	683,027	794,367	963,848
Profit for the year	116,761	202,760	212,916
Profit allocated to NCI	60,996	105,922	111,227
Dividend paid to NCI	31,344	91,420	141,048

## 15 INTERESTS IN ASSOCIATES

		The Group			The Compan	y
	As	at December	31,	As	at December	31,
	2015	2016	2017	2015	2016	2017
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
Share of net assets	59,601	73,847	81,425	_	_	_
Unlisted investments, at cost				7,393	8,416	10,984
Total	59,601	73,847	81,425	7,393	8,416	10,984

# 15 INTERESTS IN ASSOCIATES (Continued)

The following list contains only the particulars of a material associate of the Group, which is an unlisted entity whose quoted market price is not available:

Company name	Place and date of establishment	Registered and fully paid-up capital	Group's effective interest	Principal activities
Shenzhen CICAM Manufacturing Co., Ltd. 深圳西卡姆同位素有限公司*	The PRC August 31,	USD 1,000,000	49%	Production and sales of fire detector

<sup>\*</sup> The English translation of the name is for identification only. The official name of the entity is in Chinese.

The Group's associates are accounted for using the equity method in the Historical Financial Information.

Summarized financial information of the material associate, adjusted for any differences in accounting policies, and reconciled to the carrying amounts in the Historical Financial Information, are disclosed below:

Shenzhen CICAM Manufacturing Co., Ltd.	As at December 31,				
	2015	2016	2017		
	RMB'000	RMB'000	RMB'000		
Gross amounts					
Current assets	153,052	147,123	159,184		
Non-current assets	26,351	23,849	17,533		
Current liabilities	(57,688)	(32,123)	(30,288)		
Non-current liabilities	(15,168)	(5,318)	(2,672)		
Net assets	106,547	133,531	143,757		
	Years 6	ended Decem	ber 31,		
	2015	2016	2017		
	RMB'000	RMB'000	RMB'000		
Gross amounts					
Revenue	484,789	191,167	230,328		
Profit for the year	28,755	17,107	20,295		
Other comprehensive income	5,707	9,070	(10,066)		
Total comprehensive income	34,462	26,177	10,299		
Reconciled to the Group's interests					
Gross amounts of net assets of the associate	106,547	133,531	143,757		
The Group's effective interest	49%	49%	49%		
The Group's share of net assets	52,208	65,430	70,441		
Carrying amount in the Historical Financial Information	52,208	65,430	70,441		

Aggregate information of associates of the Group that are not individually material:

	As at December 31,			
	2015	2016	2017	
	RMB'000	RMB'000	RMB'000	
Aggregate carrying amount of individually immaterial associates' in the Historical				
Financial Information	7,393	8,417	10,984	
	Years	ended Decem	ber 31,	
	Years 0 2015	2016	aber 31, 2017	
			,	
Aggregate amounts of the Group's share of those associates' profit and total	2015	2016	2017	
Aggregate amounts of the Group's share of those associates' profit and total comprehensive for the year	2015	2016	2017	

#### 16 INTEREST IN A JOINT VENTURE

	The Group  As at December 31,			The Company		
				As	at December	31,
	2015	2016	2017	2015	2016	2017
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
Share of net assets	42,380	36,006	38,774	_	_	_
Unlisted investments, at cost				41,346	34,972	37,739
Total	42,380	36,006	38,774	41,346	34,972	37,739

Details of the Group's interest in the joint venture, which is accounted for using the equity method in the Historical Financial Information, are as follows:

Company name	Place and date of establishment	and fully paid-up capital	effective	Principal activities
Shanghai GMS Pharmaceutical Co., Ltd. 上海欣科醫藥有限公司*	The PRC	USD	49%	Production and
	October 7,	1,530,000		sales of
	1993			bio-pharmaceuticals

<sup>\*</sup> The English translation of the name is for identification only. The official name of the entity is in Chinese.

Shanghai GMS Pharmaceutical Co., Ltd., the only joint venture in which the Group participates, is a private company of which market value is not available.

Summarized financial information of the joint venture, adjusted for any differences in accounting policies, and reconciled to the carrying amounts in the Historical Financial Information, are disclosed below:

Shanghai GMS Pharmaceutical Co., Ltd.	As at December 31,		
	2015 2016 20		2017
	RMB'000	RMB'000	RMB'000
Current assets	118,749	131,151	162,117
Non-current assets	20,786	19,836	23,691
Current liabilities	(52,239)	(75,899)	(105,703)
Non-current liabilities	(806)	(1,606)	(975)
Net assets	86,490	73,482	79,130

	Years ended December 31,			
	2015	2016	2017	
	RMB'000	RMB'000	RMB'000	
Gross Amounts				
Revenue	173,691	195,947	227,515	
Profit and total comprehensive income for the year	33,736	35,225	41,312	
Dividend received	12,250	23,634	17,475	
Reconciled to the Group's interest				
Gross amounts of net assets	86,490	73,482	79,130	
The Group's effective interest	49%	49%	49%	
The Group's share of net assets	42,380	36,006	38,774	
Carrying amount in the Historical Financial Information	42,380	36,006	38,774	

#### 17 GOODWILL

	The Group
	RMB'000
Cost and carrying amount:	
At January 1, 2015, December 31, 2015, 2016 and 2017	5,670

# 17 GOODWILL (Continued)

Goodwill is allocated to the Group's cash-generating units identified according to operation and operating segment as follows:

	The Group
	RMB'000
Pharmaceuticals	4,586
Irradiation	1,084
	5,670

The recoverable amount of the goodwill is determined based on value-in-use calculations. These calculations use cash flow projections based on financial budgets approved by management covering a five-year period. Cash flows beyond the five-year period are extrapolated using estimated weighted average growth rates and the cash flows are discounted using pre-tax discount rates as set out below.

	Years ended December 31,		
	2015	2016	2017
	RMB'000	RMB'000	RMB'000
Estimated weighted average growth rate	0%	0%	0%
Pre-tax discount rate	7.9%	7.9%	7.9%

With regard to the assessment of value in use of the cash-generating units, the directors of the Company are of the opinion that reasonably possible changes in any of the above key assumptions would not cause the carrying value of the units to materially exceed their recoverable amount.

# 18 UNQUOTED EQUITY INVESTMENTS

	The Group  As at December 31,			The Company				
				As	at December	31,		
	2015 2016		2015 2	2015	2017	2015	2016	2017
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000		
Unquoted equity investments, at cost	7,251	47,251	47,251	7,140	47,140	47,140		

The Group and the Company invested RMB40,000,000 and held 4% equity interest in CNNC Financial Leasing Co., Ltd. ("CNNC Financial Leasing Company"), a related party under CNNC, in January 2016.

#### 19 INVENTORIES

#### (a) Inventories comprise:

	The Group  As at December 31,			The Company			
				As at December 31,			
	2015	2015 2016	2017	2015	2016	2017	
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	
Raw materials	97,658	112,455	119,540	_	_	_	
Work in progress	42,523	61,719	60,641	_	_	_	
Finished goods	43,899	40,636	65,531	10,681	11,191	17,828	
Others	4,165	11,657	18,023				
	188,245	226,467	263,735	10,681	11,191	17,828	
Less: write down of inventories	(207)	(733)	(733)	(207)	(207)	(207)	
	188,038	225,734	263,002	10,474	10,984	17,621	

#### **APPENDIX I**

# 19 INVENTORIES (Continued)

# (b) The analyses of the amounts of inventories recognized as expenses and included in the consolidated statements of profit or loss are as follows:

#### The Group

	Years ended December 31,			
	2015	2016	2017	
	RMB'000	RMB'000	RMB'000	
Carrying amount of inventories sold	568,871	599,757	660,993	
Write down of inventories	(207)	(526)	_	
Reversal of write down of inventories	1,967			
	570,631	599,231	660,993	

#### 20 TRADE AND BILL RECEIVABLES

		The Group		T	y	
	As at December 31,			As at December 31,		
	2015	2016	2017	2015	2016	2017
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
Bill receivables	15,275	15,792	22,341	300	4,732	6,428
—related parties under CNNC	13,129	12,055	16,522	3,485	4,286	1,877
—associates and a joint venture	8,948	28,180	46,168	392	800	354
—subsidiaries	_	_	_	16,643	10,255	17,635
—third parties	1,117,192	1,259,115	1,536,383	82,748	87,059	94,963
	1,154,544	1,315,142	1,621,414	103,568	107,132	121,257
Less: allowance for doubtful debts	(89,796)	(100,285)	(114,180)	(5,932)	(6,465)	(6,034)
	1,064,748	1,214,857	1,507,234	97,636	100,667	115,223

All of the trade and bill receivables, net of allowance for doubtful debts, are expected to be recovered within one year.

#### (a) Aging analysis

The aging analyses of trade and bill receivables, based on the invoice dates and net of allowance for doubtful debts, are as follows:

	The Group			The Company			
	As	As at December 31, As at December 31			31,		
	2015	2016	2017	2015	2016	2017	
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	
Within 1 year	959,289	1,085,661	1,352,610	88,234	83,244	104,772	
1 to 2 years	84,917	91,456	118,193	8,890	15,825	10,186	
2 to 3 years	10,395	32,005	22,516	360	1,397	62	
Over 3 years	10,147	5,735	13,915	152	201	203	
	1,064,748	1,214,857	1,507,234	97,636	100,667	115,223	

Further details on the Group's credit policy are set out in Note 32(a).

# (b) Impairment of trade and bill receivables

Impairment losses in respect of trade and bill receivables are recorded using an allowance account unless the Group is satisfied that recovery of the amount is remote, in which case the impairment loss is written off against trade and bill receivables directly (Note 2(1)(i)).

#### **20 TRADE AND BILL RECEIVABLES (Continued)**

#### (b) Impairment of trade and bill receivables (Continued)

Movements in the allowance of doubtful debts during the Track Record Period are set out as follows:

	The Group As at December 31,			The Company As at December 31,			
	2015	2016	2017	2015	2016	2017	
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	
At January 1,	76,663	89,796	100,285	1,444	5,932	6,465	
Impairment loss recognized	14,652	11,386	14,538	4,488	533	_	
Uncollectible accounts written off	(1,519)	(897)	(643)			(431)	
At December 31,	89,796	100,285	114,180	5,932	6,465	6,034	

The Group's trade and bill receivables of RMB161,222,000, RMB166,827,000 and RMB212,973,000 were individually determined to be impaired as at December 31, 2015, 2016 and 2017, respectively. The Company's trade and bill receivables of RMB65,189,000, RMB79,808,000 and RMB87,640,000 were individually determined to be impaired as at December 31, 2015, 2016 and 2017, respectively. The individually impaired receivables related to customers that were in financial difficulties and management assessed that only a portion of the receivables are expected to be recovered consequently, and accordingly, specific allowances for doubtful debts were recognized by the Group and the Company. The Group and the Company does not hold any collateral over these balances.

#### (c) Trade and bill receivables that are not impaired

The aging analyses of trade and bill receivables that are not individually considered to be impaired are as follows:

		The Group			The Company			
	As at December 31,			As at December 31,				
	2015	2016	2017	2015	2016	2017		
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000		
Less than 1 year past due	891,001	1,019,119	1,255,703	34,847	24,480	23,605		
1 to 2 years past due	83,357	91,456	124,264	3,020	1,248	9,747		
2 to 3 years past due	10,271	32,005	22,274	360	1,397	62		
More than 3 years past due	8,693	5,735	6,200	152	199	203		
	993,322	1,148,315	1,408,441	38,379	27,324	33,617		

Receivables that were past due but not individually impaired relate to a number of customers that have a good track record with the Group. Based on past experience, the management believes that no specific impairment allowance is necessary in respect of these balances as there has not been a significant change in credit quality and the balances are still considered recoverable.

# 21 GROSS AMOUNTS DUE FROM/TO CUSTOMERS FOR CONTRACT WORK The Group

	Years e	ended Decem	ber 31,
	2015	2016	2017
	RMB'000	RMB'000	RMB'000
Contract costs incurred plus recognized profits less recognized losses in connection with			
construction contracts in progress	21,586	19,451	4,900
Less: progress billings	(22,428)	(22,156)	(6,716)
	(842)	(2,705)	(1,816)
	As	at December	31,
	2015	2016	2017
	RMB'000	RMB'000	RMB'000
Gross amounts due from customers for contract work (Note (i))	6	467	_
Gross amounts due to customers for contract work	(848)	(3,172)	(1,816)
	(842)	(2,705)	(1,816)

#### Note:

# 22 PREPAYMENTS, DEPOSITS AND OTHER RECEIVABLES

	The Group		The Company		
As	at December	31,	As	at December	31,
2015	2016 2017 2015	2016	2017		
RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
2,510	5,269	4,588	13	1,432	735
_	101	53	_	101	53
_	_	_	516	6,287	168
74,170	47,724	101,931	3,073	4,468	51,441
_	13,120	13,120	_	13,120	13,120
4,258	4,258	4,258	_	_	644
20	_	_	20	_	_
1,671	5,711	2,489	356	4,390	418
383	579	1,164	383	579	1,164
_	_	_	149,186	122,118	87,512
30,045	18,780	26,879	19,071	8,052	4,588
6,748	12,529	23,550	_	_	_
8,342	5,874	5,079	151	57	78
_	_	_	_	22,565	304,823
_	2,643	16,036	_	2,643	16,036
13,256	10,332	11,536	245	294	3,570
141,403	126,920	210,683	173,014	186,106	484,350
	2015 RMB'000  2,510 — 74,170  4,258  20 1,671 383 — 30,045 6,748 8,342 — 13,256	As at December  2015  RMB'000  2,510  2,510  5,269  101  74,170  47,724   13,120  4,258  4,258  20  1,671  383  579  13,045  18,780  6,748  12,529  8,342  5,874   2,643  13,256  10,332	As at December 31,           2015         2016         2017           RMB'000         RMB'000         RMB'000           2,510         5,269         4,588           —         101         53           —         —         —           74,170         47,724         101,931           —         13,120         13,120           4,258         4,258         4,258           20         —         —           1,671         5,711         2,489           383         579         1,164           —         —         —           30,045         18,780         26,879           6,748         12,529         23,550           8,342         5,874         5,079           —         —         —           —         2,643         16,036           13,256         10,332         11,536	As at December 31,         As           2015         2016         2017         RMB'000         R         B'3         —         —         —         516         —         —         20         —         —         20         —         —         —         20         —         —         —         20         —         —         20         —         —         20         —         —         245         —	As at December 31,         As at December 32015           2015         2016         2017         2015         2016         RMB'000         R         201         201         201         201         201         201         201         201         201         201         201         201         201         201         201         201

#### Notes:

<sup>(</sup>i) Gross amounts due from customers for contract work represent unbilled revenue for contract work and are presented as assets in the consolidated statements of financial position. Gross amounts due to customers for contract work represent the amounts billed in advance of the contract work delivered and are presented as liabilities in the consolidated statements of financial position.

<sup>(</sup>i) All of the prepayments, deposits and other receivables are expected to be recovered or recognized as expenses within one year.

<sup>(</sup>ii) As at December 31, 2015, 2016 and 2017, deposits mainly represent rental deposit, deposits made to obtain land use rights and deposits for bidding.

<sup>(</sup>iii) The balance will either be recognized as expenses or transferred to the capital reserve account within equity upon the listing of the Company's shares on the Stock Exchange.

Rorrowings

#### 23 CASH AT BANK AND ON HAND AND OTHER CASH FLOW INFORMATION

#### (a) Cash at bank and on hand comprised:

	The Group			The Company			
	As	at December 31, As at December			31,		
	2015	2016	2017	2015	2016	2017	
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	
Cash on hand	232	273	125	_	_	_	
Cash at bank	403,666	446,649	933,406	22,424	11,015	393,508	
("CNNCFC")	307,191	556,295	545,302	3,950	125,312	45,024	
	711,089	1,003,217	1,478,833	26,374	136,327	438,532	
Representing:							
Cash and cash equivalents  Time deposits with original maturity over three	652,113	918,590	1,139,156	26,374	136,327	238,532	
months	57,478	83,856	339,047	_	_	200,000	
Restricted deposits (Note (i))	1,498	771	630				
	711,089	1,003,217	1,478,833	26,374	136,327	438,532	

#### Note:

## (b) Reconciliation of liabilities arising from financing activities

The table below details changes in the Group's liabilities arising from financing activities. Liabilities arising from financing activities are liabilities for which cash flows were, or future cash flows will be, classified in the Group's consolidated statements of cash flows as cash flows from financing activities

	Borrowings
	RMB'000 (Note)
At January 1, 2015	460,000
Changes from financing cash flows:	
Proceeds from new bank loans	60,000
Repayment of bank loans	(460,000)
Other borrowing costs paid	(5,053)
Total changes from financing cash flows	(405,053)
Other changes:	
Interest paid (Note 6(a))	5,053
Total other changes	5,053
At December 31, 2015 and January 1, 2016	60,000
Changes from financing cash flows:	
Proceeds from new bank loans	20,000
Proceeds from new other borrowings	400,000
Repayment of bank loans Other horrowing costs paid	(9,001)
Other borrowing costs paid	
Total changes from financing cash flows	410,999
Other changes	
Interest paid (Note 6(a))	9,001
Total other changes	9,001
At December 31, 2016 and January 1, 2017	480,000

<sup>(</sup>i) Restricted deposits mainly represent deposits for guarantee of letters of credit.

# 23 CASH AT BANK AND ON HAND AND OTHER CASH FLOW INFORMATION (Continued)

#### (b) Reconciliation of liabilities arising from financing activities (Continued)

	RMB'000 (Note)
Changes from financing cash flows:	
Proceeds from new bank loans	150,000
Repayment of bank loans	(20,000)
Repayment of other borrowings	(460,000)
Other borrowing costs paid	(2,234)
Total changes from financing cash flows	(332,234)
Other changes:	
Interest paid (Note 6 (a))	2,234
Total other changes	2,234
At December 31, 2017	150,000

Note: Borrowings consist of bank loans, loans from CNNC and loans from related parties under CNNC as disclosed in Note 24.

#### 24 BORROWINGS

#### (a) The long-term borrowings comprised:

		The Group	e Group Th			he Company	
	As at December 31,			As at December 31,			
	2015	2016	2017	2015	2016	2017	
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	
Bank loan							
—secured (Note (i))	_	_	150,000	_	_	_	
Loan from CNNC							
—unsecured (Note (iii))	60,000	_	_	60,000	_	_	

#### (b) The short-term borrowings comprised:

	The Group			The Company			
	As a	t December	r 31,	As a	t December	r 31,	
	2015	2016	2017	2015	2016	2017	
	<b>RMB'000</b>	RMB'000	RMB'000	<b>RMB'000</b>	RMB'000	RMB'000	
Bank loan							
—unsecured (Note (iv))	_	20,000	_	_	_	_	
Loans from CNNCFC							
—unsecured (Note (ii))	_	400,000	_	_	400,000	_	
Loan from CNNC							
—unsecured (Note (iii))		60,000			60,000		
	_	480,000	_	_	460,000	_	

#### Notes:

- (i) Secured bank loan represented a five-year loan borrowed by a subsidiary of the Group, bearing an interest rate of 5.0% above the PBOC five year benchmark lending rate per annum, which was jointly guaranteed by the shareholders of the subsidiary, and certain of the Group's land lease prepayments with carrying amount of RMB26,772,000 and time deposits with original maturity over three months of RMB18,000,000 as at December 31, 2017 were pledged as security for the bank loan.
- (ii) Unsecured loans from CNNCFC, a fellow subsidiary of the Group, represented loans borrowed by the Company, bore interest rates ranging from 3.9% to 4.1% for the year ended December 31, 2016.
- (iii) Unsecured loan from CNNC represented a loan borrowed by the Company, bore an interest rate 10% below the benchmark interest rate of the People's Bank of China for the years ended December 31, 2015 and 2016.
- (iv) Unsecured bank loan represented a loan borrowed by a subsidiary of the Group, bearing an interest rate of 3.9%.

# 24 BORROWINGS (Continued)

# (c) The long-term borrowings are repayable as follows:

		The Group The Company			<u>y</u>		
	As	As at December 31, As at December 31,			As at December 31,		
	2015	2016	2017	2015	2016	2017	
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	
After 1 year but within 2 years	60,000	_	_	60,000	_	_	
After 2 years but within 5 years	_	_	150,000	_	_	_	
	60,000		150,000	60,000			

#### 25 TRADE PAYABLES

	The Group As at December 31,			The Company			
				As at December 31,			
	2015	2016	2017	2015	2016	2017	
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	
Trade payables due to							
—related parties under CNNC	48,470	43,104	53,191	6,205	81	7,569	
—associates and a joint venture	6,124	7,143	7,569	_	7,143	765	
—subsidiaries	_	_	_	325	149	273	
—third parties	55,589	69,619	137,256	4,766	10,868	25,414	
	110,183	119,866	198,016	11,296	18,241	34,021	

# (a) Aging analysis

At December 31, 2015, 2016 and 2017, the aging analyses of trade payables, based on the invoice dates, are as follows:

	The Group			The Company			
	As	at December	31,	As at December 31,			
	2015	2016	2017	2015	2016	2017	
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	
Within 1 year	110,183	119,866	175,613	11,296	18,241	27,986	
1 to 2 years			22,403			6,035	
	110,183	119,866	198,016	11,296	18,241	34,021	

As at December 31, 2015, 2016 and 2017, all of the trade payables of the Group and the Company are expected to be settled within one year or are repayable on demand.

#### 26 ACCRUALS AND OTHER PAYABLES

	The Group		7	The Company	y
As	at December	31,	As	at December	31,
2015	2016	2017	2015	2016	2017
RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
239,269	295,997	391,250	_	_	_
443,149	529,470	708,154	61,018	67,563	85,004
162,772	137,069	120,596	13,497	13,959	10,542
_	_	_	148,387	50,613	124
173,081	42,100	100,647	172,113	39,401	37,047
30,016	40,778	51,048	2,864	2,780	2,421
518	825	801	508	825	801
10,756	15,616	22,617	720	1,063	2,351
2	76	1	_	75	_
98,360	112,188	122,366	3,888	5,120	6,729
1,157,923	1,174,119	1,517,480	402,995	181,399	145,019
7,068	3,247	9,287	17	807	4,272
22	550	166	2	_	166
38,371	77,047	79,556	3,873	10,973	21,173
1,203,384	1,254,963	1,606,489	406,887	<u>193,179</u>	170,630
	2015 RMB'000 239,269 443,149 162,772 173,081 30,016 518 10,756 2 98,360  1,157,923 7,068 22 38,371	As at December  2015  RMB'000 239,269 295,997 443,149 529,470 162,772 137,069 — 173,081 30,016 40,778  518 825 10,756 15,616 2 76 98,360 112,188  1,157,923 1,174,119  7,068 3,247 22 550 38,371 77,047	As at December 31,           2015         2016         2017           RMB'000         RMB'000         RMB'000           239,269         295,997         391,250           443,149         529,470         708,154           162,772         137,069         120,596           —         —         —           173,081         42,100         100,647           30,016         40,778         51,048           518         825         801           10,756         15,616         22,617           2         76         1           98,360         112,188         122,366           1,157,923         1,174,119         1,517,480           7,068         3,247         9,287           22         550         166           38,371         77,047         79,556	As at December 31,         As           2015         2016         2017         2015           RMB'000         RMB'000         RMB'000         RMB'000         RMB'000           239,269         295,997         391,250         —           443,149         529,470         708,154         61,018           162,772         137,069         120,596         13,497           —         —         —         148,387           173,081         42,100         100,647         172,113           30,016         40,778         51,048         2,864           518         825         801         508           10,756         15,616         22,617         720           2         76         1         —           98,360         112,188         122,366         3,888           1,157,923         1,174,119         1,517,480         402,995           7,068         3,247         9,287         17           22         550         166         2           38,371         77,047         79,556         3,873	As at December 31,         As at December 31,           2015         2016         2017         2015         2016           RMB'000         RMB'000         RMB'000         RMB'000         RMB'000         RMB'000           239,269         295,997         391,250         —         —         —           443,149         529,470         708,154         61,018         67,563           162,772         137,069         120,596         13,497         13,959           —         —         —         148,387         50,613           173,081         42,100         100,647         172,113         39,401           30,016         40,778         51,048         2,864         2,780           518         825         801         508         825           10,756         15,616         22,617         720         1,063           2         76         1         —         75           98,360         112,188         122,366         3,888         5,120           1,157,923         1,174,119         1,517,480         402,995         181,399           7,068         3,247         9,287         17         807

#### Notes:

#### 27 EMPLOYEE RETIREMENT BENEFITS

#### (a) Defined benefit retirement plans

In addition to the government-mandated basic pension and medical program, the Group provides defined retirement benefits to civil retirees, current retirees and certain eligible active employees (the "Plan"), which covers 14%, 14% and 41% of the Group's employees as at December 31, 2015, 2016 and 2017, respectively. The Plan is administered by the Group and funded by the working capital of the Group.

Under the Plan, the qualified retirees and/or employees are entitled to fixed supplemental post-retirement pension benefits, fixed death benefits and supplemental post-retirement medical benefits.

The independent actuarial valuations of the defined benefit retirement obligation at December 31, 2015, 2016 and 2017 were prepared by qualified staff of Towers Watson Management Consulting (Shenzhen) Co., Ltd., Beijing Branch, using the projected unit credit method.

The Plan exposes the Group to actuarial risks, such as interest rate risk and longevity risk.

<sup>(</sup>i) The balances represent deposits from promoters for ordering goods which will be repaid to promoters after the trade receivables have been paid by customers. These deposits are unsecured, interest free and have no fixed repayment terms.

<sup>(</sup>ii) The balances represent service fee payables to promoters and bonus payables to promoters and distributors.

<sup>(</sup>iii) As at December 31, 2015, 2016 and 2017, all of the accruals and other payables are expected to be settled or recognized as revenue within one year or are repayable on demand.

# **27** EMPLOYEE RETIREMENT BENEFITS (Continued)

#### (a) Defined benefit retirement plans (Continued)

Information about the Plan disclosed below:

(i) The amounts recognized in the consolidated statements of financial position are as follows:

		The Group		7	The Company	y
	As	at December	31,	As	at December	31,
	2015 2016 2017			2015	2016	2017
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
Present value of obligations	30,912	30,898	40,511	22,479	22,085	23,368

A portion of the above liability is expected to be settled after more than one year. However, it is not practicable to segregate this amount from the amounts payable in the next twelve months. The Group expects the amount of RMB2,399,000 of the defined benefit retirement obligation to be paid in the next twelve months.

(ii) Movements in the present value of the defined benefit retirement obligation were as follows:

	The Group			The Company			
	2015	2016	2017	2015	2016	2017	
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	
Balance at January 1	29,439	30,912	30,898	21,931	22,479	22,085	
Remeasurements:							
-actuarial losses arising from changes in							
financial assumptions	2,440	793	(114)	1,562	419	609	
Benefits paid by the plans	(2,268)	(2,288)	(2,168)	(1,912)	(1,877)	(1,790)	
Current service cost	241	304	602	111	138	151	
Effect of new participants and increase in payment							
rates (Note)	_	_	9,897	_	_	1,468	
Interest expenses	1,060	1,177	1,396	787	926	845	
Balance at December 31	30,912	30,898	40,511	22,479	22,085	23,368	

The effect of new participants and increase in payment rates is the change in the present value of the defined benefit obligation resulting from expanding the employee groups covered by the Plan and increasing the benefits that are payable after retirement.

(iii) Amounts recognized in the consolidated statements of profit or loss and the consolidated statements of profit or loss and other comprehensive income are as follows:

	The Group			The Company			
	Years	ended Decem	ber 31,	Years ended December 31,			
	2015	2016	2017	2015	2016	2017	
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	
Service cost	241	304	602	111	138	151	
Net interest on net defined benefit liability	1,060	1,177	1,396	787	926	845	
Total amounts recognized in profit or loss	1,301	1,481	1,998	898	1,064	996	
Total amounts recognized in other comprehensive income							
—Actuarial losses	2,440	793	(114)	1,562	419	609	
Total defined benefit costs	3,741	2,274	1,884	2,460	1,483	1,605	

#### **27** EMPLOYEE RETIREMENT BENEFITS (Continued)

#### (a) Defined benefit retirement plans (Continued)

The service cost and the net interest on net defined benefit liability are recognized in the following line items in the consolidated statements of profit or loss:

	The Group			The Company			
	Years	Years ended December 31,			Years ended December 31,		
	2015	2015 2016 2017 2015		2016	2017		
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	
Finance costs	1,060	1,177	1,396	787	926	845	
Administrative expenses	241	304	602	111	138	151	
	1,301	1,481	1,998	898	1,064	996	

#### (iv) Significant actuarial assumptions (expressed as weighted averages) are as follows:

	Years e	nded Decem	ber 31,
	2015	2016	2017
	RMB'000	RMB'000	RMB'000
Discount rates	3.00%	3.25%	4.25%
Future salary increases	6.00%	6.00%	6.00%
Annual turnover rates of active employees	5.00%	5.00%	5.00%

The below analyses show how the defined benefit obligation of the Group would have increased (decreased) as a result of 1% change in the significant actuarial assumptions:

	Ir	crease by 1%	6
	Years e	ended Decem	ber 31,
	2015	2016	2017
	RMB'000	RMB'000	RMB'000
Discount rates	(3,180)	(3,175)	(5,036)
Future salary increases	975	1,085	2,341
Annual turnover rates of active employees	(534)	(567)	(1,315)
	D	ecrease by 1º	<b>%</b>
	Years e	ended Decem	ber 31,
	Years 6 2015	ended Decem 2016	ber 31, 2017
Discount rates	2015	2016	2017
Discount rates	2015 RMB'000	2016 RMB'000	2017 RMB'000

The above sensitivity analyses is based on the assumption that changes in actuarial assumptions are not correlated and therefore it does not take into account the correlations between the actuarial assumptions.

# (b) Defined contribution retirement plan

Pursuant to the relevant laws and regulations of the PRC, the Company and its subsidiaries participate in defined contribution retirement benefit schemes managed by government organizations. The Group makes contributions to basic pension insurance plans based on the applicable benchmarks and rates stipulated by the government authorities, whereby these entities are required to contribute to the schemes at a rate of 19% of the employees' basic salaries. Employees of these entities are entitled to retirement benefits, calculated based on a percentage of the average salaries level in the PRC, from the above mentioned retirement schemes at their normal retirement.

# 28 INCOME TAX IN THE CONSOLIDATED STATEMENTS OF FINANCIAL POSITION

# (a) Income tax payable/(recoverable)

	The Group			The Company		
	2015	2016	2017	2015	2016	2017
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
At January 1	36,118	32,297	31,117	(3,721)	(2,293)	(3,387)
Provision for the year	88,071	89,828	116,777	1,238	584	10,239
Income tax (paid)/received	(91,892)	(91,008)	(102,676)	190	(1,678)	35
At December 31	32,297	31,117	45,218	(2,293)	(3,387)	6,887

	As at December 31,			As at December 31,		
	2015	2016	2017	2015	2016	2017
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
Representing						
Income tax payable	35,201	34,558	45,304	_	_	6,887
Income tax recoverable	(2,904)	(3,441)	(86)	(2,293)	(3,387)	
	32,297	31,117	45,218	(2,293)	(3,387)	6,887

# (b) Deferred tax assets and liabilities recognized

The components of deferred tax assets/(liabilities) recognized in the consolidated statements of financial position and movements during the Track Record Period are as follows:

# The Group

	Accruals	Impairment losses on assets	Provision for reclamation obligations	Sub-total	Fair value change in trading securities	Total RMB'000
At January 1, 2015	75,509	13,008	8,336	96,853	(24)	96,829
Credited to consolidated statement of profit or loss (Note 7(a))	10,473	1,528	614	12,615	4	12,619
At December 31, 2015 and January 1, 2016	85,982	14,536	8,950	109,468	(20)	109,448
Credited/(charged) to consolidated statement of profit or loss (Note 7(a))	8,674	2,207	701	11,582	(1)	11,581
At December 31, 2016 and January 1, 2017	94,656	16,743	9,651	121,050	(21)	121,029
or loss (Note 7(a))	25,562	1,659	7,218	34,439	12	34,451
At December 31, 2017	120,218	18,402	16,869	155,489	(9)	155,480

# 28 INCOME TAX IN THE CONSOLIDATED STATEMENTS OF FINANCIAL POSITION (Continued)

## (b) Deferred tax assets and liabilities recognized (Continued)

#### The Company

	Accruals	Impairment losses on assets	Total
	RMB'000	RMB'000	RMB'000
At January 1, 2015	10,519	1,286	11,805
Credited to profit or loss	1,448	1,174	2,622
At December 31, 2015 and January 1, 2016	11,967	2,460	14,427
Credited to profit or loss	828	133	961
At December 31, 2016 and January 1, 2017	12,795	2,593	15,388
Credited/(charged) to profit or loss	9,008	(108)	8,900
At December 31, 2017	21,803	2,485	24,288

#### (c) Deferred tax assets not recognized

In accordance with the accounting policy set out in Note 2(t), the Group has not recognized deferred tax assets in respect of tax losses of RMB13,479,000, RMB18,226,000 and RMB25,721,000 as at December 31, 2015, 2016 and 2017, respectively, as it is not probable that future taxable profits against which the losses can be utilized will be available in the relevant tax jurisdiction and entity. The tax losses can be carried forward for five years from the year incurred.

As at December 31, 2017, tax losses of RMB1,856,000, RMB2,281,000, RMB3,867,000, RMB9,370,000 and RMB8,347,000 will expire, if unused by the end of December 31, 2018, 2019, 2020, 2021 and 2022, respectively.

#### 29 PROVISIONS

## (a) The balance of provisions comprised:

#### The Group

	As at December 31,			
	2015	2016	2017	
	RMB'000	RMB'000	RMB'000	
Reclamation obligations (Note(b))	145,545	156,736	167,105	
Others	3,790	3,320	3,320	
	149,335	160,056	170,425	
Less: current portion of the provisions	(54,652)	(59,954)	(64,614)	
	94,683	100,102	105,811	

# (b) The movements of the provision for reclamation obligations during the Track Record Period are as follows:

Years ended December 31,			
2015	2016	2017	
RMB'000	RMB'000	RMB'000	
135,918	145,545	156,736	
5,465	6,713	5,621	
4,162	4,478	4,748	
145,545	156,736	167,105	
	2015 RMB'000 135,918 5,465 4,162	2015         2016           RMB'000         RMB'000           135,918         145,545           5,465         6,713           4,162         4,478	

#### **APPENDIX I**

#### 29 PROVISIONS (Continued)

# (b) The movements of the provision for reclamation obligations during the Track Record Period are as follows (Continued):

The Group's obligations for reclamation consist of estimated expenditures for retirement of its radioactive production facilities in accordance with the relevant rules and regulations in the PRC. The provision is therefore determined based on management's best estimates. The estimate of the associated costs may be subject to change in the near term when the reclamation on the disposal of the radioactive production facilities becomes apparent in future periods. At the end of each reporting period, the Group reassessed the estimated costs and adjusted the accrued reclamation obligations, where necessary. The Group's management believes that the accrued reclamation obligations at December 31, 2015, 2016 and 2017 are adequate and appropriate. The accruals are based on estimates and therefore, the ultimate liabilities may exceed or be less than such estimates.

# (c) Long-term receivables

Long-term receivable represents present value of a part of reclamation obligations which is due from CIAE according to the commitment agreement between a subsidiary of the Group and CIAE.

#### 30 DEFERRED INCOME

#### The Group

	2015	2016	2017
	RMB'000	RMB'000	RMB'000
At January 1	21,189	26,540	26,027
Additions	7,200	3,520	15,992
Credit to the consolidated statements of profit or loss	(1,849)	(4,033)	(4,129)
At December 31	26,540	26,027	37,890

Deferred income mainly represents government grants relating to construction of property, plant and equipment, as well as technology research funding related to radiopharmaceutical and other pharmaceuticals related assets, which would be recognized as income on a straight-line basis over the expected useful life of the relevant assets. The deferred income recognized is included in "other income" in the consolidated statements of profit or loss.

# 31 SHARE CAPITAL, RESERVES AND DIVIDENDS

# (a) Movements in components of equity

The reconciliation between the opening and closing balances of each component of the Group's consolidated equity is set out in the consolidated statements of changes in equity. Details of the changes in the Company's individual components of equity during the Track Record Period are set out below:

	Share capital	Capital reserve	PRC statutory reserve	Other reserve	(Accumulated losses)/ retained profits	Total equity
	RMB'000 (Note 31(c))	RMB'000 (Note 31(d)(i))	RMB'000 (Note 31(d)(ii))	RMB'000 (Note 31(d)(iii))	RMB'000	RMB'000
At January 1, 2015	200,000	134,809	31,266	1,804	(2,884)	364,995
Changes in equity:						
Profit for the year Other comprehensive income					82,627 (1,562)	82,627 (1,562)
Total comprehensive income					81,065	81,065
Appropriation of maintenance and production funds	_	_	_	177	(177)	_
Utilization of maintenance and production funds	_	_	_	(26)	26	_
Appropriation to reserves	_	_	8,248	_	(8,248)	_
Dividends (Note 31(b))					(172,113)	(172,113)
At December 31, 2015 and					/	
January 1, 2016	200,000	134,809	39,514	1,955	(102,331)	273,947
Changes in equity:  Profit for the year	_	_	_	_	153,599	153,599
Other comprehensive income					(419)	(419)
Total comprehensive income					153,180	153,180
Appropriation of maintenance and production funds Utilization of maintenance and	_	_	_	176	(176)	_
production funds	_	_	_	(25)	25	_
Appropriation to reserves	_	_	15,346	_	(15,346)	_
Dividends (Note 31(b))	<u></u>				(186,292)	(186,292)
At December 31, 2016 and	200.000	124 000	54.060	2.106	(150.040)	240.925
January 1, 2017	200,000	134,809	54,860	2,106	(150,940)	240,835
Changes in equity:  Profit for the year	_	_	_	_	458,390	458,390
income	_	_	_	_	(609)	(609)
Total comprehensive income					457,781	457,781
Issue of ordinary shares (Note						
31(c))	39,906	810,094 —	45,894	_	(45,894)	850,000
production funds	_ _	_ _		89 —	(89) (175,161)	— (175,161)
At December 31, 2017	239,906	944,903	100,754	2,195	85,697	1,373,455

#### **APPENDIX I**

#### 31 SHARE CAPITAL, RESERVES AND DIVIDENDS (Continued)

### (b) Dividends

Dividends payable to equity shareholders of the Company attributable to the previous financial years, approved during the Track Record Period.

	Years ended December 31,			
	2015	2016	2017	
	RMB'000	RMB'000	RMB'000	
Final dividend in respect of the previous financial years, approved during the year	172,113	186,292	175,161	
Final dividend per ordinary share (RMB)	0.86	0.93	0.73	

The directors of the Company consider that the dividends made during the Track Record Period are not indicative of the future dividend policy of the Company and the Group.

#### (c) Share capital

	No. of shares	RMB'000
Ordinary shares issued		
At January 1, 2015 and December 31, 2015 and 2016	200,000	200,000
Shares issued	39,906	39,906
December 31, 2017	239,906	239,906

All shareholders are entitled to receive dividends as declared from time to time and are entitled to one vote per share at shareholders' meetings of the Company. All shares rank equally with regard to the Company's residual assets.

On March 14, 2017, the Company issued 39,906,000 new ordinary shares to CNNC, five related parties under CNNC, Beijing Aerospace Industry Investment Fund LLP and China Aerospace Investment Co., Ltd. at an aggregated consideration of RMB850,000,000. The proceeds of RMB39,906,000 received by the Company, representing the par value, were credited to the Company's share capital. The remaining proceeds received by the Company, net of transaction costs, of RMB810,094,000 were credited to the Company's capital reserve account.

#### (d) Nature and purpose of reserves

#### (i) Capital reserve

Capital reserve represents (i) the proceeds in excess of the par value upon shares issuance received by the Company as disclosed in Note 31(c); and (ii) the amount of carrying amount of the net assets of certain subsidiaries acquired in excess of the consideration paid by the Group, as a result of business combination under common control.

## (ii) PRC statutory reserve

In accordance with the relevant PRC laws and regulations and the Company's articles of association, the Company is required to transfer 10% of its net profit as determined in accordance with accounting rules and regulations of the PRC to the statutory PRC reserve until the reserve reaches 50%

#### 31 SHARE CAPITAL, RESERVES AND DIVIDENDS (Continued)

#### (d) Nature and purpose of reserves (Continued)

#### (ii) PRC statutory reserve (Continued)

of the registered capital. The transfer to this reserve must be made before distributions to equity shareholders. This reserve can be utilized in setting off accumulated losses or increase capital and is non-distributable other than in liquidation.

#### (iii) Other reserve

Other reserve represents specific reserve for production and maintenance funds. Pursuant to the relevant PRC regulations, the Group is required to transfer production and maintenance funds at fixed rates of relevant production outputs or revenue. The maintenance and production funds could be utilized when expenses or capital expenditures on production maintenance and safety measures are incurred. The amount of production and maintenance funds utilized would be transferred from the specific reserve back to retained profits.

#### (iv) Exchange reserve

The exchange reserve comprises all foreign exchange differences arising from the translation of the financial statements of an associate. The reserve is dealt with in accordance with the accounting policies as set out in Note 2(x).

#### (e) Capital management

The Group's primary objectives when managing capital are to safeguard the Group's ability to continue as a going concern, so that it can continue to provide returns for shareholders and benefits for other stakeholders and to maintain an optional capital structure to reduce the cost of capital.

The Group actively and regularly reviews and manages its capital structure to maintain a balance between the higher shareholders returns that might be possible with higher levels of borrowings and the advantages and security afforded by a sound capital position, and makes adjustments for the capital structure in light of changes in economic conditions.

The Group monitors its capital structure on the basis of an assets to liability ratio. During the Track Record Period, the Group's strategy was to maintain the assets to liability ratio. The liability-to-asset ratio of the Group was 54%, 59% and 48% as at December 31, 2015, 2016 and 2017, respectively.

Neither the Company nor its subsidiaries are subject to externally imposed capital requirements.

Exposure to credit, liquidity and interest rate risks arises in the normal course of the Group's business. The Group's exposure to these risks and the financial risk management policies and practices used by the Group to manage these risks are described below.

The Company

# 32 FINANCIAL RISK MANAGEMENT AND FAIR VALUES OF FINANCIAL INSTRUMENTS

## (a) Credit risk

The Group's credit risk is primarily attributable to cash at bank and on hand, and trade and other receivables. Management has a credit policy in place and the exposure to these credit risk are monitored on an ongoing basis.

Substantially all the Group's cash at bank and on hand are deposited in the state owned/controlled PRC banks or CNNCFC, a financial institution under CNNC, which the directors assessed the credit risk to be low.

In practice, three months credit period will be granted to customers of the Group. Individual credit evaluations are performed on all customers requiring credit over a certain amount.

These evaluations focus on the customer's past history of making payments when due and current ability to pay, and take into account information specific to the customer as well as pertaining to the economic environment in which the customer operates. Normally, the Group does not obtain collateral from customers.

The Group's exposure to credit risk is influenced mainly by the individual characteristics of each customer rather than the industry in which the customers operate and therefore significant concentrations of credit risk primarily arise when the Group has significant exposure to individual customers. As at December 31, 2015, 2016 and 2017, 6%, 4% and 7% of trade receivables was due from the Group's five largest customers, respectively.

Further quantitative disclosures in respect of the Group's exposure to credit risk arising from trade and other receivables and are set out in Note 20 and Note 22.

## (b) Liquidity risk

The Group's policy is to regularly monitor current and expected liquidity requirements to ensure that it maintains sufficient reserves of cash and adequate committed lines of funding from major financial institutions to meet its liquidity requirements in the short and longer term.

The following table details the remaining contractual maturities at the end of each reporting period of the Group's financial liabilities, which are based on contractual undiscounted cash flows (including interest payments computed using contractual rates or, if floating, based on rates current at the end of each reporting period) and the earliest dates the Group can be required to pay:

The Croun

		December				December			
	Contractual undiscounted cash flow				Contractua	Contractual undiscounted cash flow			
	Within 1 year or on demand	More than 1 year but less than 2 years	Total	Carrying amount	Within 1 year or on demand	More than 1 year but less than 2 years	Total	Carrying amount	
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	
Borrowings (Note 24) Trade payables	2,460	61,651	64,111	60,000	2,460	61,651	64,111	60,000	
(Note 25)	110,183	_	110,183	110,183	11,296	_	11,296	11,296	
(Note 26)	1,157,923		1,157,923	1,157,923	402,995		402,995	402,995	
Total	1,270,566	61,651	1,332,217	1,328,106	416,751	61,651	478,402	474,291	

# 32 FINANCIAL RISK MANAGEMENT AND FAIR VALUES OF FINANCIAL INSTRUMENTS (Continued)

## (b) Liquidity risk (Continued)

	The Gr December .		The Company December 31, 2016		
	Contractual undiscounted cash flow		Contractual undiscounted cash flow		
	Within 1 year or on demand	Carrying amount	Within 1 year or on demand	Carrying amount RMB'000	
	RMB'000	RMB'000	RMB'000		
Borrowings (Note 24)	491,060	480,000	470,361	460,000	
Trade payables (Note 25)	119,866	119,866	18,241	18,241	
Accruals and other payables (Note 26)	1,174,119	1,174,119	181,399	181,399	
Total	1,785,045	1,773,985	670,001	659,640	

		The Group December 31, 2017						he Compan ember 31, 2		
	Contra	Contractual undiscounted cash flow				Contra	actual undis	scounted ca	sh flow	
	Within 1 year or on demand	More than 1 year but less than 2 years		Total	Carrying amount	Within 1 year or on demand	More than 1 year but less than 2 years	2 year but		Carrying amount
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
Borrowings										
(Note 24)	7,481	7,481	167,012	181,974	150,000	_	_	_	_	_
Trade payables										
(Note 25)	198,016	_	_	198,016	198,016	34,021	_	_	34,021	34,021
Accruals and other payables										
(Note 26)	1,517,480	_	_	1,517,480	1,517,480	145,019	_	_	145,019	145,019
Total	1,722,977	7,481	167,012	1,897,470	1,865,496	179,040			179,040	179,040

# (c) Interest rate risk

The Group's interest rate risk arises primarily from borrowings. Borrowings issued at variable rates and at fixed rates expose the Group to cash flow interest rate risk and fair value interest rate risk, respectively.

The following tables detail the profile of the Group's interest-bearing financial liabilities at the end of each reporting period. The detailed interest rates and maturity information of the Group's borrowings are disclosed in Note 24.

		The Group		The Company				
	As	at December	31,	As	As at December 31,			
	2015 RMB'000	2016 RMB'000	2017 RMB'000	2015 RMB'000	2016 RMB'000	2017 RMB'000		
Net fixed rate borrowings:	11.12 000	11.12 000	11.12	11.12 000	11.12 000	11.12 000		
Borrowings	60,000	60,000	150,000	60,000	60,000			
Net floating rate borrowings:								
Borrowings		420,000			400,000			

## (i) Sensitivity analysis

At December 31, 2015, 2016 and 2017, it is estimated that a general increase/decrease of 100 basis points in interest rates, with all other variables held constant, would have decreased/increased the Group's profit after tax and retained profits by approximately nil, RMB3,150,000 and nil, respectively.

# 32 FINANCIAL RISK MANAGEMENT AND FAIR VALUES OF FINANCIAL INSTRUMENTS (Continued)

## (c) Interest rate risk (Continued)

## (i) Sensitivity analysis (Continued)

At December 31, 2015, 2016 and 2017, it is estimated that a general increase/decrease of 100 basis points in interest rates, with all other variables held constant, would have decrease/increase the Company's profit after tax and retained profits by approximately nil, RMB3,000,000 and nil, respectively.

The sensitivity analysis above indicates the instantaneous change in the Group's profit after tax (and retained profits) that would arise assuming that the change in interest rates had occurred at the end of each reporting period. The impact is estimated as an annualized impact on interest expense of such a change in interest rates. The sensitivity analysis is performed on the same basis for the Track Record Period.

#### (d) Fair values measurement

#### (i) Financial assets measured at fair value

Fair value hierarchy

The following table presents the fair value of the Group's financial instruments measured at the end of each reporting period on a recurring basis, categorized into the three-level fair value hierarchy as defined in IFRS 13, *Fair value measurement*. The level into which a fair value measurement is classified is determined with reference to the observability and significance of the inputs used in the valuation technique as follows:

- Level 1 valuations: Fair value measured using only Level 1 inputs i.e. unadjusted quoted prices in active markets for identical assets or liabilities at the measurement date.
- Level 2 valuations: Fair value measured using Level 2 inputs i.e. observable inputs which fail to meet Level 1, and not using significant unobservable inputs. Unobservable inputs are inputs for which market data are not available.
- Level 3 valuations: Fair value measured using significant unobservable inputs.

At December 31, 2015, 2016 and 2017, the financial instruments of the Group carried at fair value were trading securities which fall into Level 1 of the fair value hierarchy described above. The fair value of the trading securities at December 31, 2015, 2016 and 2017 were RMB148,000, RMB152,000 and RMB104,000, respectively.

# (ii) Fair value of financial instruments carried at other than fair value

The carrying amounts of the financial instruments carried at cost or amortized cost are not materially different from their fair values as at December 31, 2015, 2016 and 2017.

## **APPENDIX I**

#### 33 **COMMITMENTS**

#### (a) Capital commitments

Capital commitments outstanding at respective reporting period end dates not provided for in the Historical Financial Information were as follows:

## The Group

As at December 31,			
2015	2016	2017	
RMB'000	RMB'000	RMB'000	
221,789	187,078	106,254	
205,702	60,000	76,855	
427,491	247,078	183,109	
	2015 RMB'000 221,789 205,702	2015         2016           RMB'000         RMB'000           221,789         187,078           205,702         60,000	

# (b) Operating lease commitments

As at the respective reporting period end dates, the total future minimum lease payments under non-cancellable operating leases are payable as follows:

## The Group

As at December 31,		
2015	2016	2017
RMB'000	RMB'000	RMB'000
3,618	3,869	10,052
16,160	16,512	23,837
8,442	4,221	
28,220	24,602	33,889
	2015 RMB'000 3,618 16,160 8,442	2015         2016           RMB'000         RMB'000           3,618         3,869           16,160         16,512           8,442         4,221

The Group leases certain buildings through operating leases. These operating leases do not contain provisions for contingent lease rentals. None of the agreements contain escalation provisions that may require higher future rental payments.

# 34 MATERIAL RELATED PARTY TRANSACTIONS

# (a) Transaction with related parties during the Track Record Period

The Group is part of a large group of companies under CNNC, and has significant transactions and relationships with CNNC and related parties under CNNC.

The principle transactions which were carried out in the ordinary course of business are as follows:

	Years ended December 31,		
	2015	2015 2016	2017
	RMB'000	RMB'000	RMB'000
Sales of goods to			
Related parties under CNNC# Associates and a joint venture	70,204 23,530	52,929 21,863	50,942 18,267
Construction service provided to Related parties under CNNC	_	936	_
Service provided to			
Related parties under CNNC#	816	1,694	2,722
Associates and a joint venture	18,807	44,900	64,896
Purchase of goods from Related parties under CNNC#	7 227	2 144	7.020
Associates and a joint venture	7,337 21,083	3,144 21,183	7,028 24,171
· · · · · · · · · · · · · · · · · · ·	21,003	21,103	24,171
Purchase of property, plant and equipment from Related parties under CNNC	3,864	7,557	5,815
Sales of equipment to	,	,	,
CNNC	_	13,440	_
Related parties under CNNC	4,258	_	_
Service provided by			
CNNC#	300	300	300
Related parties under CNNC#	61,596	64,900	87,881
Related parties under CNNC#	4,599	3,469	3,798
Loans received from			
CNNC	60,000	400,000	_
Loans repaid to		,	
CNNC	60,000	_	60,000
Related parties under CNNC#	400,000	_	400,000
Interest expenses			
CNNC	2,421	2,259	144
Related parties under CNNC#	2,632	6,677	2,045
Net deposits placed with/(withdrawn from) Related parties under CNNC#	(259,777)	249,104	(10,993)
Interest income			
Related parties under CNNC#	4,488	5,847	14,465
Dividend paid to		146 710	00.061
CNNC Related parties under CNNC		146,719 172,285	90,961 168,324
		1 / 2,263	100,324
Dividend received from Related parties under CNNC	1,408	563	_
Capital investment in			
Related parties under CNNC	_	40,000	_
Capital investment from CNNC			60,000
Related parties under CNNC	_	_	710,000
			*

<sup>#</sup> These transactions are to be continued after the listing of the Company's shares on the Stock Exchange.

#### 34 MATERIAL RELATED PARTY TRANSACTIONS (Continued)

#### (b) Balances with related parties

Details of the outstanding balance with related parties are set out in Notes 20, 21, 22, 23, 24, 25, 26 and 29.

Except for cash deposited with and loans from related parties, balance with related parties are unsecured, non-interest bearing and have no fixed terms of repayment.

#### (c) Transactions with other government-related entities in the PRC

The Group is a state-owned entities and operates in an economic regime currently dominated by entities directly or indirectly owned or controlled by the PRC government and numerous government authorities and agencies (collectively referred to as "State-owned Entities").

During the Track Record Period, the Group had transactions with State-owned Entities including, but not limited to, sales of goods, deposits and borrowings, purchase of materials and receiving construction work services. The directors consider that the transactions with these State-owned Entities are activities in the ordinary course of the Group's business and that the dealings of the Group have not been significantly or unduly affected by the fact that the Group and these State-owned Entities are ultimately controlled or owned by the PRC government. The Group has also established pricing policies for services and products, and such pricing policies do not depend on whether or not the counterparties are State-owned Entities. Having due regard to the substance of the relationship, the directors are of the opinion that none of these transactions are material related party transactions that require separate disclosure.

#### (d) Key management personnel remuneration

Key management personnel are those persons holding positions with authority and responsibility for planning, directing and controlling the activities of the Group, directly or indirectly, including the Company's directors.

Remuneration for key management personnel, including amounts paid to the Company's directors as disclosed in Note 9, and certain of the highest paid employees as disclosed in Note 10, is as follows:

Years ended December 31,			
2015	2015	2015 2016	2017
RMB'000	RMB'000	RMB'000	
1,181	1,302	2,308	
483	483	575	
2,064	2,556	3,010	
3,728	4,341	5,893	
	2015 RMB'000 1,181 483 2,064	2015         2016           RMB'000         RMB'000           1,181         1,302           483         483           2,064         2,556	

## 35 IMMEDIATE AND ULTIMATE HOLDING COMPANY

As at December 31, 2015, 2016 and 2017, the directors of the Company consider the immediate and ultimate holding company of the Group to be CNNC, which is a state-owned enterprise established in the PRC. CNNC does not produce financial statements available for public use.

Effortive for

# 36 POSSIBLE IMPACT OF AMENDMENTS, NEW STANDARDS AND INTERPRETATIONS ISSUED BUT NOT YET EFFECTIVE FOR THE ACCOUNTING PERIOD BEGINNING ON JANUARY 1, 2017

Up to date of issue of the Historical Financial Information, the IASB has issued a number of amendments and new standards which are not yet effective for the accounting year beginning on January 1, 2017 and which have not been adopted in the Historical Financial Information.

	accounting periods beginning on or after
IFRS 9, Financial instruments	January 1, 2018
IFRS 15, Revenue from contracts with customers	January 1, 2018
Amendments to IFRS 2, Share-based payment. Classification and measurement of share-based payment	
transactions	January 1, 2018
Amendments to IAS 40, Investment property: Transfers of investment property	January 1, 2018
IFRIC 22, Foreign currency transactions and advance consideration	January 1, 2018
IFRS 16, Leases	January 1, 2019
IFRIC 23, Uncertainty over income tax treatments	January 1, 2019

The Group is in the process of making an assessment of what the impact of these amendments, new standards and interpretations is expected to be in the period of initial application. So far the Group has identified some aspects of the new standards which may have a significant impact on the consolidated financial statements. Further details of the expected impacts are discussed below.

#### IFRS 9, Financial instruments

IFRS 9 will replace the current standard on accounting for financial instruments, IAS 39, *Financial instruments: Recognition and measurement*. IFRS 9 introduces new requirements for classification and measurement of financial assets, calculation of impairment of financial assets and hedge accounting. On the other hand, IFRS 9 incorporates without substantive changes the requirements of IAS 39 for recognition and derecognition of financial instruments and the classification of financial liabilities. Expected impacts of the new requirements on the Group's consolidated financial statements are as follows:

#### Classification and measurement

IFRS 9 contains three principal classification categories for financial assets: measured at (1) amortized cost, (2) fair value through profit or loss (FVTPL) and (3) fair value through other comprehensive income (FVTOCI):

For equity securities, the classification is FVTPL regardless of the entity's business model. The only exception is if the equity security is not held for trading and the entity irrevocably elects to designate that security as FVTOCI. If an equity security is designated as FVTOCI then only dividend income on that security will be recognized in profit or loss. Gains, losses and impairments on that security will be recognized in other comprehensive income without recycling.

The Group has assessed that its financial assets currently measured at amortized cost and FVTPL will continue with their respective classification and measurements upon the adoption of IFRS 9. The equity security will be designated as FVTOCI then only dividend income on that security will be recognized in profit or loss.

The classification and measurement requirements for financial liabilities under IFRS 9 are largely unchanged from IAS 39, except that IFRS 9 requires the fair value change of a financial

# 36 POSSIBLE IMPACT OF AMENDMENTS, NEW STANDARDS AND INTERPRETATIONS ISSUED BUT NOT YET EFFECTIVE FOR THE ACCOUNTING PERIOD BEGINNING ON JANUARY 1, 2017 (Continued)

liability designated at FVTPL that is attributable to changes of that financial liability's credit risk to be recognized in other comprehensive income (without reclassification to profit or loss). The Group currently does not have any financial liabilities designated at FVTPL and therefore this new requirement will not have any impact on the group on adoption of IFRS 9.

#### *Impairment*

The new impairment model in IFRS 9 replaces the "incurred loss" model in IAS 39 with an "expected credit loss" model. Under the expected credit loss model, it will no longer be necessary for a loss event to occur before an impairment loss is recognized. Instead, an entity is required to recognize and measure expected credit losses as either 12-month expected credit losses or lifetime expected credit losses, depending on the asset and the facts and circumstances. This new impairment model may result in an earlier recognition of credit losses on the Group's trade receivables and other financial assets. Based on a preliminary assessment, the Group expects the accumulated impairment loss provision will not materially change.

#### IFRS 15, Revenue from contracts with customers

IFRS 15 establishes a comprehensive framework for recognizing revenue from contracts with customers. IFRS 15 will replace the existing revenue standards, IAS 18, *Revenue*, which covers revenue arising from sale of goods and rendering of services, and IAS 11, *Construction contracts*, which specifies the accounting for revenue from construction contracts. Based on the assessment completed to date, the Group has identified the following area which is expected to be affected:

#### Timing of revenue recognition

The Group's revenue recognition policies are disclosed in Note 2(w). Currently, revenue arising from construction contracts and the provision of services is recognized over time, whereas revenue from the sale of goods is generally recognized when the risks and rewards of ownership have passed to the customers.

Under IFRS 15, revenue is recognized when the customer obtains control of the promised good or service in the contract. IFRS 15 identifies 3 situations in which control of the promised good or service is regarded as being transferred over time:

- (a) When the customer simultaneously receives and consumes the benefits provided by the entity's performance, as the entity performs;
- (b) When the entity's performance creates or enhances an asset (for example work in progress) that the customer controls as the asset is created or enhanced;
- (c) When the entity's performance does not create an asset with an alternative use to the entity and the entity has an enforceable right to payment for performance completed to date.

If the contract terms and the entity's activities do not fall into any of these 3 situations, then under IFRS 15 the entity recognizes revenue for the sale of that good or service at a single point in time, being when control has passed. Transfer of risks and rewards of ownership is only one of the indicators that will be considered in determining when the transfer of control occurs.

# 36 POSSIBLE IMPACT OF AMENDMENTS, NEW STANDARDS AND INTERPRETATIONS ISSUED BUT NOT YET EFFECTIVE FOR THE ACCOUNTING PERIOD BEGINNING ON JANUARY 1, 2017 (Continued)

The Group has assessed that the new revenue standard is not likely to have significant impact on how it recognises revenue. The Group plans to elect to use the cumulative effect transition method for the adoption of IFRS 15 and will recognize the cumulative effect of initial application as an adjustment to the opening balance of equity at January 1, 2018. As allowed by IFRS 15, the Group plans to apply the new requirements only to contracts that are not completed before January 1, 2018. Since the number of "open" contracts at December 31, 2017 is limited, the Group expects that the transition adjustment to be made upon the initial adoption of IFRS 15 will not be material. The expected changes in accounting policies as described above will not have a material impact on the Group's financial results from 2018 onwards.

#### IFRS 16, Leases

As disclosed in Note 2(k), currently the Group classifies leases into finance leases and operating leases and accounts for the lease arrangements differently, depending on the classification of the lease. The Group enters into some leases as the lessor and others as the lessee.

IFRS 16 is not expected to impact significantly on the way that lessors account for their rights and obligations under a lease. However, once IFRS 16 is adopted, lessees will no longer distinguish between finance leases and operating leases. Instead, subject to practical expedients, lessees will account for all leases in a similar way to current finance lease accounting, i.e. at the commencement date of the lease the lessee will recognize and measure a lease liability at the present value of the minimum future lease payments and will recognize a corresponding "right-of-use" asset. After initial recognition of this asset and liability, the lessee will recognize interest expense accrued on the outstanding balance of the lease liability, and the depreciation of the right-of-use asset, instead of the current policy of recognizing rental expenses incurred under operating leases on a systematic basis over the lease term. As a practical expedient, the lessee can elect not to apply this accounting model to short-term leases (i.e. where the lease term is 12 months or less) and to leases of low-value assets, in which case the rental expenses would continue to be recognized on a systematic basis over the lease term.

IFRS 16 will primarily affect the Group's accounting as a lessee of leases for property, plant and equipment which are currently classified as operating leases. The application of the new accounting model is expected to lead to an increase in both assets and liabilities and to impact on the timing of the expense recognition in the statement of profit or loss over the period of the lease. As disclosed in Note 33(b), at December 31, 2017 the Group's future minimum lease payments under non-cancellable operating leases amount to RMB33,889,000, the majority of which is payable either between 1 and 5 years after the reporting date or in more than 5 years. Some of these amounts may therefore need to be recognized as lease liabilities, with corresponding right-of-use assets, once IFRS 16 is adopted. The Group will need to perform a more detailed analysis to determine the amounts of new assets and liabilities arising from operating lease commitments on adoption of IFRS 16, after taking into account the applicability of the practical expedient and adjusting for any leases entered into or terminated between now and the adoption of IFRS 16 and the effects of discounting. Based on the preliminary assessment, the adoption of IFRS 16 is not expected to have a material impact on its consolidated financial statements.

IFRS 16 is effective for annual periods beginning on or after January 1, 2019. The standard offers different transition options and practical expedients, including the practical expedient to

#### **APPENDIX I**

# 36 POSSIBLE IMPACT OF AMENDMENTS, NEW STANDARDS AND INTERPRETATIONS ISSUED BUT NOT YET EFFECTIVE FOR THE ACCOUNTING PERIOD BEGINNING ON JANUARY 1, 2017 (Continued)

grandfather the previous assessment of which existing arrangements are, or contain, leases. If this practical expedient is chosen, the Group will apply the new definition of a lease in IFRS16 only to contracts that are entered into on or after the date of initial application. If the practical expedient is not chosen, the Group will need to reassess all of its decisions about which existing contracts are, or contain, leases, using the new definition. Depending on whether the Group elects to adopt the standard retrospectively or follow a modified retrospective method of recognizing a cumulative-effect adjustment to the opening balance of equity at the date of initial application, the Group may or may not need to restate comparative information for any changes in accounting resulting from the reassessment.

The Group has started an initial assessment of the potential impact on its consolidated financial statements. So far, the most significant impact identified is that the Group will recognize new assets and liabilities for its operating leases. In addition, the nature of expenses related to those leases will change as IFRS 16 replaces the straight-line operating lease expense with a depreciation charge for right-of-use assets and interest expense on lease liabilities.

#### 37 NON-ADJUSTING EVENTS AFTER THE REPORTING PERIOD

- (1) On March 30, 2018, the Company declared cash dividends of RMB66,477,980.31 to the shareholders.
- (2) On April 27, 2018, the Company entered into a share purchase agreement ("SPA") with Beijing Liuhe Zhongxin Culture Development Co. Limited ("Beijing Liuhe", 北京六合衆信文化發展有限公司). Pursuant to the SPA, the Company agreed to purchase 100% of the equity interest in Beijing Sanjin Electronic Corporation Limited ("Beijing Sanjin", 北京三金電子集團有限公司) from Beijing Liuhe at the consideration of RMB 211.5 million. As of the date of this report, the directors of the Company are of the opinion that the acquisition has not been completed, as the operation of Beijing Sanjin has not been taken over by the Company.

## SUBSEQUENT FINANCIAL STATEMENTS

No audited financial statements have been prepared by the Company and its subsidiaries in respect of any period subsequent to December 31, 2017.

#### UNAUDITED PRO FORMA FINANCIAL INFORMATION

The following information does not form part of the Accountants' Report from KPMG, Certified Public Accountants, Hong Kong, the Company's reporting accountants, as set out in Appendix I to this prospectus, and is included herein for information purposes only. The unaudited pro forma financial information should be read in conjunction with the section headed "Financial information" in this prospectus and the Accountants' Report set out in Appendix I to this prospectus.

#### A. UNAUDITED PRO FORMA ADJUSTED NET TANGIBLE ASSETS

The following unaudited pro forma statement of adjusted net tangible assets of our Group prepared in accordance with Rule 4.29 of the Listing Rules is for illustrative purposes only, and is set out below to illustrate the effect of the Global Offering on the consolidated net tangible assets of our Company as of December 31, 2017 as if the Global Offering had taken place on December 31, 2017.

The unaudited pro forma statement of adjusted consolidated net tangible assets has been prepared for illustrative purposes only and because of its hypothetical nature, it may not give a true picture of the financial position of the Group had the Global Offering been completed as at December 31, 2017 or at any future date.

	Consolidated net tangible assets attributable to equity shareholders of the Company as of December 31, 2017(1) Global Offering(2)		Unaudited pro forma adjusted consolidated net tangible assets attributable to equity shareholders of the Company	Unaudited pro forma adjusted consolidated net tangible assets attributable to equity shareholders of the Company per Share <sup>(3)</sup>	
	RMB'000	RMB'000	RMB'000	RMB <sup>(4)</sup>	HK\$(4)
Based on an Offer Price of HK\$17.80 per Share	1,837,650	1,107,555	2,945,205	9.21	11.02
Based on an Offer Price of HK\$24.20 per Share	1,837,650	1,524,892	3,362,542	10.51	12.57

Notes:

- (1) The consolidated net tangible assets attributable to equity shareholders of the Company as of December 31, 2017 is compiled based on the consolidated statements of financial position included in the Accountants' Report set out in Appendix I to this Prospectus, which is based on the consolidated total equity attributable to equity shareholders of the Company as of December 31, 2017 of RMB 1,868,944,000 after deducting goodwill of RMB5,670,000 and intangible assets of RMB32,176,000, and adjusting the share of intangible assets attributable to non-controlling interests of RMB6,552,000.
- (2) The estimated net proceeds from the Global Offering are based on the indicative Offer Prices of HK\$17.80 and HK\$24.20 per Share, after deduction of the underwriting fees and other related expenses payable by the Company, and 79,968,700 shares expected to be issued under the Global Offering, assuming the Over-allotment Option is not exercised. The estimated net proceeds from the Global Offering have been converted to Renminbi at the PBOC rate of HK\$1.0000 to RMB0.8359 prevailing on December 31, 2017.
- (3) The unaudited pro forma adjusted consolidated net tangible assets attributable to equity shareholders of the Company per Share is arrived at after the adjustments referred to in the preceding paragraphs and on the basis of 319,874,800 Shares in total, taking into account that 239,906,100 Shares in issue as of December 31, 2017 and 79,968,700 Shares to be issued pursuant to the Global Offering and the respective offer prices of HK\$17.80 and HK\$24.2 per Share, but do not take into account any Shares which may be issued upon the exercise of the Over-allotment Option.
- (4) The unaudited pro forma adjusted net tangible assets attributable to equity shareholders of the Company per Share amounts in RMB are converted to Hong Kong dollar with the PBOC rate of RMB0.8359 to HK\$1.0000 prevailing on December 31, 2017.
- (5) No adjustment has been made to reflect any trading result or other transactions of our Group entered into subsequent to December 31, 2017.

#### B. REPORT ON THE UNAUDITED PRO FORMA FINANCIAL INFORMATION

The following is the text of a report received from the reporting accountants, KPMG, Certified Public Accountants, Hong Kong, in respect of the Group's pro forma financial information for the purpose in this prospectus.



# INDEPENDENT REPORTING ACCOUNTANTS' ASSURANCE REPORT ON THE COMPILATION OF PRO FORMA FINANCIAL INFORMATION

### TO THE DIRECTORS OF CHINA ISOTOPE & RADIATION CORPORATION

We have completed our assurance engagement to report on the compilation of pro forma financial information of China Isotope & Radiation Corporation (the "Company") and its subsidiaries (collectively the "Group") by the directors of the Company (the "Directors") for illustrative purposes only. The unaudited pro forma financial information consists of the unaudited pro forma statement of adjusted net tangible assets as at December 31, 2017 and related notes as set out in Part A of Appendix II to the prospectus dated June 22, 2018 (the "Prospectus") issued by the Company. The applicable criteria on the basis of which the Directors have compiled the pro forma financial information are described in Part A of Appendix II to the Prospectus.

The pro forma financial information has been compiled by the Directors to illustrate the impact of the proposed offering of the ordinary shares of the Company (the "Global Offering") on the Group's financial position as at December 31, 2017 as if the Global Offering had taken place at December 31, 2017. As part of this process, information about the Group's financial position as at December 31, 2017 has been extracted by the Directors from the Group's historical financial information included in the Accountants' Report as set out in Appendix I to the Prospectus.

### Directors' Responsibilities for the Pro Forma Financial Information

The Directors are responsible for compiling the pro forma financial information in accordance with paragraph 4.29 of the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited (the "Listing Rules") and with reference to Accounting Guideline 7 "Preparation of Pro Forma Financial Information for Inclusion in Investment Circulars" ("AG 7") issued by the Hong Kong Institute of Certified Public Accountants ("HKICPA").

### **Our Independence and Quality Control**

We have complied with the independence and other ethical requirements of the Code of Ethics for Professional Accountants issued by the HKICPA, which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior.

The firm applies Hong Kong Standard on Quality Control 1 "Quality Control for Firms That Perform Audits and Reviews of Financial Statements, and Other Assurance and Related Services Engagements" issued by the HKICPA and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

### Reporting Accountants' Responsibilities

Our responsibility is to express an opinion, as required by paragraph 4.29(7) of the Listing Rules, on the pro forma financial information and to report our opinion to you. We do not accept any responsibility for any reports previously given by us on any financial information used in the compilation of the pro forma financial information beyond that owed to those to whom those reports were addressed by us at the dates of their issue.

We conducted our engagement in accordance with Hong Kong Standard on Assurance Engagements ("HKSAE") 3420 "Assurance Engagements to Report on the Compilation of Pro Forma Financial Information Included in a Prospectus" issued by the HKICPA. This standard requires that the reporting accountants plan and perform procedures to obtain reasonable assurance about whether the Directors have compiled the pro forma financial information in accordance with paragraph 4.29 of the Listing Rules, and with reference to AG 7 issued by the HKICPA.

For purpose of this engagement, we are not responsible for updating or reissuing any reports or opinions on any historical financial information used in compiling the pro forma financial information, nor have we, in the course of this engagement, performed an audit or review of the financial information used in compiling the pro forma financial information.

The purpose of pro forma financial information included in an investment circular is solely to illustrate the impact of a significant event or transaction on unadjusted financial information of the Group as if the event had occurred or the transaction had been undertaken at an earlier date selected for purposes of the illustration. Accordingly, we do not provide any assurance that the actual outcome of events or transactions as at December 31, 2017 would have been as presented.

A reasonable assurance engagement to report on whether the pro forma financial information has been properly compiled on the basis of the applicable criteria involves performing procedures to assess whether the applicable criteria used by the Directors in the compilation of the pro forma financial information provide a reasonable basis for presenting the significant effects directly attributable to the event or transaction, and to obtain sufficient appropriate evidence about whether:

- the related pro forma adjustments give appropriate effect to those criteria; and
- the pro forma financial information reflects the proper application of those adjustments to the unadjusted financial information.

The procedures selected depend on the reporting accountants' judgement, having regard to the reporting accountants' understanding of the nature of the Group, the event or transaction in respect of which the pro forma financial information has been compiled, and other relevant engagement circumstances.

The engagement also involves evaluating the overall presentation of the pro forma financial information.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Our procedures on the pro forma financial information have not been carried out in accordance with attestation standards or other standards and practices generally accepted in the United States of

### **APPENDIX II**

#### UNAUDITED PRO FORMA FINANCIAL INFORMATION

America, auditing standards of the Public Company Accounting Oversight Board (United States) or any overseas standards and accordingly should not be relied upon as if they had been carried out in accordance with those standards and practices.

We make no comments regarding the reasonableness of the amount of net proceeds from the issuance of the Company's shares, the application of those net proceeds, or whether such use will actually take place as described in the section headed "Future Plans and Use of Proceeds" in the Prospectus.

## **Opinion**

In our opinion:

- a) the pro forma financial information has been properly compiled on the basis stated;
- b) such basis is consistent with the accounting policies of the Group, and
- c) the adjustments are appropriate for the purposes of the pro forma financial information as disclosed pursuant to paragraph 4.29(1) of the Listing Rules.

#### **KPMG**

Certified Public Accountants 8th Floor, Prince's Building 10 Chater Road Central, Hong Kong

June 22, 2018

#### TAXATION ON HOLDERS OF SECURITIES

The following is a summary of certain PRC and Hong Kong taxation consequences of the ownership of H Shares by an investor who purchases such H Shares in connection with the Global Offering and holds the H Shares as capital assets. This summary does not purport to address all material taxation consequences of the ownership of H Shares, and does not take into account the specific circumstances of any particular investor, some of which may be subject to special rules. This summary is based on the tax laws of the PRC and Hong Kong as in effect on the date as of the date of this prospectus, all of which are subject to change (or changes in interpretation) and may have retroactive effect.

This section of this prospectus does not address any aspects of Hong Kong or PRC taxation other than income tax, capital gains tax, stamp duty and estate duty. Prospective investors are urged to consult their respective tax advisors regarding the PRC, Hong Kong and other taxation consequences arising from the ownership and disposal of H Shares.

#### **PRC**

#### Dividend tax

#### Individual Investors

According to the Individual Income Tax Law of the People's Republic of China (中華人民共和國個人所得稅法) ("IIT Law") issued on September 10, 1980 by the Fifth National People's Congress Standing Committee, modified on June 30, 2011 and taking effect on September 1, 2011, and the Regulations for the Implementation of the Individual Income Tax Law of the People's Republic of China (中華人民共和國個人所得税法實施條例) modified by the State Council on July 19, 2011 and taking effect on September 1, 2011, a 20% withholding tax shall be deducted from the dividend paid by Chinese company to individual investors. Meanwhile, pursuant to the Notice on Implementing Differentiated Individual Income Tax Policy for Stock Dividends of Listed Companies (Caishui [2015] No.101) (關於上市公司股息紅利差別化個人所得税政策有關問題的通知) issued by the Ministry of Finance on September 7, 2015, for shares of listed companies obtained by individuals from public offerings or the market, where the holding period exceeds one year, the dividends shall be exempted from individual income tax; for shares of listed companies obtained by individuals from public offerings or the market, where the holding period is less than one month (inclusive), the dividends shall be counted as taxable income in the full amount; where the holding period is more than one month and less than one year (inclusive), 50% of the dividends shall be counted as taxable income on a provisional basis. The individual income tax rate of 20% shall be applicable for all incomes mentioned above.

For foreign individuals who are not Chinese resident, a 20% individual income tax shall be deducted from the dividend got from Chinese company, unless there is special exempt approved by tax department of the State Council or special deduction permitted by applicable tax agreement.

According to the Circular on the Individual Income Tax Collection and Administration after the GSF [1993] No. 045 Document is Abolished (GSH [2011] No. 348) (關於國稅發[1993]045號文件廢止後有關個人所得稅徵管問題的通知) issued on June 28, 2011 by the State Administration of Taxation, if non-foreign-invested enterprises in China offer stocks in public in Hong Kong, the individual investors of overseas resident can enjoy relevant tax preference according to the tax agreement signed by the country of these investors and China. The non-foreign-invested enterprises in China ("relevant non-foreign-invested enterprises in China") who has offered stocks in public in

Hong Kong shall pay a 10% individual income tax on the dividend paid to individual investors of overseas resident ("relevant individual investors") without applying to China tax authority. If the tax rate of 10% is not applicable, relevant non-foreign-invested enterprises in China shall (i) if the country of relevant individual investors has entered an income tax treaty with China provided a tax rate lower than 10%, relevant non-foreign-invested enterprises can apply for the preference on behalf of these investors, and the excess tax shall be returned in accordance with *Measures for the Administration of Non-Resident Taxpayers' Enjoyment of the Treatment under Tax Agreements (Announcement No. 60 [2015] of the State Administration of Taxation)* (非居民納稅人享受稅收協定待遇管理辦法); (ii) if the country of relevant individual investors has entered an income tax treaty with China provided a tax rate higher than 10% but lower than 20%, relevant non-foreign-invested enterprises shall pay tax based on the treaty without application; (iii) if the country of relevant individual investors has entered no income tax treaty with China or in other cases, relevant non-foreign-invested enterprises shall pay a 20% individual income tax.

### **Enterprise Investors**

According to the *Enterprise Income Tax Law of the People's Republic of China* (中華人民共和國企業所得税法) ("EIT Law") issued on March 16, 2007 by the Tenth National People's Congress Standing Committee and taking effect on January 1, 2008, and *Regulation on the Implementation of the Enterprise Income Tax Law of the People's Republic of China* (中華人民共和國企業所得税法實施條例) issued on December 6, 2007 and taking effect on January 1, 2008 by the State Council if the non-resident enterprise has no institution or operating site in China or their income is irrelevant to the institution or operating site, an enterprise income tax of 10% shall be paid on the income obtained in China. The withholding tax can be reduced according to the treaty on the avoidance of double taxation after applying and being approved.

According to the Circular of the State Administration of Taxation on the Withholding and Remitting of Enterprise Income Tax on the Dividend Distributed by Chinese Resident Enterprise to Overseas H-Share Non-resident Enterprise (GSH [2008] No. 897) (關於中國居民企業向境外日股非居民企業股東派發股利代却代繳企業所得稅有關問題的通知) issued by the State Administration of Taxation and taking effect on November 6, 2008, Chinese resident enterprise shall pay an enterprise income tax of 10% when distributing dividend in and after 2008 to H-share holders of overseas non-resident enterprises. The withholding tax can be reduced according to the treaty on the avoidance of double taxation after applying and being approved.

According to the Arrangement on the Avoidance of Double Taxation and Smuggling of Income Tax in Mainland and Hong Kong (内地和香港特別行政區關於對所得稅避免雙重徵稅和防止偷漏稅的安排) signed by the mainland and Hong Kong on August 21, 2006 in regard to income tax issues, the Chinese government can levy on the dividend payable by Chinese company to Hong Kong residents (including natural persons and legal entities) with a rate lower than or equal to 10% of the total dividend, if Hong Kong residents hold at least 25% stock rights in Chinese company, the tax rate cannot exceed 5% of the total dividend payable after applying to and being approved by Chinese tax authority.

## Taxation treaty

Investors who are not PRC residents and reside in countries which have signed a treaty on the avoidance of double taxation with China reserve right to the reduction of withholding tax on the dividend got from Chinese companies. China has entered the treaty on the avoidance of double

taxation with many countries including but not limited to Australia, Canada, France, Germany, Japan, Malaysia, Netherlands, Singapore, England and America.

### **Capital Gains Tax**

#### Individual Investors

In accordance with the IIT Law and its implementation rules, individuals are subject to individual income tax at the rate of 20% on gains realized on the sale of equity interests in PRC resident enterprises. Under the Circular of the MOF and SAT on Declaring that Individual Income Tax Continues to Be Exempted over Individual Income Tax from Transfer of Shares (財政部、國家税務 總局關於個人轉讓股票所得繼續暫免徵收個 人所得税的通知) (Cai Shui Zi [1998] No.61) issued by the MOF and SAT on March 20, 1998, from January 1, 1997, gains of individuals from the transfer of shares of listed companies continue to be exempted from individual income tax. After the latest amendment to the IIT Law on June 30, 2011 and its implementation rules amended on July 19, 2011 and implemented on September 1, 2011, the SAT has not explicitly stated whether it will continue to exempt individuals from income tax on income derived from the transfer of listed shares. However, on December 31, 2009, the MOF, SAT and CSRC jointly issued the Circular on Relevant Issues Concerning the Collection of Individual Income Tax over the Income Received by Individuals from Transfer of Moratorium Shares of Listed Companies (關於個人轉讓上市公司限售股所得徵收個人所得稅有 關問題的通知) (Cai Shui [2009] No.167), which provides that individuals' income from transferring listed shares on certain domestic exchanges shall continue to be exempted from individual income tax, except for shares of certain specified companies (as defined in the Supplementary Circular on Relevant Issues Concerning the Collection of Individual Income Tax (關於個人轉讓上市公司限售股所得徵收個人所得税有關問題的補充通知) (Cai Shui [2010] No.70) over the Income Received by Individuals from Transfer of Listed Shares Subject to Sales Limitation issued by the MOF, SAT and CSRC on November 10, 2010). As of the Latest Practicable Date, the aforesaid provision has not expressly provided that individual income tax shall be collected from non-PRC resident individuals on the sale of shares of PRC resident enterprises listed on overseas stock exchanges such as the Hong Kong Stock Exchange. In practice, the PRC tax authorities have not collected income tax from non-PRC resident individuals on gains from the sale of shares of PRC resident enterprises listed on overseas stock exchanges.

### **Enterprise Investors**

In accordance with the EIT Law and its implementation provisions, a non-resident enterprise is generally subject to a 10% corporate income tax on PRC-sourced income, including gains derived from the disposal of equity interests in a PRC resident enterprise, if it does not have an establishment or place in the PRC or has an establishment or premises in the PRC but the PRC-sourced income is not connected with such establishment or premise. Such income tax for non-resident enterprises are deducted at source, where the payer of the income are required to withhold the income tax from the amount to be paid to the non-resident enterprise when such payment is made or due. The withholding tax may be reduced pursuant to applicable treaties or agreements on avoidance of double taxation.

# Taxation Policy of Shanghai-Hong Kong Stock Interconnection and Shenzhen-Hong Kong Stock Interconnection

Pursuant to Notice on Continuing to Implement the Relevant Individual Income Tax Policies for Shanghai-Hong Kong Stock Interconnection ((關於繼續執行滬港通股票市場交易互聯互通機制有關個人所得稅政策的通知) (Cai Shui [2017] No.78) which came into effect on

November 17, 2017, and Notice on Tax Policies for Shenzhen-Hong Kong Stock Interconnection Pilot Programme (關於深港股票市場交易互聯互通機制 試點有關稅收政策的通知) (Cai Shui [2016] No. 127) which came into effect on December 5, 2016, (1) Individual mainland investors' income from price differences of investment in stocks listed on the Hong Kong Stock Exchange through the Shanghai-Hong Kong Stock Interconnection shall be temporarily exempted from individual income tax from November 17, 2017 to December 4, 2019, and that through Shenzhen-Hong Kong Stock Interconnection shall be temporarily exempted from individual income tax from December 5, 2016 to December 4, 2019. (2) Mainland corporate investors' income from price differences of investment in H shares of the Company through the Shanghai-Hong Kong Stock Interconnection or Shenzhen-Hong Kong Stock Interconnection shall be included into the total income and shall be subject to the enterprise income tax. (3) For dividends and bonuses obtained by individual mainland investors and mainland securities investment funds from investment in H shares of the Company through the Shanghai-Hong Kong Stock Interconnection or Shenzhen-Hong Kong Stock Interconnection, the Company withholds the individual income tax at the tax rate of 20%. (4) Mainland corporate investors' income from dividends and bonuses of investment in H shares of the Company through the Shanghai-Hong Kong Stock Interconnection or Shenzhen-Hong Kong Stock Interconnection shall be included into the total income and shall be subject to the enterprise income tax. The Company shall not withhold income tax of dividends and bonuses for mainland corporate investors.

#### Other Tax Issues in China

## PRC stamp duty

According to the *Provisional Regulations of the People's Republic of China on Stamp Tax* (中華人民共和國印花税暫行條例) amended on January 8, 2011, the PRC stamp duty levied on the transfer of stocks of Chinese listing companies is not applicable to the H-share purchased and disposed overseas by non-Chinese investors. The *Provisional Regulations of the People's Republic of China on Stamp Tax* (中華人民共和國印花税暫行條例實施細則) specifies that the PRC stamp duty is only applicable to documents signed or received in China, having legal effect in China and protected by Chinese laws.

### Estate duty

In current legal environment of China, non-Chinese resident holding H-share shall pay no estate duty.

#### Main PRC Taxes of the Company

#### Income tax

According to the EIT Law, enterprises and institutions founded in China shall pay an enterprise income tax at a rate of 25%.

#### VAT

According to the Provisional Regulations of the People's Republic of China on Value-added Tax (中華人民共和國增值税暫行條例) amended on February 6, 2016, enterprises and individuals that engage in the sale of goods, supply of processing, repair and replacement services, and import of goods within the territory of the PRC as specified by such regulations are subject to Value-added tax. Unless otherwise provided in the provisional regulations, the tax rate is generally 17% for taxpayers selling or importing goods.

Pursuant to the Pilot Plan for Levying Value-added Tax in Lieu of Business Tax (Caishui [2011] No.110) (營業稅改徵增值稅試點方案) promulgated by the MOF and SAT, effective on November 16, 2011, starting from January 1, 2012, the State started the pilot taxation reform of collecting VAT in lieu of business tax in certain regions (including Shanghai and Beijing) and in certain pilot industries (including transportation and certain modern service industries).

Pursuant to the Notice on Implementing the Pilot Plan for Levying Value-added Tax in Lieu of Business Tax Nationwide (Caishui [2016] No.36) (關於全面推開營業稅改征增值稅試點的通知) issued by the MOF and SAT on March 23, 2016 and effective from May 1, 2016, from May 1, 2016 onwards, the pilot reform for the transition from business tax to VAT ("Business Tax to VAT") is implemented nationwide. Pursuant to the Implementation Measures for Transition from Business Tax to Value-added Tax (營業稅改征增值稅試點實施辦法), unless otherwise provided in the implementation measures, the tax rate is generally 6% for tax payers who conducted taxable behaviors.

### **HONG KONG**

#### Tax on Dividends

Under the current practice of the Inland Revenue Department of Hong Kong, no tax is payable in Hong Kong in respect of dividends paid by us.

## **Capital Gains and Profit Tax**

No tax is imposed in Hong Kong in respect of capital gains from the sale of H Shares. However, trading gains from the sale of the H Shares by persons carrying on a trade, profession or business in Hong Kong, where such gains are derived from or arise in Hong Kong from such trade, profession or business will be subject to Hong Kong profits tax, which is currently imposed at the maximum rate of 16.5% on corporations and at the maximum rate of 15% on unincorporated businesses. Certain categories of taxpayers (for example, financial institutions, insurance companies and securities dealers) are likely to be regarded as deriving trading gains rather than capital gains unless these taxpayers can prove that the investment securities are held for long-term investment purposes. Trading gains from sales of H Shares effected on the Hong Kong Stock Exchange will be considered to be derived from or arise in Hong Kong. Liability for Hong Kong profits tax would thus arise in respect of trading gains from sales of H Shares effected on the Hong Kong Stock Exchange realized by persons carrying on a business of trading or dealing in securities in Hong Kong.

### **Stamp Duty**

Hong Kong stamp duty, currently charged at the ad valorem rate of 0.1% on the higher of the consideration for or the market value of the H Shares, will be payable by the purchaser on every purchase and by the seller on every sale of Hong Kong securities, including H Shares (in other words, a total of 0.2% is currently payable on a typical sale and purchase transaction involving H Shares). In addition, a fixed duty of HK\$5.00 is currently payable on any instrument of transfer of H Shares. Where one of the parties is a resident outside Hong Kong and does not pay the ad valorem duty due by it, the duty not paid will be assessed on the instrument of transfer (if any) and will be payable by the transferee. If no stamp duty is paid on or before the due date, a penalty of up to ten times the duty payable may be imposed.

### **Estate Duty**

The Revenue (Abolition of Estate Duty) Ordinance 2005 came into effect on February 11, 2006 in Hong Kong, pursuant to which no Hong Kong estate duty is payable and no estate duty clearance papers are needed for an application of a grant of representation in respect of holders of H Shares whose deaths occur on or after February 11, 2006.

#### FOREIGN EXCHANGE

The lawful currency of the PRC is the Renminbi, which is currently subject to foreign exchange control and is not freely convertible into foreign exchange. The SAFE, under the authority of PBOC, is responsible for administration of all matters relating to foreign exchange, including the enforcement of foreign exchange control regulations.

In accordance with the Notice of the State Council on Further Reforming the Foreign Exchange Management System (Guo Fa [1993] No. 89) (關於進一步改革外匯管理體制的通知) issued by the State Council, since January 1, 1994, the conditional convertibility of Renminbi in current account items has been implemented, and the official Renminbi exchange rate and the market rate for Renminbi have been unified. The former dual exchange rate system for Renminbi had been abolished and a unitary and managed floating rate based on market demand and supply was introduced. The PBOC set and published daily the medium price of Renminbi against the US dollar and the exchange rates of Renminbi against other currencies in reference to the changes in the international foreign exchange markets, which was permitted to float to a certain extent in foreign exchange transactions.

On January 29, 1996, the State Council promulgated new *Regulations of the PRC for Foreign Exchange Control* (中華人民共和國外匯管理條例) (the "Foreign Exchange Control Regulations") which became effective on April 1, 1996. The Foreign Exchange Control Regulations classifies all international payments and transfers into current account items and capital account items. Most of the current account items are no longer subject to SAFE's approval, while capital account items still are. The Foreign Exchange Control Regulations were subsequently amended on January 14, 1997 and August 1, 2008. The latest amendment to the Foreign Exchange Control Regulations clearly states that the State will not impose any restriction on international current account payments and transfers.

On June 20, 1996, the PBOC promulgated the Regulations for the Administration of Settlement, Sale and Payment of Foreign Exchange (結匯、售匯及付匯管理規定) (the "Settlement Regulations") which became effective on July 1, 1996. The Settlement Regulations abolished the remaining restrictions on convertibility of foreign exchange under current account items, while retaining the existing restrictions on foreign exchange transactions under capital account items.

According to the Announcement on Improving the Reform of the Renminbi (PBOC Announcement [2005] No. 16) (關於完善人民幣匯率形成機制改革的公告) issued by the PBOC on July 21, 2005 and effective on the same date, the PRC began to implement a managed floating exchange rate system in which the exchange rate would be determined based on market supply and demand and adjusted with reference to a basket of currencies. The Renminbi exchange rate was no longer pegged to the US dollar. The PBOC would publish the closing price of the Renminbi against foreign currencies such as the US dollar in the inter-bank foreign exchange market after the closing of the market on each business day, and would fix the central parity for Renminbi transactions on the following business day.

Starting from January 4, 2006, the PBOC introduced over-the-counter transactions into the inter-bank spot foreign exchange market for the purpose of improving the formation mechanism of the

central parity of Renminbi exchange rates, and the practice of matching was kept at the same time. In addition to the above, the PBOC introduced the market-maker rule to provide liquidity to the foreign exchange market. On July 1, 2014, the PBOC further improved the formation mechanism of the RMB exchange rate by authorizing the China Foreign Exchange Trade System to make inquiries with the market makers before the inter-bank foreign exchange market opens every day for their offered quotations which are used as samples to calculate the central parity of the RMB against the USD, and announce it at 9:15 a.m. on each business day.

On August 5, 2008, the State Council promulgated the revised Regulations of the PRC for Foreign Exchange Control (中華人民共和國外匯管理條例) (the "Revised Foreign Exchange Control Regulations"), which have made substantial changes to the foreign exchange supervision system of the PRC. First, the Revised Foreign Exchange Control Regulations have adopted an approach of balancing the inflow and outflow of foreign exchange. Foreign exchange income received overseas can be repatriated or deposited overseas, and foreign exchange and foreign exchange settlement funds under the capital account are required to be used only for purposes as approved by the competent authorities and foreign exchange administrative authorities. Second, the Revised Foreign Exchange Control Regulations have improved the mechanism for determining the RMB exchange rate based on market supply and demand. Third, the Revised Foreign Exchange Control Regulations have enhanced the monitoring of cross-border foreign currency fund flows. In the event that revenues and costs in connection with international transactions suffer or may suffer a material misbalance, or the national economy encounters or may encounter a severe crisis, the State may adopt necessary safeguard or control measures. Fourth, the Revised Foreign Exchange Control Regulations have enhanced the supervision and administration of foreign exchange transactions and grant extensive authorities to the SAFE to enhance its supervisory and administrative powers.

Pursuant to the relevant State rules and regulations, all of the foreign exchange revenue of the PRC enterprises from the existing current account transactions may be retained or sold to financial institutions operating a foreign exchange sale or settlement business. Foreign exchange income from loans granted by overseas entities or from the issuance of bonds and shares is not required to be sold to, but may be deposited in foreign exchange accounts at, designated foreign exchange banks.

PRC enterprises (including foreign investment enterprises) which need foreign exchange for transactions relating to current account items may, without the approval of the SAFE, effect exchange and payment from their foreign exchange accounts or at the designated foreign exchange banks, on the strength of valid receipts and proof. Foreign investment enterprises which need foreign exchange for the distribution of profits to their shareholders and PRC enterprises which, in accordance with regulations, are required to pay dividends to their shareholders in foreign exchange may, on the strength of resolutions of the board of directors or the shareholders' meeting approving the distribution of profits, effect exchange and payment from their foreign exchange accounts or convert and pay dividends at the designated foreign exchange banks.

The Decision of the State Council on Canceling and Adjusting a Group of Administrative Approval Items and Other Matters (Guo Fa [2014] No.50) (國務院關於取消和調整一批行政審批項目等事項的決定), which was promulgated by the State Council on October 23, 2014, canceled the administrative approval by the SAFE and its branches over matters concerning the repatriation and settlement of foreign exchange of overseas-raised funds through overseas listing.

According to the Notice on Relevant Issues Concerning the Foreign Exchange Administration of Overseas Listing (Hui Fa [2014] No.54) (關於境外上市外滙管理有關問題的通知) issued by SAFE on December 26, 2014, a domestic issuer shall, within 15 working days after the completion of the offering of shares for its overseas listing, register overseas listing with the Foreign Exchange Bureau at the place of its incorporation. The proceeds raised from overseas listing of a domestic issuer can be repatriated to PRC or deposited overseas, and the usage of such proceeds shall be consistent with the purpose as specified in the prospectus and other disclosure documents. Approval by the SAFE is needed to convert the funds in the domestic designated account to Renminbi.

According to the Notice on Revolutionize and Regulate Capital Account Settlement Management Policies (Hui Fa [2016] No.16) (關於改革和規範資本項目結滙管理政策的通知) issued by the SAFE on June 15, 2016, foreign currency earnings in capital account that relevant policies of willingness exchange settlement have been clearly implemented on (including the recalling of raised capital by overseas listing) may undertake foreign exchange settlement in the banks according to actual business needs of the domestic institutions. The tentative percentage of foreign exchange settlement for foreign currency earnings in capital account of domestic institutions is 100%, subject to adjust of the SAFE in due time in accordance with international revenue and expenditure situations.

This Appendix sets forth summaries of certain aspects of PRC laws and regulations which are relevant to our Company's operations and business. Laws and regulations relating to taxation in the PRC are discussed separately in "Appendix III — Taxation and Foreign Exchange". This Appendix also contains a summary of certain Hong Kong legal and regulatory provisions, including summaries of certain of the material differences between PRC and Hong Kong company law, certain requirements of the Hong Kong Listing Rules and additional provisions required by the Hong Kong Stock Exchange for inclusion in the articles of association of the PRC issuers.

#### PRC LEGAL SYSTEM

The PRC legal system is composed of the constitution, laws, administrative regulations, local regulations, rules and regulations of departments of the State Council, rules and regulations of local governments, autonomy regulations and separate rules of autonomous regions and international treaties of which the PRC government is a signatory. Court judgments do not constitute binding precedents, although they may be used for the purpose of judicial reference and guidance. *The PRC Constitution* (中華人民共和國憲法) (the "Constitution"), enacted by the NPC, is the basis of the PRC legal system and has supreme legal authority.

The NPC and the Standing Committee of the NPC are empowered to exercise the legislative power of the State. The NPC has the power to formulate and amend the basic laws governing criminal and civil matters, State institutions and other matters. The Standing Committee of the NPC is empowered to formulate and amend laws other than those required by to be enacted by the NPC and to supplement and amend any parts of laws enacted by the NPC during its adjournment, provided that such supplements and amendments shall not be in conflict with the principles of such laws.

The State Council enacts administrative regulations under the Constitution and laws.

People's congresses of provinces, autonomous regions and municipalities and their respective standing committees may formulate local regulations based on the specific circumstances and requirements of the local administrations, provided that such local regulations shall not be in conflict with the constitution, laws, and administrative regulations. People's congresses of large cities and their respective standing committees may enact local regulations based on the specific circumstances and actual needs which shall come into effect upon approval from the respective standing committees of the people's congresses of the provinces and autonomous regions, provided that such local regulations shall not be in conflict with the constitution, laws, and administrative regulations.

People's congresses of autonomous regions may enact autonomy regulations and separate rules in the light of the political, economic and cultural characteristics of the local nationalities, which shall come into effect upon approval from the Standing Committee of the NPC. Adaptations of provisions of laws and administrative regulations may be introduced to the autonomy regulations and separate rules so long as they do not contravene the basic principles of the laws or administrative regulations, and no adaptations shall be made to the specific provisions on national autonomous areas in the constitutions, national region autonomy law and other relevant laws and administrative regulations.

The ministries, commissions, PBOC, Audit Office and institutions with administrative functions directly under the State Council may formulate rules and regulations within the jurisdiction of their respective departments based on the laws and the administrative regulations, decisions and rulings of the State Council. Provisions of departmental rules and regulations shall be formulated for

the purpose of the enforcement of the laws and administrative regulations, decisions and rulings of the State Council. The people's governments of provinces, autonomous regions, municipalities and large cities may formulate rules and regulations based on the laws, administrative regulations and relevant local regulations.

According to the PRC Constitution, the authority of the interpretation of laws shall be vested to the Standing Committee of the NPC. According to the Decision of the Standing Committee of Regarding Strengthening Interpretation the of (全國人民代表大會常務委員會關於加強法律解釋工作的決議) passed on June 10, 1981, interpretation on the application of laws and decrees in court trails and the procuratorial work of the procuratorates shall be given by the Supreme People's Court and the Supreme People's Procuratorate, respectively. Interpretation of the laws and decrees unrelated to trials and procuratorial work shall be given by the State Council and the competent ministries and commissions. In the case that clarification or additional provisions shall be made for the local regulations, the standing committees of the people's congresses of provinces, autonomous regions and municipalities which enacted such regulations shall give the interpretation or formulate the additional provisions. Interpretation on the application of local regulations shall be given by the competent departments under the people's government of the respective provinces, autonomous regions and municipalities.

#### PRC JUDICIAL SYSTEM

Under the Constitution and the *Law of the PRC of Organization of the People's Courts* (中華人民共和國人民法院組織法) which was enacted on July 1, 1979 and last amended on October 31, 2006 and took effect on January 1, 2007, the judicial system in PRC is made up of the Supreme People's Court, the local people's courts, military courts and other special people's courts. The local people's courts are comprised of the basic people's courts, the intermediate people's courts and the higher people's courts. The basic people's courts may be organized into civil, criminal, and economic tribunals. The intermediate people's courts may be organized into divisions similar to those of the basic people's courts, and may be further organized into other special divisions. The people's courts at lower levels are subject to supervision of the people's courts at higher levels. The Supreme People's Court is the highest judicial organ of the PRC and it has the power to supervise the administration of justice by the local people's courts at all levels and all special people's courts. The people's procuratorates also have the right to exercise legal supervision over the trial activities of people's courts.

The people's courts adopt a "second instance as final" appellate system in the trail of the cases. A party to the case concerned may appeal against the judgment and ruling of the first instance by the local people's courts to the people's courts at the next higher level in accordance with the legal procedures. The people's procuratorate may appeal to the people's court at the next higher level in accordance with the legal procedures. In the absence of any appeal by any parties to the case concerned or any appeal by the people's procuratorate within the stipulated period, the judgment and ruling of the first instance by the local people's courts shall be final and legally binding. Judgments and rulings of the second instance of the intermediate people's courts, the higher people's courts and Supreme People's Court and the judgments and rulings of the first instance of the Supreme People's Court shall be the final judgments and rulings. The death penalty shall be reported to the Supreme People's Court for approval unless it is otherwise adjudged by the Supreme People's Court.

The Civil Procedure Law of the PRC (中華人民共和國民事訴訟法) (the "PRC Civil Procedure Law"), which was adopted on April 9, 1991 and last amended on August 31, 2012 and became

effective on January 1, 2013, sets forth the criteria for instituting a civil case, the jurisdiction of the people's courts, the procedures to be followed for conducting a civil action and the procedures for enforcement of a civil judgment or order. All parties to a civil action conducted within the PRC must comply with the PRC Civil Procedure Law. Generally, a civil case is initially heard by a local court of the municipality or province in which the defendant resides. The parties to a contract may, by an express agreement, select a competent court where civil actions may be brought, provided that the competent court has jurisdiction over either the plaintiff's or the defendant's place of residence, the place of execution or performance of the contract, the object of the action or locations which have substantial connections with the dispute. However, such selection cannot violate the stipulations of hierarchical jurisdiction and exclusive jurisdiction in any case.

A foreign individual or enterprise generally has the same litigation rights and obligations as a citizen or legal person of the PRC. If a foreign country's judicial system limits the litigation rights of PRC citizens and enterprises, the PRC courts may impose the same limitations to the citizens and enterprises of that foreign country within the PRC. If any party to a civil action refuses to comply with a judgment or order made by a people's court or an award granted by an arbitration panel in the PRC, the other party may apply to the people's court to request for enforcement of the judgment, order or award. There are time limits imposed on the right to apply for such enforcement and the time limit is two years. If a person fails to satisfy a judgment made by the court within the stipulated time, the court will, upon application by either party, mandatorily enforce the judgment.

A party seeking to enforce a judgment or order of a people's court against a party who is not located within the PRC and does not own any property in the PRC, may apply to a foreign court with proper jurisdiction for recognition and enforcement of the judgment or order. In the case of an application or request for recognition and enforcement of a legally effective judgment or order of a foreign court, the people's court shall, after having examined it in accordance with the international treaties entered into or acceded to by the PRC or with the principle of reciprocity and having arrived at the conclusion that it does not contravene the primary principles of the laws of the PRC nor violates its sovereignty, security or social and public interests, recognize the validity of the judgment or order, and, if required, issue a writ of enforcement and enforce it in accordance with the relevant regulations. If the application or request contravenes the primary principles of the laws of the PRC or violates its sovereignty, security or social and public interests, the people's court shall not recognize and enforce it.

# THE COMPANY LAW, SPECIAL REGULATIONS AND MANDATORY PROVISIONS OF PRC

The PRC Company Law which was promulgated on December 29, 1993 by the Standing Committee of the NPC, last amended on December 28, 2013 and came into effect on March 1, 2014 regulates the organization and operation of companies and protects the legitimate rights and interests of companies, shareholders and creditors. The latest amendment to the PRC Company Law in 2013 has canceled the restriction on the minimum registered capital and replaced the registered paid-up share capital system by the registered subscribed capital system.

The Special Regulations of the State Council on the Overseas Offering and Listing of Shares by Joint Stock Limited Companies (國務院關於股份有限公司境外募集股份及上市的特別規定) (the "Special Regulations") were promulgated by the Standing Committee Meeting of the State Council, and took

effect on August 4, 1994. The Special Regulations are formulated according to the Company Law (1993) in respect of the overseas share subscription and listing of joint stock limited companies. The Mandatory Provisions were issued jointly by the former Securities Commission of the State Council and the former State Economic Restructuring Commission on September 29, 1994, prescribing provisions which must be incorporated into the articles of association of joint stock limited companies to be listed overseas. Accordingly, the Mandatory Provisions have been incorporated in the Articles of Association (which are summarized in "Appendix V — Summary of the Articles of Association"). The term "company" as mentioned in the Appendix refers to a limited liability company established in accordance with the provisions of the PRC Company Law which is qualified for H-share issuance.

Copies of the Chinese text of the PRC Company Law, Special Regulations and the Mandatory Provisions together with copies of their unofficial English translations thereof are available for inspection as mentioned in "Appendix VII — Documents Delivered to the Registrar of Companies and Available for Inspection".

Main provisions in PRC Company Law, Special Regulations and Mandatory Provisions are summarized as follows:

#### General

A joint-stock limited liability company (hereinafter referred to as "company") is a corporate legal person incorporated under the PRC Company Law, whose registered capital is divided into shares of equal nominal value. The liability of its shareholders is limited to the extent of the shares held by them, and the liability of the company is limited to the full amount of all the assets owned by it.

A state-owned enterprise that is restructured into a company must comply with the conditions and requirements specified by law and administrative regulation, for the modification of its operation mechanisms, the systematic handling and evaluation of our company's assets and liabilities and the establishment of internal management organs.

#### **Incorporation**

A company may be incorporated by promotion or subscription. A company may be incorporated by two to 200 promoters, but at least half of the promoters must reside in the PRC. Companies incorporated by promotion are companies with the registered capital entirely subscribed for by the promoters. Where companies are incorporated by subscription, the promoters are required to subscribe for not less than 35% of the total number of shares of a company unless otherwise stipulated by laws and regulations, and the remaining shares can be offered to the public or specific persons, unless otherwise required by law.

For companies incorporated by promotion, the registered capital has to be the total capital subscribed for by all promoters as registered with the company registration authority. It shall not raise capital from others before the promoters fully pay the capital subscribed by them; for companies established by public subscription, the registered capital is the amount of total paid-up capital as registered with the company registration authority.

The promoters shall convene an inaugural meeting within 30 days after the issued shares have been fully paid up, and shall 15 days before the meeting notice all subscribers or make a public announcement of the date of the inaugural meeting.

The inaugural meeting may be convened only with the presence of shareholders holding shares representing more than 50% of the total issued shares of the company. At the inaugural meeting, matters including the adoption of draft articles of association proposed by the promoter(s) and the election of the board of directors and the supervisory committee of the company will be dealt with. All resolutions of the meeting require the approval of subscribers with more than half of the voting rights present at the meeting.

Within 30 days after the conclusion of the inaugural meeting, the board of directors shall apply to the company registration authority for registration of the establishment of the company. The company is formally established and has the status of a legal person after the approval for registration has been given and a business license has been issued.

Where after the incorporation of a company, a promoter fails to pay in full the subscription moneys in accordance with the provisions of the company's articles of association, he shall pay them in full; and the other promoters shall bear joint and several liability. Where it is discovered that the actual evaluation of the non-currency property used as capital contributions for the incorporation of the company is obviously less than the evaluation prescribed by the company' articles of association, the promoters making such contributions shall make up the difference; and the other promoters shall bear joint and several liability.

The promoters of a company shall bear the following liabilities:

Where our company cannot be incorporated, they shall bear the joint and several liability for all the debts and expenses incurred in the act of incorporation;

Where the company cannot be incorporated, they shall bear the joint and several liability for refunding the subscription moneys paid by the subscribers, plus their bank deposit interest calculated for the same period of time; and

Where the interests of the company are impaired due to the fault committed by the promoters in the process of the incorporation of the company, they shall bear the liability to pay compensation to the company.

### Share Capital

The promoters of a company can make capital contributions in cash or in kind, that can be valued in currency and transferable according to law such as intellectual property rights or land use rights based on their appraised value, except for the property that is not allowed to be used as capital contributions, as is provided for by laws or administrative regulations.

If capital contribution is made other than in cash, valuation and verification of the property contributed must be carried out and converted into shares according to the laws. Non-current property used for capital contributions shall be evaluated and verified, and shall not be overvalued or undervalued. Where laws or administrative regulations provide otherwise, those provisions shall prevail.

A company may issue registered or bearer shares. However, shares issued to promoter(s) or legal person(s) shall be in the form of registered shares and shall be registered under the name(s) of such promoter(s) or legal person(s) and shall not be registered under a different name or the name of a representative.

The Special Regulations and the Mandatory Provisions provide that shares issued to foreign investors and listed overseas shall be issued in registered form and shall be denominated in Renminbi and subscribed for in foreign currency.

Under the Special Regulations and the Mandatory Provisions, shares issued to foreign investors and investors from the territories of Hong Kong Special Administrative Region, Macau Special Administrative Region, China and Taiwan and listed overseas are known as overseas listed foreign invested shares, and those shares issued to investors within the PRC other than the territories specified above are known as domestic shares.

A company may offer its shares to the public overseas with approval by the securities administration department of the State Council. Specific provisions shall be specifically formulated by the State Council. Under the Special Regulations, upon approval of CSRC, a company may agree, in the underwriting agreement in respect of an issue of overseas listed foreign invested shares, to retain not more than 15% of the aggregate number of overseas listed foreign invested shares proposed to be issued after accounting for the number of underwritten shares.

The shares shall be issued in compliance with the principles of fairness and impartiality. The shares of the same class must carry the same rights. Shares shall be issued on the same conditions and at the same price. All units and individuals shall pay the same price for each of the share they subscribe for. The share offering price may be equal to or greater than nominal value, but shall not be less than nominal value. Shares issued by a company with limited liability may be either registered shares or bearer shares.

The transfer of shares by shareholders should be conducted via the legally established stock exchange or in accordance with other methods as stipulated by the State Council. Transfer of registered shares by a shareholder must be made by means of an endorsement or by other means stipulated by law or administrative regulation. Bearer shares are transferred by delivery of the share certificates to the transferee.

Shares held by a promoter of a company shall not be transferred within one year after the date of the company's incorporation. Shares issued by a company prior to the public offer of its shares shall not be transferred within one year from the date of listing of the shares of the company on a stock exchange. Directors, supervisors and senior management of a company shall not transfer over 25.0% of the shares held by each of them in the company each year during their term of office and shall not transfer any share of the company held by each of them within one year after the listing date. There is no restriction under the PRC Company Law as to the percentage of shareholding a single shareholder may hold in a company.

Transfers of shares may not be entered in the register of shareholders within 20 days before the date of a shareholders' meeting or within five days before the benchmark date determined by the company for distribution of dividends.

### Increase in Capital

Under the PRC Company Law, an increase in the capital of a company by means of an issue of new shares must be approved by shareholders in general meeting.

#### APPENDIX IV

# SUMMARY OF PRINCIPAL LEGAL AND REGULATORY PROVISIONS

Save for the above-mentioned shareholder approval requirement, for a public offering of new shares, the *PRC Securities Law* (中華人民共和國證券法) (the "Securities Law") provides that the company shall: (i) have a sound organizational structure with satisfactory operating record; (ii) have the capability of continuing profitability and a healthy financial position; (iii) have no false statements and other material breaches in the financial and accounting documents of the last three years; (iv) fulfill other conditions required by the securities administration department of the State Council as approved by the State Council.

Public offer requires the approval of the securities administration department of the State Council.

After payment in full for the new shares issued, a company must change its registration with the company registration authority and issue a public notice accordingly.

### Reduction of Share Capital

A company may reduce its registered capital in accordance with the following procedures prescribed by the PRC Company Law:

- (i) the company shall prepare a balance sheet and an inventory of the assets;
- (ii) the reduction of registered capital must be approved by shareholders in general meeting;
- (iii) the company shall inform its creditors of the reduction in registered capital within ten days and publish an announcement of the reduction in the newspaper within 30 days after the resolution approving the reduction has been passed;
- (iv) the creditors of the company may within the statutory prescribed time limit require the company to pay its debts or provide guarantees covering the debts; The creditors shall, within 30 days from the date they receive the written notice, or within 45 days from the date the announcement is made in the case of those who have not received such written notice, have the right to claim full repayment of their debts or provision of a corresponding guarantee from the company; and
- (v) the company must apply to the company registration authority for registration of the reduction in registered capital.

## Repurchase of Shares

A company may not purchase its own shares other than for the purpose of:

- (i) reducing the registered capital of the company;
- (ii) merging with another company holding shares of this company; or
- (iii) awarding the employees of this company with shares; or
- (iv) purchasing the company's own shares upon request of its shareholders who vote against the resolution regarding the merger or division of the company in a general meeting.

Purchase of its own shares by a company due to the reasons specified in Subparagraph (i), (ii) or (iii) of the preceding paragraph shall be subject to resolution adopted by the shareholders general

assembly. Where a company purchases its own shares on grounds of Subparagraph (i) as specified in the preceding paragraph, such shares shall be canceled within 10 days from the date it purchases them; and where the shares are purchased on grounds of Subparagraph (ii) or (iv), such shares shall be transferred or canceled within six months.

The number of its own shares purchased by a company in accordance with the provisions of Subparagraph (iii) of the first paragraph shall not exceed five percent of the total number of the shares issued by the company; the funds used for such purchase shall be allotted from the after-tax profits of the company; and the shares purchased shall be transferred to its staff and workers within one year.

A company shall not accept its own shares as the subject matter of a mortgage.

## Transfer of Shares

Shares may be transferred in accordance with the relevant laws and regulations.

Registered shares shall be transferred by means of endorsement by shareholders or by such other means as provided for by laws or administrative regulations; and after such transfer, the company shall register the names or titles and domiciles of the transferees in its roster of shareholders. No registration of modification to the roster of shareholders as stipulated by the preceding paragraph shall be made within the period of 20 days prior to the convening of a meeting of the shareholders general assembly or within the period of 5 days prior to the date of record on which the company decides to distribute dividends.

Transfer of bearer shares shall become effective immediately after a shareholder delivers such share certificates to a transferee.

Shares held by the promoters of a company shall not be transferred within one year from the date the company is incorporated. Directors, supervisors and senior managers of a company shall declare to the company the numbers of the company's shares held by them and the changes of the shares they hold, and the number of the company's shares annually transferred by each of them during their term of office shall not exceed 25 percent of the total number of the company's shares held by them respectively; The company's shares held by the persons mentioned above shall not be transferred within six months after they leave office. The company's articles of association may stipulate other restrictive provisions on the transfer of the company's shares held by the directors, supervisors and senior managers of the company.

#### **Shareholders**

Shareholders have such rights and obligations as set forth in the articles of association of the company. The articles of association of a company are binding on each shareholder. Under the PRC Company Law and the Mandatory Provisions, the rights of a shareholder include:

- (i) to attend in person or appoint a proxy to attend shareholders' general meetings, and to vote in respect of the number of shares held;
- (ii) to transfer his shares in accordance with applicable laws and regulations and the articles of association of the company;

- (iii) to inspect the company's articles of association, shareholders' registers, records of debentures, minutes of shareholders' general meetings, board resolutions, supervisors resolutions, financial and accounting reports and put forward proposals or raise questions about the business operations of the company;
- (iv) if any directors or senior officers damages the shareholder's interests by violating law or administrative regulations or articles of association, the shareholders may lodge an action in the people's court;
- (v) to receive dividends and other distributions in respect of the number of shares held;
- (vi) to obtain surplus assets of the company upon its termination in proportion to his or her shareholding; to claim against other shareholders who abuse their shareholders' rights for the damages; and
- (vii) any other shareholders' rights specified in the company's articles of association.

The obligations of a shareholder include the obligation to abide by the company's articles of association, to pay the subscription monies in respect of the shares subscribed for, to be liable for the company's debts and liabilities to the extent of the amount of subscription monies agreed to be paid in respect of the shares taken up by him/her, not to abuse shareholders' right to damage the interests of the company or other shareholders of the company; not to abuse the independent status of the company as a legal person and the limited liability to damage the interests of the creditors of the company and any other shareholders' obligation specified in the company's articles of association.

### Shareholders' General Meetings

The shareholders' general meeting is the organ of authority of the company, which exercises its powers in accordance with the PRC Company Law.

The shareholders' general meeting exercises the following principal powers:

- (i) to decide on the company's operational policies and investment plans;
- (ii) to elect or replace the directors, supervisors who are not representatives of the employees and decide on matters relating to the remuneration of directors and supervisors;
- (iii) to consider and approve reports of the board of directors;
- (iv) to consider and approve reports of the supervisory committee;
- (v) to consider and approve the company's proposed annual financial budget and financial accounts;
- (vi) to consider and approve the company's proposals for profit distribution and for recovery of losses;
- (vii) to decide on any increase or reduction in the company's registered capital;
- (viii) to decide on the issue of bonds by the company;
- (ix) to decide on issues such as merger, division, dissolution, liquidation or change of the form of the company and other matters;
- (x) to amend the articles of association of the company; and
- (xi) other powers specified in the articles of association of the company.

#### APPENDIX IV

# SUMMARY OF PRINCIPAL LEGAL AND REGULATORY PROVISIONS

A shareholders' general meeting is required to be held once every year. An extraordinary shareholders' general meeting is required to be held within two months after the occurrence of any of the following circumstances:

- (i) the number of directors is less than the number provided for in the PRC Company Law or less than two-thirds of the number specified in the company's articles of association;
- (ii) the losses of the company which are not made up reach one-third of the company's total paid up share capital; a request by a shareholder that holds, or by shareholders that hold in aggregate, 10% or more of the company's shares;
- (iii) when deemed necessary by the board of directors;
- (iv) when the supervisory committee proposes convening it; or
- (v) other matters required by the company's articles of association.

Shareholders' general meetings shall be convened by the board of directors, and presided over by the chairman of the board of directors. In the event that the chairman is incapable of performing or not performing his duties, the meeting shall be presided over by the vice chairman. In the event that the vice chairman is incapable of performing or not performing his duties, a director nominated by more than half of directors shall preside over the meeting. Where the board of directors is incapable of performing or not performing its duties of convening the shareholders' general meeting, the supervisory committee shall convene and preside over such meeting in a timely manner. In case the supervisory committee fails to convene and preside over such meeting, shareholders alone or in aggregate holding more than 10% of the total shares of the company for ninety days consecutively may unilaterally convene and preside over such meeting.

Notice of the shareholders' general meeting shall be given to all shareholders 20 days before the meeting under the PRC Company Law and 45 days under the Special Regulations and the Mandatory Provisions, stating the matters to be considered at the meeting. Under the Special Regulations and the Mandatory Provisions, shareholders wishing to attend are required to give to the company written confirmation of their attendance 20 days prior to the meeting.

Shareholders present at a shareholders' general meeting have one vote for each share they hold, but the company shall have no vote for any of its own shares the company holds.

Resolutions proposed at the shareholders' general meeting shall be adopted by more than half of the voting rights cast by shareholders present (including those represented by proxies) at the meeting, with the exception of matters relating to merger, division, dissolution, increase or reduction in registered capital, change in the form of the company or amendments to the articles of association which shall be adopted by shareholders with two-thirds or more of the voting rights cast by shareholders present (including those represented by proxies) at the meeting.

Shareholders may entrust a proxy to attend shareholders' general meetings on his or her behalf by a power of attorney which sets forth the scope of exercising the voting rights.

There is no specific provision in the PRC Company Law regarding the number of shareholders constituting a quorum in a shareholders' meeting. However, the Special Regulations and the Mandatory Provisions provide that a company's annual general meeting may be convened when replies

to the notice of that meeting from shareholders holding shares representing 50% or more of the voting rights in the company have been received 20 days before the proposed date, or if that 50% level is not achieved, the company shall within five days of the last day for receipt of the replies notify shareholders by public announcement of the matters to be considered at the meeting and the date and place of the meeting and the annual general meeting may be held thereafter. The Mandatory Provisions require class meetings to be held in the event of a variation or derogation of the class rights of a class. Holders of domestic invested shares and holders of overseas listed foreign invested shares are deemed to be different classes of shareholders for this purpose.

Where holders of bearer shares intend to attend a meeting of the shareholders general assembly, they shall deposit their share certificates with the company for a period beginning from five days prior to the convening of the meeting to the end of the meeting.

#### Directors

A company shall have a board of directors, which shall consist of 5 to 19 members and there can be staff representatives of the company. Under the PRC Company Law, each term of office of a director shall not exceed three years. A director may serve consecutive terms if re-elected.

Meetings of the board of directors shall be convened at least twice a year. Notice of meeting shall be given to all directors and supervisors at least ten days before the meeting. The board of directors may provide for a different method of giving notice and notice period for convening an extraordinary meeting of the board of directors.

Under the PRC Company Law, the board of directors exercises the following powers:

- (i) to convene the shareholders' general meeting and report on its work to the shareholders;
- (ii) to implement the resolution of the shareholders' general meeting;
- (iii) to decide on the company's business plans and investment plans;
- (iv) to formulate the company's proposed annual financial budget and final accounts;
- (v) to formulate the company's proposals for profit distribution and for recovery of losses;
- (vi) to formulate proposals for the increase or reduction of the company's registered capital and the issue of corporate bonds;
- (vii) to prepare plans for the merger, division, dissolution or change of the form of the company;
- (viii) to decide on the company's internal management structure;
- (ix) to appoint or dismiss the company's general manager, and based on the president's recommendation, to appoint or dismiss deputy general manager and financial officers of the company and to decide on their remuneration;
- (x) to formulate the company's basic management system; and
- (xi) any other power given under the articles of association of the company.

In addition, the Mandatory Provisions provide that the board of directors is also responsible for formulating the proposals for amendment of the articles of association of a company.

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# SUMMARY OF PRINCIPAL LEGAL AND REGULATORY PROVISIONS

Meetings of the board of directors shall be held only if more than half of the directors are present. Resolutions of the board of directors require the approval of more than half of all directors.

If a director is unable to attend a board meeting, he may appoint another director by a written power of attorney specifying the scope of the authorization to attend the meeting on his behalf.

If a resolution of the board of directors violates the laws, administrative regulations or the company's articles of association as a result of which the company sustains serious losses, the directors participating in the resolution are liable to compensate the company. However, if it can be proven that a director expressly objected to the resolution when the resolution was voted on, and that such objections were recorded in the minutes of the meeting, such director may be relieved of that liability.

Under the PRC Company Law, the following persons may not serve as a director of a company:

- (i) persons without civil capacity or with restricted civil capacity;
- (ii) persons who have committed the offense of corruption, bribery, taking of property, misappropriation of property or destruction of the social economic order, and have been sentenced to criminal punishment, where less than five years have elapsed since the date of completion of the sentence; or persons who have been deprived of their political rights due to criminal offense, where less than five years have elapsed since the date of the completion of implementation;
- (iii) persons who are former directors, factory managers or managers of a company or enterprise which has become bankrupt and been liquidated due to mismanagement and who are personally liable for the bankruptcy of such company or enterprise, where less than three years have elapsed since the date of the completion of the bankruptcy and liquidation of the company or enterprise;
- (iv) persons who were legal representatives of a company or enterprise which had its business license revoked or business operation shut down due to violation of the law and who are personally liable, where less than three years have elapsed since the date of the revocation of the business license;
- (v) persons who have a relatively large amount of debt due and outstanding; or
- (vi) other circumstances under which a person is disqualified from acting as a director of a company are set out in the Mandatory Provisions (which have been incorporated in the Articles of Association, a summary of which is set out in "Appendix V — Summary of the Articles of Association").

The board of directors shall appoint a chairman, who is elected with approval of more than half of all the directors. The chairman of the board of directors exercises, among others, the following powers:

- (i) to preside over shareholders' general meetings and convene and preside over meetings of the board of directors; and
- (ii) to check on the implementation of the resolutions of the board of directors.

The legal representative of a company in accordance with the Mandatory Provisions, is the chairman of the board of directors. The Special Regulations provide that a company's directors, supervisors, managers and other officers bear fiduciary duties and the duty to act diligently. They are

required to faithfully perform their duties, protect the interests of the company and not to use their positions for their own benefit. The Mandatory Provisions (which have been incorporated into the Articles of Association, a summary of which is set out in "Appendix V — Summary of the Articles of Association") contain further elaborations of such duties.

Directors shall be liable for the resolutions adopted by the board of directors. Where a resolution of the board violates laws, administrative regulations, or the company's articles of association, or the resolutions of the shareholders general assembly, and thus causes serious losses to the company, the directors participating in the adoption of such a resolution shall be liable for compensation to the company. However, where a director is proved to have expressed his objection to such a resolution when it was put to the vote and his objection was recorded in the minutes of the meeting, he may be exempted from such liability.

### **Supervisors**

A company shall have a supervisory committee composed of not less than three members. Each term of office of a supervisor is three years and he may serve consecutive terms if re-elected. A supervisor shall continue to perform his duties in accordance with the laws, administrative regulations and articles of association until a re-elected supervisor takes office, if re-election is not conducted in a timely manner upon the expiry of his term of office or if the resignation of supervisor results in the number of supervisors being less than the quorum. The supervisory committee is made up of shareholders representatives and an appropriate proportion of the company's staff representatives; and the percentage of the number of the company's staff representatives shall not be less than one-third. Directors and senior management shall not act as supervisors.

Requirements in relation to the power of the supervisory committee under the PRC Company Law are as follows:

- (i) to examine the company's financial affairs;
- (ii) to supervise the directors and senior management in their performance of their duties and to propose the removal of any director or senior management who violates the laws, regulations, articles of association or shareholders' resolution;
- (iii) to require any director or senior management whose act is detrimental to the company's interests to rectify such act;
- (iv) to propose the convening of extraordinary shareholders' general meetings and, in the event that the board of directors fails to perform the duties of convening and presiding shareholders' meetings to convene and preside over shareholders' meetings;
- (v) to propose any bills to shareholders' general meetings;
- (vi) to commence any action against any directors or senior management; and
- (vii) other powers specified in the company's articles of association.

The circumstances under which a person is disqualified from being a director of a company described above apply mutates mutandis to supervisors of a company.

The Special Regulations provide that a company's directors and supervisors shall have fiduciary duties. They are required to faithfully perform their duties, protect the interest of the company and not to use their positions for their own benefit.

Supervisors may be in attendance at board meetings and make enquiries or proposals in respect of board resolutions. The supervisory committee or (where there is no supervisory committee) the supervisors of a company may initiate investigations into any irregularities identified in the operation of the company and, where necessary, may engage an accountant to assist in their work. Expenses incurred by the supervisory committee to exercise their power shall be borne by the company.

Meetings of the supervisory committee shall be convened at least every six months. Interim meetings of the supervisory committee can be convened by the supervisors. According to the PRC Company Law, resolutions of the supervisory committee require the approval of more than half of all supervisors, and pursuant to the *Letter of Opinions on the Supplementation and Amendment of Articles of Association of Companies Listing in Hong Kong* (關於到香港上市公司對公司章程作補充修改的意見的函) promulgated by the CSRC on April 3, 1995, resolutions of the supervisory committee require the approval of more than two-thirds of all supervisors. Each supervisor shall have one vote for resolutions to be approved by the supervisory committee. Minutes shall be prepared in respect of matters considered at the meeting of the supervisory committee and supervisors attending the meeting shall sign to endorse such minutes.

The board of supervisors shall have one chairman and may have one vice-chairman. Both shall be elected by more than half of all the supervisors. The chairman of the board of supervisors shall convene and preside over the meeting of the board; where the chairman of the board of supervisors cannot perform the functions or fails to do so, the vice-chairman shall convene and preside over the meeting of the board; and where the vice-chairman cannot perform the functions or fails to do so, a supervisor jointly elected by half or more of the supervisors shall convene and preside over the meeting of the board.

### Managers and other Senior Officers

The "senior manager" refers to the manager, vice manager, person in charge of finance of a company, and the secretary of the board of directors of a listed company as well as any other person as stimulated in the articles of association.

A company shall have a manager who shall be appointed or removed by the board of directors. The manager is accountable to the board of directors and may exercise the following powers:

- (i) in charge of the production, operation and management of the company and arrange for the implementation of resolutions of the board of directors;
- (ii) arrange for the implementation of the company's annual business and investment plans;
- (iii) formulate plans for the establishment of the company's internal management structure;
- (iv) formulate the basic administration system of the company;
- (v) formulate the company's internal rules;
- (vi) recommend the appointment and dismissal of deputy managers and any financial officer and appoint or dismiss other senior administration officers (other than those required to be appointed or dismissed by the board of directors);
- (vii) attend board meetings as a non-voting attendant; and
- (viii) other powers conferred by the board of directors or the company's articles of association.

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The Special Regulations and the Mandatory Provisions provide that the other senior management officers of a company includes the financial officer, secretary of the board of directors and other executives as specified in the articles of association of the company.

The circumstances under which a person is disqualified from being a director of a company also apply to managers and officers of the company.

The articles of association of a company shall have binding effect on the shareholders, directors, supervisors, managers and other senior management of the company. Such persons shall be entitled to exercise their rights, apply for arbitration and issue legal proceedings according to the articles of association of the company. The provisions of the Mandatory Provisions regarding the senior management of a company have been incorporated in the Articles of Association, a summary of which is set out in "Appendix V — Summary of the Articles of Association".

### Duties of Directors, Supervisors and Senior Officers

None of the following persons shall serve as a director, supervisor, or senior manager of a company:

- (i) a person who has no or limited capacity for civil conduct;
- (ii) a person who was sentenced to criminal punishment for embezzlement, bribery, seizure of property or misappropriation of property or for sabotage of the socialist market economic order, where less than five years have elapsed after the expiration of the period of execution; or a person who was deprived of his political rights for the commission of a crime, where less than five years have elapsed after the expiration of the period of execution;
- (iii) a person who, being a director or the head or manager of a company or enterprise that went into bankruptcy and liquidation, was personally liable for the bankruptcy of the said company or enterprise, where less than three years have elapsed from the date liquidation of the company or enterprise is completed;
- (iv) a person who, being the legal representative of a company or an enterprise, the business license of which was revoked for violation of law and which was ordered to close down, was personally liable for the above, where less than three years have elapsed from the date the business license of the company or enterprise is revoked; or
- (v) a person who fails to liquidate a relatively large amount of personal debts when they are due.

A director, supervisor and senior officer of a company are required under the PRC Company Law to comply with the relevant laws, regulations and the company's articles of association, carry out their duties honestly and protect the interests of the company. They are also prohibited from abusing their powers to accept bribes or other unlawful income and from misappropriating the company's properties. Directors and senior management are prohibited from:

- (i) misappropriation of company funds;
- (ii) deposit of company funds into accounts under their own name or the name of other individuals;

- (iii) loaning company funds to others or providing guarantees in favor of others supported by the company properties in violation of the articles of association or without prior approval of the shareholders' general meeting or board of directors;
- (iv) entering into contracts or deals with the company in violation of the articles of association or without prior approval of the shareholders' general meeting or board of directors:
- (v) using their position to procure business opportunities for themselves or others that should have otherwise been available to the company or operating for their own benefit or managing on behalf of other businesses similar to that of the company without prior approval of the shareholders' general meeting;
- (vi) accepting for their own benefit commissions from other parties dealing with the company;
- (vii) unauthorized divulgence of confidential information of the company; or
- (viii) other acts in violation of their duty of loyalty to the company.

A director, supervisor and senior officer of a company is also under a duty of confidentiality to the company.

A director, supervisor and senior officer who contravenes any law, regulation or the company's articles of association in the performance of his duties which results in any loss to our company shall be personally liable to the company.

The Special Regulations and the Mandatory Provisions provide that a director, supervisor and senior officer of a company owe fiduciary duties to the company and are required to perform their duties faithfully and to protect the interests of the company and not to make use of their positions in the company for their own benefit.

Where the attendance of a director, supervisor, or senior officer is requested by the shareholders' general meeting, such director, supervisor, or other senior officer shall attend the meeting as requested and answer enquiries of shareholders. Directors and senior officers shall furnish with all truthfulness facts and information to the supervisory committee without obstructing the discharge of duties by the supervisory committee.

A company shall not directly, or through its affiliate, provide loans to any director, supervisor or senior management and shall regularly disclose to the shareholders any information regarding remunerations received by the directors, supervisors or senior management of the company.

### Finance and Accounting

A company shall establish its financial and accounting systems according to laws, administrative regulations and the provisions of the responsible financial department of the State Council and at the end of each financial year, prepare a financial report which shall be audited and verified as provided by law.

A company shall deposit its financial statements at the company for inspection by the shareholders at least 20 days before the convening of the annual general meeting of shareholders. A company incorporated by public subscription must publish its financial statements.

The common reserve of a company comprises the statutory surplus reserve, the discretionary common reserve and the capital common reserve.

When distributing each year's after-tax profits, the company shall set aside 10% of its after-tax profits for the company's statutory surplus reserve (except where the reserve has reached 50% of the company's registered capital). After a company has made an allocation to its statutory common reserve from its after-tax profits, subject to a resolution of the shareholders' general meeting, the company may make an allocation to a discretionary common reserve.

When the company's statutory surplus reserve is not sufficient to make up for the company's losses of the previous years, current year profits shall be used to make up for the losses before allocations are set aside for the statutory surplus reserve.

After the company has made up for its losses and make allocations to its statutory surplus reserve the remaining profits could be available for distribution to shareholder in proportion to the number of shares held by the shareholders except as otherwise provided in the articles of association of such company limited by shares.

The capital common reserve of a company is made up of the premium over the nominal value of the shares of the company on issue and other amounts required by the relevant governmental authority to be treated as the capital common reserve.

The common reserve of a company shall be applied for the following purposes:

- (i) to make up the company's losses other than the capital common reserve;
- (ii) to expand the business operations of the company; and
- (iii) to increase the registered capital of the company by the issue of new shares to shareholders in proportion to their existing shareholdings in the company or by increasing the nominal value of the shares currently held by the shareholders. If the statutory surplus reserve is converted into registered capital, the balance of the statutory surplus reserve after such conversion shall not be less than 25% of the registered capital of the company before such conversion.

The company shall have no other accounting books except the statutory accounting books. The company's assets shall not be deposited in any accounts opened in the name of an individual.

#### Appointment and Retirement of Auditors

The Special Regulations require a company to employ an independent PRC qualified accounting firm to audit the company's annual report and to review and check other financial reports.

The auditors are to be appointed for a term commencing from the close of an annual general meeting and ending at the close of the next following annual general meeting.

Appointment or dismissal of auditors in charge of the auditing business of a company shall be subject to decision by the shareholders assembly, the shareholders general assembly or the board of directors in accordance with the provisions of the company's articles of association. Where the

shareholders assembly, the shareholders general assembly or the board of directors of a company votes on the dismissal of an accounting firm, it shall allow the accountants to state their opinions. A company shall provide authentic and complete accounting vouchers, accounting books, financial and accounting reports and other accounting data to the accountants it appoints, and shall not refuse to do so, or conceal the facts or make false reports about them. The period of appointment of the accountants starts from the date when the first annual shareholders meeting ends to the date when the next annual shareholders meeting ends.

If a company removes or ceases to continue to appoint the auditors, it is required by the Special Regulations to give prior notice to the auditors and the auditors are entitled to make representations before the shareholders in general meeting. The appointment, removal or non re-appointment of auditors shall be decided by the shareholders at shareholders' general meetings and shall be filed with the CSRC for record.

A company shall not have any other accounting books in addition to the statutory accounting books. No accounts shall be opened in the name of any individual for deposit of the assets of a company.

## Distribution of Profits

The PRC Company Law provides that a company is restricted from distributing profits before accumulated losses have been made up and statutory common reserve has been drawn. The Special Regulations provide that the dividends and other distributions to be paid to holders of overseas listed foreign invested shares shall be declared and calculated in Renminbi and paid in foreign currency. Under the Mandatory Provisions, the payment of foreign currency to shareholders shall be made through a receiving agent.

## Amendments to Articles of Association

Any amendments to the company's articles of association must be made in accordance with the procedures set forth in the company's articles of association. Any amendment of provisions incorporated in the articles of association in connection with the Mandatory Provisions will only be effective after approval by the companies approval department authorized by the State Council and the CSRC. In relation to matters involving the company's registration, its registration with the authority must also be changed.

### Dissolution and Liquidation

Under the PRC Company Law, a company shall be dissolved in any of the following events:

- (i) the term of its operations set down in its articles of association has expired or events of dissolution specified in its articles of association have occurred;
- (ii) the shareholders in general meeting have resolved to dissolve the company;
- (iii) the company is dissolved by reason of its merger or demerger;
- (iv) the company is subject to the revocation of business license, a closure order or elimination in accordance with laws; or

(v) in the event that the company encounters substantial difficulties in its operation and management and its continuance shall cause a significant loss, in the interest of shareholders, and where this cannot be resolved through other means, shareholders who hold more than 10% of the total shareholders' voting rights of the company may present a petition to the people's court for the dissolution of the company.

Where the company is dissolved in the circumstances described in (i), (ii), (iv) and (v) above, a liquidation committee must be formed within 15 days after the occurrence of the cause of dissolution so as to carry out liquidation. Members of the liquidation committee shall be composed of the directors or people as determined by the shareholders' meeting.

If a liquidation committee is not established within the stipulated period, the company's creditors can apply to the people's court for its establishment.

The liquidation committee shall notify the company's creditors within ten days after its establishment, and issue a public notice in the newspapers within 60 days. A creditor shall lodge his claim with the liquidation committee within 30 days after receiving notification, or within 45 days of the public notice if he did not receive any notification. The liquidation committee shall exercise the following powers during the liquidation period:

- (i) to handle the company's assets and to prepare a balance sheet and an inventory of the assets:
- (ii) to notify creditors or issue public notices;
- (iii) to deal with and settle any outstanding business of relevant company;
- (iv) to pay any tax overdue;
- (v) to settle the company's claims and liabilities;
- (vi) to handle the surplus assets of the company after its debts have been paid off; and
- (vii) to represent the company in civil lawsuits.

If the company's assets are sufficient to meet its liabilities, they shall be applied towards the payment of the liquidation expenses, wages owed to the employees and labor insurance expenses, tax overdue and debts of the company. Any surplus assets shall be distributed to the shareholders of the company in proportion to the number of shares held by them.

During the liquidation period, a company shall not engage in operating activities unrelated to the liquidation.

If the liquidation committee becomes aware that the company does not have sufficient assets to meet its liabilities, it must immediately apply to the people's court for a declaration for bankruptcy according to the laws. Following such declaration, the liquidation committee shall hand over all affairs of the liquidation to the people's court.

Upon completion of the liquidation, the liquidation committee shall submit a liquidation report to the shareholders' general meeting or the people's court for confirmation. Thereafter, the report shall be submitted to the company registration authority in order to cancel the company's registration, and a public notice of its termination shall be issued.

Members of the liquidation committee are required to discharge their duties honestly and in compliance with relevant laws. A member of liquidation committee is liable to indemnify the company and its creditors in respect of any loss arising from his willful or material default.

## Loss of Share Certificates

A shareholder may apply, in accordance with the relevant provisions set out in the PRC Civil Procedure Law, to a people's court in the event that share certificates in registered form are either stolen or lost, for a declaration that such certificates will no longer be valid. After such a declaration has been obtained, the shareholder may apply to the company for the issue of replacement certificates.

The Mandatory Provisions provide for a separate procedure regarding loss of H share certificates (which has been incorporated in the Articles of Association, a summary of which is set out in "Appendix V — Summary of the Articles of Association").

## Merger and Demerger

Companies may merge through merger by absorption or through the establishment of a newly merged entity. If it merges by absorption, the company which is absorbed shall be dissolved. If it merges by forming a new corporation, both companies will be dissolved.

As for a corporate merger, both parties to the merger shall conclude an agreement with each other and formulate balance sheets and checklists of properties. The companies involved shall, within ten days as of making the decision of merger, notify the creditors, and shall make a public announcement in a newspaper within thirty days. The creditors may, within thirty days as of the receipt of the notice or within forty five days as of the issuance of the public announcement if it fails to receive a notice, require the company to clear off its debts or to provide corresponding guarantees. In the case of a merger, the credits and debts of the companies involved shall be succeeded by the company that survives the merger or by the newly established company.

As for the division of a company, the properties thereof shall be divided accordingly, and balance sheets and checklists of properties shall be worked out. The company shall, within ten days as of the day when the decision of division is made, notify the creditors and make a public announcement in a newspaper within thirty days. The post-division companies shall bear joint liabilities for the debts of the former company before it is divided, unless it is otherwise prescribed by the company and the creditors before the division with regard to the clearance of debts in written agreement.

## SECURITIES LAW AND REGULATIONS

The PRC has promulgated a number of regulations that relate to the issue and trading of the Shares and disclosure of information. In October 1992, the State Council established the Securities Committee and the CSRC. The Securities Committee was responsible for coordinating the drafting of securities regulations, formulating securities-related policies, planning the development of securities markets, directing, coordinating and supervising all securities related institutions in the PRC and administering the CSRC. The CSRC was the regulatory body of the Securities Committee and responsible for the drafting of regulatory provisions of securities markets, supervising securities firms, regulating public offers of securities by PRC companies in the PRC or overseas, regulating the trading of securities, compiling securities-related statistics and undertaking research and analysis. In 1998, the

State Council dissolved the Securities Committee of the State Council and assigned its function to the CSRC. The CSRC is also responsible for the regulation and supervision of the national stocks and futures market according to laws, regulations and authorizations.

The Securities Law took effect on July 1, 1999 and was last amended on August 31, 2014. This is the first securities law in the PRC, and it is divided into 12 chapters and 240 articles regulating, among other things, the issue and trading of securities, takeovers by listed companies, securities exchanges, securities firms and the duties and responsibilities of the State Council's securities regulatory authorities. The Securities Law comprehensively regulates activities in the PRC securities market. Article 238 of the Securities Law provides that a PRC company must obtain prior approval from the State Council's regulatory authorities to list its shares oversea. Article 239 of the Securities Law provides that specific provisions in respect of shares of companies in the PRC which are to be subscribed and traded in foreign currencies shall be separately formulated by the State Council. Currently, the issue and trading of foreign issued shares (including H Shares) are still governed by the rules and regulations promulgated by the State Council and the CSRC.

### **Overseas Listing**

The shares of a company shall only be listed overseas after obtaining approval from the securities regulatory authority of the State Council and the listing must be arranged in accordance with procedures specified by the State Council.

According to the Special Regulations, a company's plan to issue overseas listed foreign invested shares and domestic invested shares which has been approved by the securities regulatory authority of the State Council may be implemented by the board of directors of a company by way of separate issues, within fifteen months after approval is obtained from the CSRC.

### Suspension and Termination of Listing

All provisions on the suspension and termination of listing were deleted from the PRC Company Law. The following revisions were made in the Securities Law:

Where a listed company is in any of the following circumstances, the stock exchange shall decide to suspend the listing of its stocks:

- (i) Where the total amount of capital stock or share distribution of the company changes and thus, fails to meet the requirements of listing;
- (ii) Where the company fails to publicize its financial status according to the relevant provisions or has any false record in its financial statements, which may mislead the investors;
- (iii) Where the company has in dissolution or has been declared insolvent;
- (iv) Where the company has been operating at a loss for the latest 3 consecutive year; or
- (v) Under any other circumstance as prescribed in the listing rules of the stock exchange.

According to the Securities Law, under the above (i) circumstances, and the company fails again to meet the requirements of listing within the period as prescribed by the stock exchange; and under the above (ii) circumstances, and the company refuses to make any correction; as well as under

the above (iv) circumstances, and the company fails to gain profits in the year thereafter; the stock exchange shall decide to terminate the listing of its stocks.

#### ARBITRATION AND ENFORCEMENT OF ARBITRAL AWARDS

The Arbitration Law of the PRC (中華人民共和國仲裁法) (the "Arbitration Law") was passed by the Standing Committee of the National People's Congress on August 31, 1994 and the latest version was amended on August 27, 2009 with immediate effect. It is applicable to contract disputes and other property disputes between natural persons, legal persons and other organizations where the parties have entered into a written agreement to refer the matter to arbitration before an arbitration committee constituted in accordance with the Arbitration Law. Under the Arbitration Law, an arbitration committee may, before the promulgation by the PRC Arbitration Association of arbitration regulations, formulate provisional arbitration rules in accordance with the Arbitration Law and the PRC Civil Procedure Law. Where the parties have by agreement provided arbitration as the method for dispute resolution, the people's court will refuse to handle the case.

The Hong Kong Listing Rules and the Mandatory Provisions require an arbitration clause to be included in the Articles of Association and, in the case of the Hong Kong Listing Rules, also in contracts with each of the Directors and Supervisors, to the effect that whenever any disputes or claims arise between holders of the H Shares and us; holders of the H Shares and the Directors, Supervisors or officers; or holders of the Shares, in respect of any disputes or claims in relation to our affairs or as a result of any rights or obligations arising under the Articles of Association, the PRC Company Law or other relevant laws and administrative regulations, such disputes or claims shall be referred to arbitration.

Where a dispute or claim of rights referred to in the preceding paragraph is referred to arbitration, the entire claim or dispute must be referred to arbitration, and all persons who have a cause of action based on the same facts giving rise to the dispute or claim or whose participation is necessary for the resolution of such dispute or claim, if they are shareholders, Directors, Supervisors, officers of us, shall be subject to the arbitration. Disputes in respect of who is the shareholder and those in relation to our register of shareholders need not be resolved by arbitration.

A claimant may elect for arbitration to be carried out at either the China International Economic and Trade Arbitration Commission ("CIETAC") in accordance with its rules or the Hong Kong International Arbitration Center ("HKIAC") in accordance with its securities arbitration rules. Once a claimant refers a dispute or claim to arbitration, the other party must submit to the arbitral body elected by the claimant. If the claimant elects for arbitration to be carried out at the HKIAC, any party to the dispute or claim may apply for a hearing to take place in Shenzhen in accordance with the securities arbitration rules of the HKIAC.

Under the Arbitration Law and the PRC Civil Procedure Law, an arbitral award is final and binding on the parties. If a party fails to comply with an award, the other party to the award may apply to the people's court for Enforcement. A people's court may refuse to enforce an arbitral award made by an arbitration tribunal if there is any procedural or membership irregularity specified by law or the award exceeds the scope of the arbitration agreement or is outside the jurisdiction of the arbitration tribunal.

A party seeking to enforce an arbitral award of PRC arbitration panel against a party who, or whose property, is not within the PRC, may apply to a foreign court with jurisdiction over the case for

enforcement. Similarly, an arbitral award made by a foreign arbitration body may be recognized and enforced by the PRC courts in accordance with the principles of reciprocity or any international treaty concluded or acceded to by the PRC. The PRC acceded to the *Convention on the Recognition and Enforcement of Foreign Arbitral Awards* (承認及執行外國仲裁裁决公約) (the "New York Convention") adopted on June 10, 1958 pursuant to a resolution of the Standing Committee of the National People's Congress passed on December 2, 1986. The New York Convention provides that all arbitral awards made in a state which is a party to the New York Convention shall be recognized and enforced by other parties to the New York Convention, subject to their right to refuse enforcement under certain circumstances, including where the enforcement of the arbitral award is against the public policy of the State to which the application for enforcement is made. It was declared by the Standing Committee of the National People's Congress simultaneously with the accession of the PRC that (i) the PRC will only apply the New York Convention in disputes considered under PRC laws to arise from contractual and non-contractual mercantile legal relations.

In June 1999, an arrangement was made between Hong Kong and the Supreme People's Court of the PRC for the mutual enforcement of arbitral awards. This new arrangement was approved by the Supreme People's Court of the PRC and the Hong Kong Legislative Council, and became effective on February 1, 2000. The arrangement is made in accordance with the spirit of the New York Convention. Under the arrangement, awards made by PRC arbitration bodies pursuant to the Arbitration Law can be enforced in Hong Kong. Hong Kong arbitral awards pursuant to the Arbitration Ordinance of Hong Kong are also enforceable in the PRC.

### ESTABLISHMENT OF OVERSEAS OPERATIONS RULES AND REGULATIONS

According to the *Provisions for Overseas Investment Management* (境外投資管理辦法) promulgated by the Ministry of Commerce and took effect on October 6, 2014, and the *Provisions on the Foreign Exchange Administration of Overseas Investment of Domestic Institutions* (境内機構境外直接投資外匯管理規定) issued by the SAFE and took effect on August 1, 2009, upon obtaining approval from the Ministry of Commerce to establish enterprises overseas, PRC enterprises shall apply for foreign exchange registration for overseas investments.

According to the *Tentative Administrative Provisions on the Approval of Overseas Investment Projects* (境外投資項目核准和備案管理辦法) promulgated by the NDRC and took effect on May 8, 2014, overseas investment projects carried out by PRC enterprises by way of new construction, M&A, share purchase, capital increase and capital injection, and overseas investment projects implemented through its overseas enterprise or entity by way of providing financing or guarantees, are required to obtain approval or lodge filing with NDRC in accordance with the relevant conditions of the overseas investment projects.

# MATERIAL DIFFERENCES BETWEEN CERTAIN ASPECTS OF CORPORATION LAW IN THE PRC AND HONG KONG

Hong Kong company law is primarily set out in the Companies Ordinance and the Companies (Winding Up and Miscellaneous Provisions) Ordinance, supplemented by common law and rules of equity that apply to Hong Kong. As a joint stock limited company incorporated in the PRC that is seeking a listing of shares on the Hong Kong Stock Exchange, we are governed by the PRC Company

Law and all other rules and regulations promulgated pursuant to the PRC Company Law. Set out below is a summary of certain material differences between Hong Kong company law and the PRC Company Law. This summary is, however, not intended to be an exhaustive comparison.

### **Corporate Existence**

Under Hong Kong company law, a company with share capital is incorporated by the Registrar of Companies in Hong Kong, which issues a certificate of incorporation to the Company upon its incorporation, and the company will acquire an independent corporate existence henceforth. A company may be incorporated as a public company or a private company. Pursuant to the Companies Ordinance, the articles of association of a private company incorporated in Hong Kong shall contain certain pre-emptive provisions. A public company's articles of association do not contain such pre-emptive provisions.

Under the PRC Company Law, a joint stock limited company may be incorporated by promotion or public subscription.

## **Share Capital**

Under Hong Kong law, the directors of a Hong Kong company may, with the prior approval of the shareholders if required, issue new shares of the company. The PRC Company Law does not provide for authorized share capital. The Company's registered capital is the amount of its issued share capital. Any increase in the Company's registered capital must be approved by our Shareholders' general meeting and shall be approved by/filed with the relevant PRC governmental and regulatory authorities (if applicable).

Under the Securities Law, a company which is authorized by the relevant securities regulatory authority to list its shares on a stock exchange must have a total share capital of not less than RMB30 million. The Companies Ordinance does not prescribe any minimum capital requirement for companies incorporated in Hong Kong.

Under the PRC Company Law, the shares may be subscribed for in the form of money or non-monetary assets (other than assets not entitled to be used as capital contributions under relevant laws or administrative regulations). For non-monetary assets to be used as capital contributions, appraisals must be carried out to ensure there is no over-valuation or under-valuation of the assets. There is no such restriction on a company incorporated in Hong Kong.

## Restrictions on Shareholding and Transfer of Shares

Generally, A Shares of the Company, which are denominated and subscribed for in Renminbi, can be subscribed for and traded by PRC investors, qualified overseas institutional investors or qualified overseas strategic investors, while also being eligible securities under the Northbound Trading Link, A Shares of the Company can be subscribed for and traded by Hong Kong and other overseas investors in accordance with the rules and limits of Shanghai-Hong Kong Stock Connect. Overseas listed shares, which are denominated in Renminbi and subscribed for in a currency other than Renminbi, may only be subscribed for, and traded by, investors from Hong Kong, Macau and Taiwan or any country and territory outside the PRC, or qualified domestic institutional investors. If the H shares are eligible securities under the Southbound Trading Link, they are also subscribed for and

traded by PRC investors in accordance with the rules and limits of Shanghai-Hong Kong Stock Connect or Shenzhen-Hong Kong Stock Connect.

Under the PRC Company Law, a promoter of a joint stock limited company is not allowed to transfer the shares it holds for a period of one year after the date of establishment of the company. Shares in issue prior to a public offering of the company cannot be transferred within one year from the listing date of the shares on a stock exchange. Shares in a joint stock limited liability company held by its directors, supervisors and senior management and transferred each year during their term of office shall not exceed 25% of the total shares they held in a company, and the shares they held in a company cannot be transferred within one year from the listing date of the shares, and also cannot be transferred within half a year after the said personnel has left office. The articles of association may set other restrictive requirements on the transfer of a company's shares held by its directors, supervisors and senior management. There are no restrictions on shareholdings and transfers of shares under Hong Kong law apart from (i) the restriction on the Company to issue additional Shares within six months, and (ii) 12-month lockup on Controlling Shareholders' disposal of Shares, after the Global Offering.

## Financial Assistance for Acquisition of Shares

The PRC Company Law does not prohibit or restrict a joint stock limited company or its subsidiaries from providing financial assistance for the purpose of an acquisition of its own or its holding company's shares. However, the Mandatory Provisions contain certain restrictions on a company and its subsidiaries on providing such financial assistance similar to those under Hong Kong company law.

#### Notice of Shareholders' Meetings

Under the PRC Company Law, notice of a shareholder's annual general meeting must be given not less than 20 days before the meeting. Whereas notice of an extraordinary general meeting must be given not less than 15 days before the meeting. If a company issues bearer shares, notice of a shareholder's general meeting must be given at least 30 days prior to the meeting. Under the Special Regulations and the Mandatory Provisions, at least 45 days' written notice must be given to all shareholders in advance, and any shareholder who wishes to attend the meeting must reply in writing at least 20 days before the date of the meeting.

For a company incorporated in Hong Kong with limited liability, the minimum period of notice of a general meeting is 14 days. Further, where a meeting involves consideration of a resolution requiring special notice, the company must also give its shareholders notice of the resolution at least 14 days before the meeting. The notice period for the annual shareholders' general meeting is 21 days.

## **Quorum for Shareholders' Meetings**

The PRC Company Law does not specify any quorum requirement for a shareholders' general meeting, but the Special Regulations and the Mandatory Provisions provide that general meetings may only be convened when replies to the notice of that meeting have been received from shareholders whose shares represent at least 50% of the voting rights at least 20 days before the proposed date of the meeting, or if that 50% level is not achieved, the company shall within five days notify its shareholders again by way of a public announcement and the shareholders' general meeting may be held thereafter. Under Hong Kong law, the quorum for a shareholders' meeting is two members, unless the articles of

association of a company specifies otherwise or the company has only one member, in which case the quorum is one.

## Voting at Shareholders' Meetings

Under the PRC Company Law, the passing of any resolution requires more than one-half of the affirmative votes held by our shareholders present in person or by proxy at a shareholders' meeting except in cases such as proposed amendments to our Articles of Association, increase or decrease of registered capital, merger, division, dissolution or transformation, which require two-thirds of the affirmative votes cast by shareholders present in person or by proxy at a shareholders' general meeting.

Under Hong Kong law, an ordinary resolution is passed by a simple majority of affirmative votes cast by shareholders present in person, or by proxy, at a general meeting, and a special resolution is passed by not less than three-fourths of affirmative votes casted by shareholders present in person, or by proxy, at a general meeting.

## Variation of Class Rights

The PRC Company Law makes no specific provision relating to variation of class rights. However, the PRC Company Law states that the State Council can promulgate requirements relating to other kinds of shares. The Mandatory Provisions contain detailed provisions relating to the circumstances which are deemed to be variations of class rights and the approval procedures required to be followed in respect thereof. These provisions have been incorporated in the Articles of Association, which are summarized in Appendix V — Summary of Articles of Association.

Under the Companies Ordinance, no rights attached to any class of shares can be varied except (i) with the passing of a special resolution by the shareholders of the relevant class at a separate meeting sanctioning the variation, (ii) with the written consent of shareholders representing at least three-fourths of the total voting rights of shareholders of the relevant class, or (iii) if there are provisions in the articles of association relating to the variation of those rights, then in accordance with those provisions.

As required by the Hong Kong Listing Rules and the Mandatory Provisions, we have adopted in the Articles of Association provisions protecting class rights in a similar manner to those found in Hong Kong law. Holders of overseas listed shares and domestic listed shares are defined in the Articles of Association as different classes. The special procedures for voting by a class of Shareholders shall not apply in the following circumstances: (i) where we issue, either separately or concurrently in any 12-month period, upon approval by special resolutions passed at a general meeting, A shares and H shares not more than 20% of each of the existing A shares and H shares, respectively; (ii) where the plan for the issue of A shares and H shares upon our establishment is implemented within 15 months following the date of approval by the securities regulatory authorities under the State Council or within the stated period as stipulated by applicable requirements, and (iii) where the Company issues and lists its H shares overseas, upon receiving the approval of the State Council or the securities regulatory authorities under the State Council, our shareholders may liquidate the unlisted shares they hold for dealing in overseas.

### **Derivative Action By Minority Shareholders**

Under Hong Kong company law, a shareholder may, with the leave of the Court, start a derivative action on behalf of a company for any misconduct committed by its directors against the company. For example, leave may be granted where the directors control a majority of votes at a general meeting, and could thereby prevent the company from suing the directors in its own name.

Pursuant to the PRC Company Law, in the event where the directors and senior management of a joint stock limited company violate laws, administrative regulations or its articles of association, resulting in losses to the company, the shareholders individually or jointly holding over 1% of the shares in the company for more than 180 consecutive days may request in writing the board of supervisors to initiate proceedings in the people's court. In the event that the board of supervisors violates as such, the above said shareholders may send written request to the board of directors to initiate proceedings in the people's court. Upon receipt of such written request from the shareholders, if the board of supervisors or the board of directors refuses to initiate such proceedings, or has not initiated proceedings within 30 days upon receipt of the request, or if under urgent situations, failure of initiating immediate proceeding may cause irremediable damages to the company, the above said shareholders shall, for the benefit of the company's interests, have the right to initiate proceedings directly to the court in their own name.

In addition, the Mandatory Provisions provide us with certain remedies against the Directors, Supervisors and senior management who breach their duties to the Company. In addition, as a condition to the listing of overseas listed foreign Shares on the Hong Kong Stock Exchange, each director and supervisor of a joint stock limited company is required to give an undertaking to observe the articles of association in favor of the company. This allows minority Shareholders to take action against our Directors and Supervisors in default.

## **Minority Shareholder Protection**

Under the Companies Ordinance, a shareholder who alleges that the affairs of a company are conducted in a manner unfairly prejudicial to his interests may petition to the Court to make an appropriate order to give relief to the unfairly prejudicial conduct. Alternatively, pursuant to the Companies (Winding Up and Miscellaneous Provisions) Ordinance, a shareholder may seek to wind up the company on the just and equitable ground. In addition, on the application of a specified number of members, the Financial Secretary may appoint inspectors who are given extensive statutory powers to investigate the affairs of a company incorporated or registered in Hong Kong. The PRC Company Law provides that any shareholders holding 10% or above of voting rights of all issued shares of a company may request a People's Court to dissolve the company to the extent that the operation or management of the company experiences any serious difficulties and its continuous existence would cause serious losses to them, and no other alternatives can resolve such difficulties.

The Company, as required by the Mandatory Provisions, has adopted in its Articles of Association minority Shareholder protection provisions similar to (though not as comprehensive as) those available under the Hong Kong law. These provisions state that a controlling shareholder may not exercise its voting rights in a manner prejudicial to the interests of other shareholders, may not relieve a director or supervisor of his duty to act honestly in our best interests or may not approve the expropriation by a director or supervisor of our assets or the individual rights of other shareholders.

#### **Directors**

The PRC Company Law, unlike Hong Kong company law, does not contain any requirements relating to the declaration of directors' interests in material contracts, restrictions on directors' authority in making major dispositions, restrictions on companies providing certain benefits to directors and indemnification in respect of directors' liability and prohibitions against compensation for loss of office without shareholders' approval. The Mandatory Provisions, however, contain certain requirements and restrictions on major disposals and specify the circumstances under which a director may receive compensation for loss of office.

## **Board of Supervisors**

Under the PRC Company Law, a joint stock limited company's directors and senior management are subject to the supervision of a board of supervisors. There is no mandatory requirement for the establishment of a board of supervisors for a company incorporated in Hong Kong. The Mandatory Provisions provide that each supervisor owes a duty, in the exercise of his powers, to act in good faith and honestly in what he considers to be in the best interests of the Company and to exercise the care, diligence and skill that a reasonably prudent person would exercise in comparable circumstances.

#### **Fiduciary Duties**

In Hong Kong, directors owe fiduciary duties to the company, including the duty not to act in conflict with the company's interests. Furthermore, the Companies Ordinance has codified the directors' statutory duty of care. Under the Special Regulations, directors, supervisors, managers and other members of senior management of the company shall honestly and diligently perform their duties for the company.

## **Financial Disclosure**

Under the PRC Company Law, a joint stock limited company is required to make available at the company for inspection by shareholders its financial report 20 days before its annual general meeting. In addition, a joint stock limited company of which the shares are publicly offered must publish its financial report. The Companies Ordinance requires a company incorporated in Hong Kong to send to every shareholder a copy of its financial statements, auditors' report and directors' report, which are to be presented before the company in its annual general meeting, not less than 21 days before such meeting. According to the PRC laws, a company shall prepare its financial accounting reports as at the end of each accounting year, and submit the same to accounting firms for auditing as required by law. The Mandatory Provisions require that a company must, in addition to preparing financial statements according to the CAS, have its financial statements prepared and audited in accordance with international or Hong Kong accounting standards and its financial statements must also contain a statement of the financial effect of the material differences (if any) from the financial statements prepared in accordance with the CAS.

The Special Regulations require that there should not be any inconsistency between the information disclosed within and outside the PRC and that, to the extent that there are differences in the information disclosed in accordance with the relevant PRC and overseas laws, regulations and requirements of the relevant stock exchanges, such differences should also be disclosed simultaneously.

#### **Information on Directors and Shareholders**

The PRC Company Law gives shareholders the right to inspect the company's articles of association, minutes of the general meetings and financial and accounting reports. Under the articles of association, shareholders have the right to inspect and copy (at reasonable charges) certain information on shareholders and on directors which is similar to the rights of shareholders of Hong Kong companies under the Companies Ordinance.

## **Receiving Agent**

Under the Hong Kong law, dividends once declared by the board of directors will become debts payable to shareholders. The limitation period for debt recovery action under Hong Kong law is six years, while under the PRC law this limitation period is two years. The Mandatory Provisions require that the relevant company shall appoint a receiving agent for shareholders who hold overseas listed foreign shares, and the receiving agent shall receive on behalf of such holders of shares dividends declared and other monies owed by the company in respect of its overseas listed foreign shares.

### **Corporate Reorganization**

Corporate reorganization involving a company incorporated in Hong Kong may be effected in a number of ways, such as a transfer of the whole or part of the business or property of the company in the course of voluntary winding up to another company pursuant to Section 237 of the Companies (Winding Up and Miscellaneous Provisions) Ordinance or a compromise or arrangement between the company and its creditors or between the company and its members pursuant to Section 673 and Division 2 of Part 13 of the Companies Ordinance, which requires the sanction of the court. In addition, subject to the shareholders' approval, an intra-group wholly-owned subsidiary company may also be amalgamated horizontally or vertically under the Companies Ordinance. Under PRC law, merger, division, dissolution or change to the status of a joint stock limited liability company has to be approved by shareholders in general meeting.

#### **Mandatory Transfers**

Under the PRC Company Law, a joint stock limited liability company is required to make transfers equivalent to certain prescribed percentages of its after-tax profit to the statutory common reserve fund. There are no corresponding provisions under Hong Kong law.

## **Arbitration of Disputes**

In Hong Kong, disputes between shareholders and a company or its directors, managers and other senior management may be resolved through the courts. The Mandatory Provisions provides that disputes between a holder of H shares and the Company, a holder of H shares and directors, supervisors, managers and other members of senior management of the Company or a holder of H shares and a holder of domestic listed shares, arising from the Articles of Association, the PRC Company Law or other relevant laws and administrative regulations which concerns the affairs of the Company should, with certain exceptions, be referred to arbitration at either the HKIAC or the China International Economic and Trade Arbitration Commission. Such arbitration is final and conclusive.

The Securities Arbitration Rules of the HKIAC contain provisions allowing, upon application by any party, an arbitral tribunal to conduct a hearing in Shenzhen for cases involving the affairs of

companies incorporated in the PRC and listed on the Hong Kong Stock Exchange so that PRC parties and witnesses may attend. Where any party applies for a hearing to take place in Shenzhen, the tribunal shall, where satisfied that such application is based on bona fide grounds, order the hearing to take place in Shenzhen conditional upon all parties, including witnesses and arbitrators, being permitted to enter Shenzhen for the purpose of the hearing. Where a party, other than a PRC party or any of its witnesses or any arbitrator, is not permitted to enter Shenzhen, then the tribunal shall order that the hearing be conducted in any practicable manner, including the use of electronic media. For the purpose of the Securities Arbitration Rules of the HKIAC, a PRC party means a party domiciled in the PRC other than the territories of Hong Kong, Macau and Taiwan.

## Remedies of a Company

Under the PRC Company Law, if a director, supervisor or manager in carrying out his duties infringes any law, administrative regulation or the articles of association of a company, which results in damage to the company, that director, supervisor or manager should be responsible to the company for such damages. In addition, the Hong Kong Listing Rules require listed companies' articles to provide for remedies of the company similar to those available under Hong Kong law (including rescission of the relevant contract and recovery of profits from a director, supervisor or senior management).

## **Dividends**

The company has the power in certain circumstances to withhold, and pay to the relevant tax authorities, any tax payable under PRC law on any dividends or other distributions payable to a shareholder. Under Hong Kong law, the limitation period for an action to recover a debt (including the recovery of declared dividends) is six years, whereas under PRC laws, the relevant limitation period is two years. The company must not exercise its powers to forfeit any unclaimed dividend in respect of shares until after the expiry of the applicable limitation period.

## Closure of Register of Shareholders

The Companies Ordinance requires that the register of shareholders of a company must not be closed for the registration of transfers of shares for more than thirty days (extendable to sixty days in certain circumstances) in a year, whereas, as required by the Mandatory Provisions, share transfers shall not be registered within thirty days before the date of convening a general meeting or within five days before the base date of distribution of dividends.

#### **SHARES**

#### SHARES AND REGISTERED CAPITAL

The Company's shares are in form of equity.

The Company shall have ordinary shares at all times. The Company may set other types of shares subject to needs, upon approval by the authorities that are authorized by the State Council.

The issuing of shares by the Company shall be conducted on the principle of openness, fairness and justness, with each share of the same class bearing equal rights. The issuing conditions and price for each share of the same class issued at the same time shall be the same. Each share subscribed by any entity or individual shall be subscribed at the same price.

Upon approval of the securities regulatory authority of the State Council, the Company may issue shares to domestic investors and overseas investors. Upon approval by the securities regulatory authority of the State Council of the Company's plan for issuing domestic listed domestic shares and overseas listed foreign shares, the board of directors of the Company may arrange for implementation of such plan by means of separate issues. The Company's respective plans for issuing domestic listed domestic shares and overseas listed foreign shares in accordance with the preceding provision may be implemented respectively within fifteen (15) months upon the date of approval by the securities regulatory authority of the State Council. Where the Company issues overseas listed foreign shares and domestic investment shares within the total shares defined in the issuance plan, every such issue of shares shall be fully subscribed at one time. Where special circumstances make it impossible for full subscription at one time, the shares may be issued in several stages, subject to approval of the securities regulatory authority of the State Council.

#### INCREASE AND DECREASE IN SHARE CAPITAL

In accordance with the Relevant laws and regulations and subject to the passing of special resolutions at the general meeting of shareholders, the Company may increase its capital in the following ways to meet the needs of operations and business expansion:

- 1) offering new shares to non-specially-designated investors for subscription;
- 2) issuing new shares to existing shareholders;
- 3) issuing bonus shares to existing shareholders;
- 4) converting the capital reserve into capital;
- 5) any other means permitted by laws and administrative regulations.

Once the Company's increase of share capital by means of the issuance of new shares has been approved in accordance with the provisions of the Articles of Association, the issuance thereof shall be carried out in accordance with the procedures set out in the relevant laws and administrative regulations of the PRC.

Pursuant to the provisions of the Articles of Association, the Company may reduce its registered capital. The Company shall reduce its registered capital in compliance with the procedures as required by the Company Law and other relevant laws, regulations and this Articles of Association. The Company shall prepare a balance sheet and a list of assets when it reduces its registered capital.

The Company shall notify its creditors within 10 days from the date of the resolution on reduction in registered capital and shall publish an announcement in a newspaper within 30 days from the date of such resolution. A creditor shall have the right, within 30 days upon receipt of the notice from the Company or, in the case of a creditor who does not receive such notice, within 45 days of the date of the first announcement, to require the Company to repay its debt or to provide corresponding guarantee for such debt.

The registered capital of the Company following the reduction in capital shall not fall below the minimum statutory requirement.

#### REPURCHASE OF SHARES

The Company may, in accordance with the procedures of this Articles of Association and upon approval of the relevant competent authorities of the PRC, repurchase its shares under the following circumstances:

- 1) canceling its shares for the purpose of reducing its registered capital;
- 2) merging with another company which holds the shares of the Company;
- 3) granting shares as incentive to the staff of the Company;
- 4) acquiring the shares of shareholders who vote against any resolution adopted at the shareholders' general meeting on the merger or demerger of the Company and request the Company to acquire their shares; and
- 5) other circumstances permitted by laws and administrative regulations.

The Company may, upon approval of the relevant competent authorities of the PRC, repurchase its shares in one of the following ways:

- 1) making a pro rata general offer of repurchase to all its shareholders;
- 2) repurchasing shares through public trading on a stock exchange;
- 3) repurchasing by an off-market agreement; or
- 4) other ways as permitted by laws, administrative regulations and the relevant competent authorities.

The Company shall obtain prior approval of the shareholders at a shareholders' general meeting in accordance with the provisions of the Articles of Association before it repurchases its shares by means of an off-market agreement. The Company may, by obtaining prior approval of the shareholders at a shareholders' general meeting in the same manner, discharge or vary a contract which has been entered into in the aforesaid manner, or waive its rights thereunder.

In the event that the Company has repurchased its shares under the circumstance set out in clause (1), such shares shall be canceled within 10 days from the date of repurchase, and for

circumstances set out in clauses (2) and (4), such shares shall be transferred or canceled within six months from the date of repurchase. Where the Company has repurchased its shares pursuant to clause (3), shares so repurchased shall not exceed 5% of the total issued shares of the Company and shall be transferred to employees within one year.

The Company's registered capital shall be deducted an amount equal to the aggregate par value of those canceled shares.

#### TRANSFER OF SHARES

Any paid up overseas listed foreign shares listed on the Hong Kong Stock Exchange are free to be transferred pursuant to the Articles of Association, provided that the Board may refuse to recognize any instrument of transfer without assigning any reason unless the following conditions are satisfied:

- 1) HK\$2.50 transfer fee (per transfer document) is paid to the Company, or a higher fee agreed by the Hong Kong Stock Exchange, for the registration of the transfer of shares and other documents relating to or affecting ownership;
- 2) the instrument of transfer only relates to the overseas listed foreign shares listed in Hong Kong;
- 3) the stamp duty on the instrument of transfer payable according to laws has been paid;
- 4) the relevant share certificates and the evidences reasonably required by the Board showing that the transferor has the right to transfer such shares have been provided;
- 5) if the shares are to be transferred to joint holders, the number of joint holders shall not exceed four;
- 6) the relevant shares shall be free from any company's liens; and
- 7) no transfer of share shall be made to a minor or to a person of unsound mind or a legally incapable person.

If the Company refuses to register any transfer of shares, it shall provide the transferor and the transferee of the shares with a notification of refusal in relation to the registration of such transfer within 2 months from the date of filing a formal application for such transfer.

#### FINANCIAL AID FOR PURCHASE OF SHARES OF THE COMPANY

The Company or its subsidiaries shall not offer any financial aid at any time by any means to purchasers or prospective purchasers of the Company's shares. Such purchasers of the Company's shares as mentioned above shall include those who directly or indirectly assume the obligations due to the purchase of the shares of the Company.

The Company or its subsidiaries shall not offer any financial aid at any time by any means in order to reduce or relieve the obligations of the aforesaid purchasers.

This Article does not apply to the circumstances as defined below:

1) where the Company provides the relevant financial aid in good faith for the benefit of the Company and the main purpose of the financial aid is not to purchase shares of the Company, or the financial aid is an incidental part of an overall plan of the Company;

- 2) lawful distribution of the Company's property in the form of dividends;
- 3) distribution of dividends in the form of shares;
- 4) reduction of registered capital, share acquisition, adjustment of shareholding structure, etc., in accordance with the Articles of Association;
- 5) provision of loans by the Company within its business scope and in normal business (provided that the provision does not lead to a reduction in the net assets of the Company or that even if it constitutes a reduction, the financial aid was paid out of the Company's distributable profits); and
- 6) provision of fund by the Company for an employee shareholding scheme (provided that the provision does not lead to a reduction in the net assets of the Company or that even if it constitutes a reduction, the financial aid was paid out of the Company's distributable profits).

#### SHAREHOLDERS AND SHAREHOLDERS' GENERAL MEETINGS

#### **SHAREHOLDERS**

Shareholders of the Company shall be persons who lawfully hold the shares of the Company and whose names are registered in the register of shareholders. Shareholders shall enjoy rights and undertake obligations according to the class and number of shares held by them. Shareholders who hold the same class of shares shall enjoy equal rights and undertake equal obligations.

Shareholders holding different classes of shares in the Company shall enjoy equal rights in any distribution made in dividends or any other form.

Holders of the ordinary shares of the Company shall have the following rights:

- 1) the right to receive dividends and other forms of benefit distributions in proportion to their shareholdings;
- 2) the right to attend or appoint a proxy to attend shareholders' general meetings and to exercise the voting right thereat;
- 3) the right to supervise and manage the Company's business operations, put forward proposals and raise inquiries;
- 4) the right to transfer, grant or pledge the shares held in accordance with laws, administrative regulations and provisions of the Articles of Association;
- 5) the right to access relevant information in accordance with laws and the provisions of the Articles of Association, including:
  - 1. a copy of the Articles of Association upon payment of the costs thereof;
  - 2. the right to inspect and copy, subject to payment of a reasonable charge:
    - (1) the register of all shareholders;
    - (2) the personal particulars of the Directors, Supervisors and senior management of the Company, including:
      - (a) the present and former name and alias;

- (b) the principal address (place of residence);
- (c) the nationality;
- (d) the full-time job and all other part-time jobs and duties;
- (e) the identification documents and the numbers thereof.
- (3) the status of the share capital of the Company;
- (4) the reports stating the aggregate par value, quantity, maximum and minimum prices paid in respect of each class of shares repurchased by the Company since the end of the last accounting year and the aggregate amount incurred by the Company for this purpose;
- (5) the minutes of shareholders' general meetings;
- (6) the copy of corporate bonds, the resolutions made at the meetings of the Board, the resolutions made at the meetings of the Supervisory Committee and financial accounting report (only available for reference by shareholders).
- 3. Where a shareholder request to inspect or obtain a copy of the relevant information set out in the preceding article, he shall provide the Company with written documents evidencing the class and number of shares held by him in the Company, and the Company shall provide the information as requested upon verification of the identification of such shareholder:
- 6) the right to request the Company to acquire the shares held by shareholders who vote against any resolution adopted at the shareholders' general meeting on the merger or demerger of the Company;
- 7) in the event of the termination or liquidation of the Company, the right to participate in the distribution of the remaining property of the Company according to the number of shares held;
- 8) other rights conferred by the laws, the administrative regulations and the Articles of Association.

Resolution of the general meeting or the Board shall be deemed as invalid if it is in violation of laws and administrative regulations. If the procedures for convening a meeting of, or the method of voting at, a general meeting or the Board are in breach of any law, administrative regulation or this Articles of Association, or the content of a resolution is in breach of this Articles of Association, shareholders may petition to a court to rescind such resolutions within sixty days from the date on which such resolution is passed.

If a director and senior management personnel violates the laws, regulations or the provisions of the Articles during the performance of his/her duties to the Company and incurs losses to the Company, the shareholders holding individually or in aggregate 1% or more of the shares of the Company for a continued period of 180 days or more shall have the right to request in writing the supervisory committee to initiate legal action in a court; if the supervisory committee violates the laws, regulations or the provisions of the Articles during the performance of its duties to the Company and incurs losses to the Company, the shareholders may request in writing the board of directors to initiate

legal action in a court. If the supervisory committee or board of directors rejects to initiate legal action after receipt of the written request of the shareholders stipulated in the preceding paragraph, or fails to initiate action within 30 days after the date of receipt of the request, or any failure to immediately initiate action will result in irreparable damage to the interests of the Company in case of emergency, the shareholders as prescribed in the preceding paragraph shall, for the benefit of the Company and in its/his/their own name, have the right to directly initiate legal action in a court.

Where any person infringes the lawful interests of the Company and causes losses to the Company, the shareholders as prescribed in the first paragraph of this Article may initiate legal action in a court in accordance with the provisions of the preceding two paragraphs.

Where a director or senior management personnel violates the laws and regulations or the provisions of the Articles, the shareholders may initiate legal action in a court.

Shareholders of ordinary shares of the Company shall undertake the following obligations:

- (1) abiding by the laws, administrative regulations and the Articles;
- (2) making payment of the share capital according to the number of shares subscribed by them and the method of capital injection;
- (3) not to withdraw its shares unless in accordance with the laws and administrative regulations;
- (4) not to abuse their rights as a shareholder in infringing the interests of the Company or other shareholders; nor to abuse the status of the Company as an independent legal entity and limited liability of shareholders to impair the creditors' interests.
  - any shareholder who abuses his rights as a shareholder and causes any loss to the Company or any other shareholder shall be liable for indemnification of such loss according to law.
  - any shareholder who misuse the independent legal person status of the Company or his limited liability as a shareholder in evading debts and causes a serious damage to the interests of any creditor of the Company shall have a joint and several liability for the debts of the Company.
- (5) other obligations imposed by laws, administrative regulations and the Articles of Association.

Shareholders shall not assume any responsibility for further capital contribution other than the conditions agreed to by the subscribers of the relevant shares on subscription.

Except for the obligations as required by laws, regulations or the listing rules of the locality where shares of the Company are listed, the controlling shareholders shall not make any decisions that will impair the interests of all or some of the shareholders concerning the following aspects when they exercise their powers as shareholders by exercising their voting rights:

- (1) exempting the responsibility of the director and the supervisor to act in good faith for the maximum benefit of the Company;
- (2) approving the director and the supervisor to deprive the property of the Company (including but not limited to the opportunities favorable to the Company) in any form for their own benefits or for the benefits of others;

(3) approving the director and the supervisor to deprive the individual rights and interests of other shareholders (including but not limited to any distribution rights, voting rights, but excluding the restructuring the Company which is submitted to the general meeting of shareholders for approval in accordance with the Articles) for their own benefits or for the benefit of others.

#### General provisions of Shareholders' General Meeting

The Shareholders' General Meeting is the organ of authority of the Company and shall exercise its functions:

- 1) to decide the Company's operational guidelines and investment schemes;
- 2) to elect and remove directors and to determine matters relating to the directors' remunerations:
- 3) to elect and remove supervisors not being shareholders' representatives and to determine matters relating to the supervisors' remunerations;
- 4) to consider and approve the reports of the Board;
- 5) to consider and approve the reports of the Supervisory Committee;
- 6) to consider and approve the Company's annual financial budgets and final accounts;
- 7) to consider and approve the Company's profit distribution plan and plan for making up losses;
- 8) to resolve on an increase or a reduction in the Company's registered capital;
- 9) to resolve on matters such as merger, demerger, reorganization, dissolution and liquidation of the Company;
- 10) to resolve on the issue of bonds by the Company;
- 11) to resolve on the appointment, dismissal or non-reappointment of the accounting firms;
- 12) to amend the Articles of Association;
- 13) to consider proposals put forward by any shareholder representing 3% or more of the Company's shares with voting rights;
- 14) to consider the purchases or sales of any material assets of the Company within a year in excess of 30% of the Company's audited net assets in the latest period;
- 15) to consider and approve matters relating to the external guarantees specified by the Article 61 of the Articles of Association;
- 16) to consider and approve share incentive plans;
- 17) to consider and approve matters relating to change of the use of proceeds;
- 18) to consider any other matters to be resolved by shareholders' general meeting as required by the laws, administrative regulations and the Articles of Association;

Any external guarantees provided by the Company shall be considered and approved by the Board or the Shareholders' General Meeting.

The provision of any security by the Company to any shareholder or effective controlling person of the Company, if any, must be approved at a general meeting through a resolution. When motions on providing guarantees for shareholders and effective controllers and their connected parties are being considered at the shareholders' general meeting, the shareholder or the shareholder under the control of the effective controller shall abstain from voting, and such resolution shall be voted by more than half of the voting shares of other shareholders present at the general meeting.

A shareholders' general meeting shall either be an annual general meeting or an extraordinary general meeting. Annual general meetings shall be held once every year and within six months from the close of the preceding financial year.

An extraordinary general meeting shall be convened by the Board within two months of the occurrence of any one of the following circumstances:

- 1) the number of directors is less than the number stipulated in the Company Law or two thirds of the number required in the Articles of Association;
- 2) when the losses of the Company not made up for amount to one-third of the total amount of its paid-in share capital;
- 3) where any shareholder individually or jointly holding 10% or more of the Company's total issued shares carrying voting rights requests in writing the convening of an extraordinary general meeting;
- 4) when considered necessary by the Board;
- 5) when requested by the Supervisory Committee;
- 6) other circumstances stipulated by laws, administrative regulations or the Articles of Association.

## Convening of Shareholders' General Meeting

The Supervisory Committee may propose to the board of directors to convene an extraordinary general meeting in writing. The board of directors shall reply in writing as to whether or not it agrees to convene such extraordinary general meeting within 10 days upon receipt of the proposal in accordance with the laws, administrative regulations and provisions of these Articles.

If the board of directors agrees to convene an extraordinary general meeting, a notice of such meeting shall be issued within five days after a relevant resolution of the board of directors is passed. Approval of the Supervisory Committee must be sought if the proposal in the notice is different from the original proposal.

If the board of directors does not agree to convene an extraordinary general meeting, or fails to reply within 10 days upon receipt of the proposal, the board of directors shall be deemed to be unable, or to fail, to perform its duty to convene a shareholders' general meeting, and the Supervisory Committee may convene and preside over the shareholders' general meeting.

The following procedures shall be followed by the shareholders when requesting for convening of extraordinary general meetings or class meetings:

1) Shareholders who individually or collectively hold 10% or more of the shares carrying the right to vote at the meeting sought to be held may sign one or more written requests of

identical form and substance requesting the Board to convene an extraordinary general meeting or a class meeting and stating the subject of the meeting. The shareholding referred to above shall be calculated as of the date on which the written request is made by shareholder(s). The Board shall provide written feedback regarding the agreement or disagreement of convening the extraordinary general meeting within ten days after having received the above-mentioned written proposal in accordance with the laws, administrative regulations or the Articles of Association.

- 2) If the board of directors agrees to convene an extraordinary general meeting or class meeting, a notice of such meeting shall be issued within five days after a relevant resolution of the board of directors is passed. Approval of the Proposing Shareholders must be sought if the proposal in the notice is different from the original proposal.
- 3) If the board of directors does not agree to convene an extraordinary general meeting or class meeting, or fails to reply within 10 days upon receipt of the proposal, shareholders holding individually or jointly 10% or more of the Company's shares may propose to the Supervisory Committee to convene a general meeting in writing.
- 4) If the Supervisory Committee agrees to convene an extraordinary general meeting, a notice of such meeting shall be issued within 5 days upon receipt of the proposal. Approval of the Proposing Shareholders must be sought if the proposal in the notice is different from the original proposal.
- 5) If the Supervisory Committee does not issue the notice of such meeting within the prescribed period, it shall be deemed that the shareholders' general meeting will not be convened and presided over by the board of supervisors, and shareholders holding individually or jointly 10% or more of the Company's shares may have the discretion to convene and preside over the meeting. The procedure to convene the meeting shall be as close as possible to the procedure for convening a meeting by the Board.

All reasonable expenses incurred in convening and holding the meeting by shareholders due to the failure of the board of directors to hold such meeting in response to the aforesaid request shall be borne by the Company and shall be deducted from the amounts due by the Company to the defaulting director(s).

## Proposals at the Shareholders' General Meeting

The Company convenes a general meeting, Shareholder(s) severally or jointly holding 3% or more of our outstanding shares carrying voting rights are entitled to submit written new proposals to the Company. Matters mentioned in proposals which are within the scope of the powers of the general meeting shall be included in the meeting agenda and submitted to the general meeting for consideration.

Where the Company convenes a general meeting, a written notice shall be given 45 days prior to the date of the meeting to notify all the Shareholders in the Shareholders' register of the issues to be considered at the meeting, and the date and venue of the meeting. Any Shareholder who intends to attend the meeting shall deliver to the Company a written reply stating his or her intention to attend 20 days prior to the meeting.

The Company shall, based on the written replies received twenty days before the date of convening the shareholders' general meeting, calculate the number of shares with voting right

represented by the shareholders who intend to attend the meeting. If the number of shares with voting rights represented by the shareholders who intend to attend the meeting reaches one half or more of the Company's total shares with voting rights, the Company may convene the shareholders' general meeting. Otherwise, the Company shall within five days notify the shareholders again by way of an announcement of the matters to be considered at, and the date and place for, the meeting. After giving notice by announcement, the Company may convene the meeting.

An extraordinary general meeting shall not make decisions on matters not stated in the notice of meeting.

## Resolutions of the Shareholders' General Meetings

Shareholders (including proxies thereof) shall exercise their voting rights as per the voting Shares they represent. Each Share carries the right to one vote. The Company has no voting right for the Shares it holds, and such part of Shares shall be excluded from the total number of voting Shares represented by the Shareholders attending the general meeting.

Resolutions of shareholders' general meetings shall be classified as ordinary resolutions and special resolutions. To adopt an ordinary resolution, a majority of the voting rights represented by the shareholders (including proxies) present at the meeting must be cast in favor of the resolution. To adopt a special resolution, not less than two-thirds of the voting rights represented by the shareholders (including proxies) present at the meeting must be cast in favor of the resolution.

The following matters shall be resolved by ordinary resolution at a shareholders' general meeting:

- 1) work reports of the Board and the Supervisory Committee;
- 2) plans for profit distribution and for making up losses prepared by the Board;
- 3) appointment or removal of directors and supervisors, and their remuneration and manner of payment thereof;
- 4) the Company's annual financial budgets and final accounts, balance sheets, income statements and other financial statements;
- 5) matters other than those required by the laws, administrative regulations or the Articles of Association to be approved by special resolution.

The following matters shall be resolved by special resolution at a shareholders' general meeting:

- 1) increase or reduction of the Company's share capital and issue of shares of any class, warrants and other similar securities:
- 2) issue of bonds of the Company;
- 3) demerger, merger, dissolution and liquidation;
- 4) change of corporate form of the Company;
- 5) purchases or sales of material assets of the Company or the amount guaranteed in excess of 30 percent of the audited total assets of the Company within a year;
- 6) amendment to the Articles of Association;

7) any other matters stipulated by the laws, administrative regulations or the Articles of Association or determined by an ordinary resolution at a shareholders' general meeting as having a material impact on the Company and requiring to be resolved by special resolution.

In case the shareholders' general meeting examines matters relating to connected transactions, the associated shareholder (or act as proxies of other shareholder) shall withdraw from the voting, its voting shares shall not be included in the total amount of valid voting shares. While the shareholders' general meeting examines connected transactions matters, the associated shareholders shall withdraw from the voting; where the meeting need the associated shareholders to give explanations, the associated shareholders bear the duty and obligation to make truthful explanation in the meeting. The meeting presider shall announce at the beginning of the meeting where there are matters that associated shareholders shall withdraw from voting.

## **Special Procedures for Voting by Class Shareholders**

Shareholders holding different classes of shares shall be referred to as class shareholders. A holder of class shares shall, in accordance with the laws, administrative regulations and the Articles of Association, enjoy rights and assume obligations. Apart from the holders of other classes of shares, the holders of domestic shares and overseas listed foreign shares shall be taken to be shareholders of different classes.

Rights conferred to class shareholders may not be varied or abrogated unless approved by way of special resolution at a shareholders' general meeting and by the affected class shareholders at a separate shareholders' meeting convened in accordance with the Articles of Association.

The following circumstances shall be taken to be a variation or abrogation of the rights of shareholders of a particular class:

- 1) to increase or decrease the number of shares of such class, or to increase or decrease the number of shares of a class having a voting right or a right to dividends or other privileges equal or superior to the shares of such class;
- 2) to effect an exchange of all or part of the shares of such class into those of another class or to effect an exchange of or grant a right of exchange of all or part of the shares of another class into those of such class;
- 3) to remove or reduce the rights to acquire accrued dividends or cumulative dividends attached to the shares of such class;
- 4) to reduce or remove the rights with a priority to acquire dividends or property distribution during the liquidation of the Company attached to the shares of such class;
- 5) to add, remove or reduce the conversion, options, voting, transfer or pre-emptive rights or the rights to acquire securities of the Company attached to the shares of such class;
- 6) to remove or reduce the rights to receive payables from the Company in a particular currency attached to the shares of such class;
- 7) to create a new class of shares with voting right, right to dividends or other privileges equal or superior to those of the shares of such class;

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- 8) to restrict the transfer of ownership of the shares of such class or to impose additional restrictions thereon;
- 9) to grant the right to subscribe for, or convert into, the shares of such or another class;
- 10) to increase the rights or privileges of the shares of another class;
- 11) to cause the holders of different classes of shares to bear a disproportionate burden of obligations during the restructuring scheme of the Company;
- 12) to vary or abrogate any provision of this Articles of Association.

Shareholders of the affected class, whether or not entitled to vote at general meetings, shall nevertheless be entitled to vote at class meetings in respect of matters concerning subparagraphs (2) to (8), (11) and (12) of Article 96, but interested shareholder(s) shall not be entitled to vote at class meetings.

Resolutions proposed at a class meeting shall be passed by shareholders present at the meeting representing two-thirds or more of the share interests with voting rights in accordance with the Article 87 of the Articles of Association.

The special procedures for voting by class shareholders shall not apply to the following circumstances:

- 1) where the Company issues, upon approval by way of a special resolution at a general meeting, either separately or concurrently once every twelve months, domestic shares and overseas listed foreign shares, to the extent that the number of the shares to be issued does not exceed twenty percent of the total number of the issued shares of their respective class;
- 2) where the Company's plan to issue domestic shares and overseas listed foreign shares upon its incorporation is completed within fifteen months from the date of approval by the supervisory authorities under the State Council.

#### Directors and the Board

#### **Directors**

Director shall be elected at general meetings. A Director shall serve a term of three years, and may seek reelection upon expiry of the said term.

The Director need not be the shareholders of the Company.

The term of office of a director shall start from the date on which the said director assumes office to the expiry of the current Board. If the term of office of a director expires but reelection is not made responsively, the said director shall continue fulfilling the duties as director pursuant to laws, administrative regulations, departmental rules and the Articles of Association until a new director is elected.

The Company shall have independent non-executive directors. Independent non-executive directors are the Directors who shall not act any other position other than being as independent non-executive directors and shall not have relationship with the Company or its substantial shareholders which may hinder their independent and objective judgment. At least one third of the members of the Board shall be independent non-executive directors and the total number shall not be

less than three, including at least one independent non-executive director who shall possess appropriate professional qualifications or appropriate accounting or related financial management expertise in compliance with the requirements of the Rule 3.10(2) of the Hong Kong Listing Rules.

The independent non-executive directors shall maintain the independence in compliance with the requirements of the Rule 3.13 of the Hong Kong Listing Rules.

#### The Board

The Company shall have a Board comprising of 9 Directors, with no less than three independent non-executive directors. The Board shall have one chairman and may have one vice-chairman who is elected by more than half of all directors.

The Board shall be accountable to the general meeting and exercise the following functions and powers:

- 1) to convene general meetings and report to general meetings;
- 2) to execute resolutions of general meetings;
- 3) to resolve on the Company's business plans and investment plans;
- 4) to prepare the annual financial budgets and final accounting plans of the Company;
- 5) to prepare the profit distribution plan and loss makeup plan of the Company;
- 6) to prepare plans for the increase or decrease of the registered capital of the Company and for the issuance of corporate bonds and other securities and listing scheme;
- 7) to formulate plans for repurchase of Shares of the Company, merger, division, dissolution or transformation of the Company;
- 8) to consider and approve the matters regarding the acquisition and disposal of significant assets with a value of no more than 30% of the latest audited total assets of the Company, and delegate the rights to the operation management to decide such matters as the case may be;
- 9) to appoint or dismiss the general manager; to decide to appoint or dismiss the Company's deputy general manager, chief accountant, chief engineer and other senior management as nominated by the general manager; to decide to appoint or dismiss the secretary of the Board as nominated by the chairman;
- 10) to determine matters regarding to the remunerations of the above-mentioned senior management;
- 11) to set up the basic management system of the Company;
- 12) to formulate the proposals for any amendment to the Articles of Association;
- 13) to decide on the establishment of the Company's internal management structure;
- 14) to decide on matters relating to the Company's investments, acquisitions or disposal of assets, financing and connected transactions as required by the Hong Kong Listing Rules;
- 15) to evaluate and determine the nature and extent of risks it is willing to take in achieving the Company's strategic objectives, and ensure that the Company establishes and maintains appropriate and effective risk management and internal control system;

constantly supervise the risk management and internal control system of the Company and ensure to review at least once a year the effectiveness of the risk management and internal control system of the Company and its subsidiaries;

- 16) to decide other major issues of the Company, other than the issues to be determined by the Shareholders' General Meeting as required by the Company Law and the Articles of Association:
- 17) to exercise other functions and powers as stipulated by the laws, administrative regulations, the Articles of Association and the Shareholders' General Meeting.

The Board may resolve on the issues specified in the preceding paragraph by approval of more than half of the Directors save for the issues specified in (6), (7), and (12), in which approval of two thirds of the Directors is required.

The chairman shall exercise the following functions and powers:

- 1) to preside over general meetings and to convene and preside over the Board meetings;
- 2) to supervise and urge and examine the implementation of the resolutions of the Board;
- 3) to sign the securities issued by the Company;
- 4) to exercise other functions and powers conferred by the Board.

Board meetings shall include the regular Board meetings and interim Board meetings. The Board shall notify the Supervisors to attend the Board meetings.

Board meetings shall be held regularly at least four times every year at approximately quarterly intervals, and shall be convened by the chairman, with the notice of meeting sent in writing to all the Director 14 days in advance. The regular Board meetings shall exclude approval from the Directors by signing in writing.

In any of the following circumstances, the chairman shall convene over an interim meeting of the Board within 10 days:

- 1) proposed by shareholders representing more than 1/10 of the voting rights;
- 2) proposed by the Chairman;
- 3) jointly proposed by more than one third of the Directors;
- 4) proposed by more than two independent non-executive directors;
- 5) proposed by the Supervisory Committee;
- 6) proposed by the general manager.

Board meetings shall be held regularly with the notice of meeting sent to all the Directors and Supervisors 14 days in advance, and the notice of interim meeting shall be sent to all Directors and Supervisors within a reasonable time before the convening of such meeting.

A Board meeting shall be effected and attended by more than one half of the Director or authorized representatives.

Every director shall have one vote. Resolutions made by the Board, unless otherwise specified by the laws, the administrative regulations and the Articles of Association, shall be passed by more than half of all Directors.

Director shall attend Board meetings in person. If any Director cannot attend the meeting for any reason, he may authorize in writing another Director to act on his behalf. The scope of authorization shall be specified in the power of attorney.

The Board shall keep minutes of resolutions on matters discussed at the meeting. The minutes shall be signed by the Director or its authorized representative present at the meeting and by the person who recorded the minutes.

The Director shall be responsible for the resolutions of the Board. If any resolution runs counter to the laws, administrative regulations or this Articles of Association, and causes any material losses to the Company, Director who votes for the said resolution shall be liable for compensation to the Company. If any Director raises an objection to the resolution and the said objection is recorded in the minutes, the said Director may be exempt from any liability.

If any director or any its associate (as defined in Hong Kong Listing Rules) has material interest with or has connection with the matters proposed at a board meeting, the director shall abstain from voting on the resolution and shall not vote on behalf of other director when considering such matters, and shall not be included in the quorum of the meeting. The board meeting may be held when more than half of the attending directors have no connection with the entity. The resolution of the board meeting shall be passed by more than half of the non-connected directors. If the number of non-connected directors attending the meetings is less than three, the matter shall be submitted to the shareholders' general meeting for approval. When submitting to the shareholders' general meeting for approval, the Board shall state its review and consideration for the proposal and shall record the opinions of unaffiliated directors' on such proposal.

#### **Special Committees under the Board**

The Company has set up special committees under the Board, such as the Audit and Risk Management Committee, the Nomination Committee and the Remuneration and Appraisal committee. The Board may set up other special committees and adjust existing committees as required.

The Board shall formulate rules of procedures for special committees with respect to its composition, duties, discussion procedures and etc.

## **Secretary to the Board of Directors**

The Company shall have a secretary to the board, who shall be accountable to the Board. The secretary is a senior management of the Company.

The secretary to the Board should be a natural person who have the requisite professional knowledge and experience, and shall be nominated by the chairman and appointed or disappointed by the board.

The secretary to the Board shall mainly perform the following duties:

1) to ensure that the Company has complete organization documents and records; to keep and manage the shareholders' information; to assist the Directors to deal with the daily work of the Board;

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- 2) to act as the contact of the Company with the securities regulatory authorities, to prepare and timely submit the reports and documents required by the regulatory authorities, to accept and perform the relevant tasks instructed by the regulatory authorities;
- 3) to prepare the meetings of the Board and the shareholders' general meetings, and to record at the meeting and to keep the documentation and records of the meeting;
- 4) to ensure that the shareholders' register of the Company is established appropriately and that the persons who have the right of access to the relevant records and documents of the Company obtain the same in due time.
- 5) to coordinate and organize the Company's information disclosure, and to establish sound the information disclosure system; to participate all meeting relating to the disclosure of information of the Company and to timely know the Company's major decisions and related information.

A director or senior management of the Company may concurrently act as the secretary to the Board. The accountant of the accounting firm appointed by the Company shall not act as secretary to the Board of the Company.

Where a director concurrently acts as the secretary to the Board of the Company and an act is required to be done by a director and the secretary to the Board of the Company separately, such person shall not act in both capacities of a director and a secretary to the Board of the Company.

## General Manager and Other Senior Management

The Company shall have one general manager, several deputy general managers, one chief accountant, one chief engineer and one secretary to the Board, who shall be appointed or dismissed by the Board.

The general manager of the Company shall be accountable to the Board and exercise the following functions and powers:

- 1) to manage the business operations of the Company, and organize execution of the Board's resolutions;
- 2) to organize to execute the Company's annual business plans and investment plans;
- 3) to prepare the plan for the internal management setup of the Company;
- 4) to draft the basic management system of the Company;
- 5) to formulate the Company's specific rules;
- 6) to decide to appoint or dismiss executives other than those appointed or dismissed by the Board:
- 7) to propose to the Board to appoint or dismiss the deputy general manager, chief accountant and chief engineer of the Company;
- 8) to exercise other functions and powers conferred in this Articles of Association and by the Board.

The general manager of the Company shall attend Board meetings and, if not a Director, shall not have voting right thereat.

## **Supervisors and Supervisory Committee**

## **Supervisors**

The members of the Supervisory Committee shall be consisted of 3 Shareholder representatives and 2 employee representatives. Shareholder representatives shall be elected or replaced at general meeting, and employee representatives shall be elected or removed democratically by employees of the Company.

The Director, general manager and other senior management of the Company shall not concurrently act as Supervisor.

## **Supervisory Committee**

The Company shall have a Supervisory Committee and the Supervisory Committee shall be composed of five members. A Supervisor shall serve a term of three years and be reelected for successive terms. The Supervisory Committee shall have one chairman and the Chairman of the Supervisory Committee shall be appointed or removed by the votes of more than two thirds of the members of the Supervisory Committee.

The Supervisory Committee shall be accountable to all general meeting and exercise the following functions and powers:

- 1) to examine financial operations of the Company;
- 2) to supervise the performance of duties by the Director and senior management of the Company, and propose dismissal of Director and senior management who have violated laws, administrative regulations, this Articles of Association or the resolutions of general meetings;
- 3) to require Director and senior management to make corrections if their conduct has damaged the interests of the Company;
- 4) to review the financial reports, operating reports and profit distribution schemes to be submitted by the Board to the general meetings; to engage certified public accountants and practicing auditors in the name of the Company to assist reviewing if there is any doubt;
- 5) to propose the convening of extraordinary general meetings and, in case the Board does not perform the obligations to convene and preside over the general meetings as required by the Articles of Association, to convene and preside over the general meetings;
- 6) to propose motions to the general meeting;
- 7) to initiate legal proceedings against Director and senior management in accordance with the Company Law;
- 8) to exercise other functions and powers conferred in this Articles of Association and by the Board.

The supervisor is entitled to attend Board meetings, and make enquiry or suggestion regarding resolutions at Board meetings.

The supervisory committee shall meet at least once in every six months and the chairman of supervisory committee shall convene the meeting. The Supervisors may propose to convene an interim meeting of the supervisory committee; and notify all supervisors in writing ten days before the meeting.

A supervisory committee meeting shall not be held unless it is attended by more than two thirds of the members of the supervisory committee. If any supervisor cannot attend the meeting for any reason, he may authorize in writing another supervisor to act on his behalf. The scope of authorization shall be specified in the power of attorney.

## The Resolution of the Supervisory Committee

Each supervisor has one vote. The resolution made by the supervisory committee shall be approved by more than two thirds of the members of the supervisory committee.

# The Qualifications and Obligations of Directors, Supervisors and Senior Management of the Company

In any of the following circumstances, a person shall not serve as Director, Supervisor, general manager or other senior management of the Company:

- 1) without capacity or with limited capacity for civil conduct;
- 2) has been sentenced to criminal punishment due to corruption, bribery, embezzlement of property, misappropriation of property or disrupting the order of economy, and less than five years have elapsed since the punishment is fully executed; or has been deprived of political rights due to any criminal offenses and less than five years have elapsed since the punishment is fully executed;
- 3) has served as a Director, factory manager or manager of a company or an enterprise that is bankrupt and liquidated, and is personally liable for the bankruptcy of the company or enterprise, and less than three years have elapsed since the date of completion of the bankruptcy liquidation of the company or enterprise;
- 4) has served as the legal representative of a company or an enterprise whose Business License was revoked and ordered to close down due to illegal activities and was personally liable for such punishment, and less than three years has elapsed since the date of revocation of the business license of the company or enterprise;
- 5) has large amount of overdue debts;
- 6) is under investigation by the judiciary authority for violation of the criminal law;
- 7) is disqualified as corporate leader in laws and administrative regulations;
- 8) is not a natural person;
- 9) was ruled by the relevant regulatory authority that he has violated the relevant securities regulations and committed any fraudulent or dishonest act, and less than five years have elapsed since such ruling was made;
- 10) was involved in other circumstances as prescribed by the laws and regulations of the jurisdiction where the shares of the Company are listed.

The validity of an act of a Director, general manager and other senior management of the Company on behalf of the Company for a bona fide third person is not affected by any incompliance in the appointment, election or qualification thereof.

In fulfilling duties, the Director, supervisor, the general manager and other senior management shall observe the principle of honesty and shall not set themselves in a position where their own

#### SUMMARY OF ARTICLES OF ASSOCIATION

interests conflict with their obligations. The said principle includes (but not limited to) the following obligations:

- 1) to sincerely act in the best interest of the Company;
- 2) to exercise powers within his terms of reference without ultra vires;
- 3) to exercise the discretion vested in him personally and not to allow himself to act under the control of any other party; unless permitted by laws and administrative regulations or with the informed consent of the shareholders' general meeting, delegation of discretionary powers to others is prohibited;
- 4) to treat shareholders of the same class equally and to treat shareholders of different classes fairly;
- 5) unless otherwise provided in the Articles of Association or with the informed approval of the shareholders' general meeting, not to enter into any contract, transaction or arrangement with the Company;
- 6) not to use the Company's assets for personal benefits in any manner without the informed consent of the shareholders' general meeting;
- 7) not to use his authority to accept bribes or other illegal income or embezzle the Company's property in any manner, including (but not limited to) any opportunity favorable to the Company;
- 8) not to accept commissions in connection with the Company's transactions without the informed consent of the shareholders' general meeting;
- 9) to comply with the Articles of Association, to perform duties faithfully, to safeguard the Company's interests and not to seek personal gains by taking advantage of his position and authority in the Company;
- 10) not to compete with the Company in any way without the informed consent of the shareholders' general meeting;
- 11) not to misappropriate the Company's funds and not to set up accounts in his own name or in the any other names for depositing the Company's assets; not violate the provisions of the Articles of Association, and not to lend such funds to any other persons and not to provide guarantees for the debts of shareholders of the Company or any other personal liabilities with the assets of the Company without the consent of the shareholders' general meeting and the Board; and
- 12) not to release any confidential information in relation to the Company which he has obtained during his term of office without the informed consent of the shareholders' general meeting; not to use such information other than for the benefit of the Company, save that such information may be disclosed to the court or other competent authorities of the government if:
  - 1. stipulated by laws;
  - 2. required in the public interests;
  - 3. required in the interests of the relevant directors, supervisors, general manager and other senior management.

The Company shall be entitled to the income gained by the directors from any of the acts listed above; the one shall be liable for compensation if any loss is caused to the Company.

Where a director, supervisor, general manager or other senior management of the Company is, directly or indirectly, materially interested in a concluded or contemplated contract, transaction or arrangement with the Company (other than his contract of service with the Company), he shall declare the nature and extent of his interests to the Board as soon as possible, whether or not such matter is subject to the approval or consent of the Board under normal circumstances.

The Company shall not in any manner pay taxes for or on behalf of a Director, supervisor, general manager and any other senior management.

The Company shall not directly or indirectly extend a loan to or provide any guarantee in connect with the extension of a loan to a Director, supervisor, general manager and other senior management personnel of the Company and its shareholders or any of their respective associates.

The following transactions are not subject to the above prohibition:

- (1) The provision by the Company of a loan or a guarantee of a loan to its subsidiaries;
- (2) The provision by the Company of a loan or a guarantee of a loan or any other funds to any of its Directors, supervisors, president and other senior management personnel to meet expenditure incurred by him for the purposes of the Company or for the purpose of enabling him to perform his duties, in accordance with the service contract approved by the shareholders in Shareholders' general meeting.
- (3) the Company may make a loan to or provide a loan guarantee to any of the relevant Directors, supervisors, president and other senior management personnel or their respective associates on normal commercial terms, provided that the ordinary course of business of the Company should include the lending of money or the provision of loan guarantees.

A loan made by the Company in breach of the preceding Article shall be forthwith repayable by the recipient of the loan regardless of the terms of the loan.

In addition to any rights and remedies provided by the laws and administrative regulations, where a director, supervisor, general manager or other senior management of the Company is in breach of his duties owed to the Company, the Company shall have a right to:

- 1) demand such director, supervisor, general manager or other senior management to compensate the Company for the losses sustained thereby as a result of such breach;
- 2) rescind any contract or transaction which has been entered into by the Company with such director, supervisor, general manager or other senior management or with a third party (where such third party knows or should have known that such director, supervisor or senior management has breached his duties owed to the Company);
- 3) demand such director, supervisor, general manager or other senior management to surrender profits made as a result of the breach of his duties;
- recover any monies received by the director, supervisor, general manager or other senior management which should have been received by the Company, including (but without limitation to) commissions;

#### SUMMARY OF ARTICLES OF ASSOCIATION

5) demand repayment of interest earned or which may have been earned by such director, supervisor, general manager or other senior management on the monies that should have been paid to the Company.

The Company shall, with the prior approval of the shareholders' general meeting, enter into a contract in writing with a director or supervisor regarding his emoluments.

The contracts concerning emoluments entered into between the Company and its directors or supervisors shall provide that in the event that the Company is acquired, the Company's directors and supervisors shall, subject to the prior approval of the shareholders' general meeting, have the right to receive compensation or other payment in respect of his loss of office or retirement.

## Financial and Accounting System and Profit Distribution

## **Financial and Accounting System**

The Company shall establish its financial and accounting system in accordance with the laws, administrative regulations and PRC accounting standards formulated by the competent finance authorities of the State Council.

The financial statements of the Company shall be prepared in accordance with both the PRC accounting standards and regulations and the international accounting standards, or those of the overseas place where the Company's shares are listed. If there is any material difference between the financial statements prepared respectively in accordance with the two accounting standards, such difference shall be stated in the notes to the financial statements. In distributing its profits after tax for an accounting year, the lower of the two amounts shown in the financial statements shall be adopted.

Any interim results or financial information published or disclosed by the Company shall be prepared and presented in accordance with the PRC accounting standards and regulations, and also in accordance with either international accounting standards or those of the overseas place where the Company's shares are listed.

The Company shall announce its financial reports twice each accounting year in accordance with international or overseas listing accounting standards, such as publish its interim financial report within two months after the expiration of the first six months of each accounting year and dispatch its annual financial report within four months after the end of an accounting year.

The Company shall not maintain accounts separately other than those provided by the laws.

#### **Distribution of Profits**

In distributing the current year's profit after tax, 10% of the profit shall be allocated to the Company's statutory reserve fund. When the aggregate amount of the statutory reserve fund has reached 50% or more of the Company's registered capital, further appropriations are not required.

If the statutory reserve fund of the Company is insufficient to make up the losses of the previous year, the profits of the current year shall be used to make up such losses before allocating to the statutory reserve fund in accordance with the preceding paragraph.

#### SUMMARY OF ARTICLES OF ASSOCIATION

After allocation of its profits after tax to its statutory reserve fund, the Company may allocate its profits after tax to its discretionary reserve fund upon a resolution of the shareholders' general meeting.

The remaining profits after tax after the Company has made up its losses and allocated to its reserve funds may be distributed to its shareholders in proportion to their shareholdings according to the resolution of the shareholders' meeting of the Company.

If a shareholders' general meeting has, in violation of the preceding paragraph, distributed profits to shareholders before making up losses and allocating to the statutory reserve fund, shareholders shall return to the Company the profits distributed in violation of the provisions.

The shares held by the Company shall not be entitled to any profit distribution.

The capital reserve fund shall include the following amounts:

- 1) the premiums received when shares are issued at a premium to their par value;
- 2) any other income required to be included in the capital reserve fund by the competent finance authorities of the State Council.

The Company's reserve funds shall be used to make up the losses or expand the production operations, or be converted to increase the share capital of the Company. However, the capital reserve fund shall not be used to make up the losses of the Company.

When the statutory reserve fund is converted into capital, the remainder of the fund shall not be less than 25% of the Company's registered capital prior to such conversion.

The Company may distribute dividends in the form of cash or shares.

The Company shall appoint a receiving agent for the holders of overseas listed foreign shares. The receiving agent shall receive on behalf of such shareholders any dividends or other amounts payable by the Company to them in respect of the overseas listed foreign shares, and shall keep such amounts to pay the relevant shareholders.

The receiving agent appointed by the Company shall satisfy the requirements of the laws of the place where the Company's shares are listed or the rules of the relevant stock exchange.

The receiving agent appointed by the Company for holders of overseas listed foreign shares listed in Hong Kong shall be a trust company registered under the Trustee Ordinance of Hong Kong.

#### **Appointment of Accounting Firms**

The Company shall appoint an independent accounting firm which is qualified under the relevant regulations of the PRC to audit the Company's annual financial reports and review other financial reports of the Company.

The accounting firm appointed by the Company shall hold office for a period commencing from the conclusion of this annual general meeting until the conclusion of the next annual general meeting.

The accounting firm for conducting the annual audit appointed by the Company shall have the following rights:

- 1) the right to review the books, records and vouchers of the Company at any time; and the right to require the directors, general manager or other senior management of the Company to supply relevant information and explanations;
- the right to require the Company to take all reasonable steps to obtain from its subsidiaries such information and explanations necessary for the accounting firm to discharge its duties; and
- 3) the right to be in attendance at shareholders' meetings and to receive all notices of, and other communications relating to, any shareholders' meeting which any shareholder is entitled to receive, and to speak at any shareholders' meeting on matters concerning its role as the Company's accounting firm.

The shareholders' general meeting may by ordinary resolution remove an accounting firm before the expiration of its term of office, irrespective of the provisions in the contract between the accounting firm and the Company. If the accounting firm has the right to claim compensation for its removal, that right shall not be affected thereby.

The remuneration of an accounting firm or the manner in which such remuneration is determined shall be decided by a shareholders' general meeting. The remuneration of the accounting firm appointed by the Board shall be determined by the Board.

If the Company proposes to remove an accounting firm or not to renew the appointment thereof, it shall notify the accounting firm in advance, and the latter shall have the right to state its opinions at a shareholders' general meeting. If the accounting firm resigns, it shall explain to the shareholders' general meeting whether there has been any impropriety on the part of the Company.

The accounting firm may resign from its office by depositing a written notice of resignation at the legal address of the Company. The notice shall become effective on the date of such deposit or on such later date as may be stated therein. The notice shall contain the following statements:

- a statement to the effect that there are no circumstances connected with its resignation which it considers shall be brought to the notice of the shareholders or creditors of the Company; or
- 2) a statement of any such circumstances that shall be explained.

The Company shall, within fourteen days after receipt of the notice referred to in the second paragraph of this Article, send a copy of the notice to the relevant competent authorities. If the notice contains a statement under the preceding Article, a copy of such statement shall be placed at the Company for shareholders' inspection. The Company shall also send a copy of such statement by prepaid mail to every holder of overseas listed foreign Shares at the address registered in the register of shareholders.

If the accounting firm's notice of resignation contains a statement of any such circumstances that shall be explained, the accounting firm may request the Board to convene an extraordinary general meeting to listen to the explanation on the resignation.

## Dissolution and Liquidation of the Company

In any of the following circumstances, the Company shall be dissolved and liquidated according to the laws:

- 1) the term of operation expires;
- 2) a shareholders' general meeting resolves to dissolve the Company;
- 3) dissolution is necessary due to a merger or demerger of the Company;
- 4) the Company is declared bankrupt according to the law due to its failure to settle liabilities due;
- 5) the business license of the Company is revoked and the Company is ordered to close down or canceled according to the laws;
- 6) where the Company has experienced material difficulties in operation and management, and the continuous operation thereof would lead to substantial loss to the benefits of its shareholders which cannot be resolved by other means, shareholders holding 10% or more of the total voting rights of the Company may appeal to the people's court for dissolution of the Company.

Where the Company is dissolved pursuant to sub-paragraph (1), (2), (4) and (5) of the preceding Article, a liquidation committee shall be established to commence liquidation within 15 days from the date of occurrence of events giving rise to dissolution, and the composition of the liquidation committee shall be determined by an ordinary resolution at a shareholders' general meeting. In case no liquidation committee is established within the specified period to commence liquidation, the creditors may apply to the People's Court to designate relevant persons to form a liquidation committee and commence liquidation.

Where the Company is dissolved pursuant to sub-paragraphs (4) of the preceding Article, the people's court shall, according to the relevant laws, organize the shareholders, relevant authorities and relevant professionals to establish a liquidation committee to carry out the liquidation.

Where the Company is dissolved pursuant to sub-paragraph (5) of the preceding Article, the relevant competent authorities shall organize the shareholders, relevant authorities and relevant professionals to establish a liquidation committee to carry out the liquidation.

Where the Board decides to liquidate the Company for any reason other than the Company's declaration of its own bankruptcy, the Board shall include a statement in its notice convening a shareholders' general meeting to consider the proposal to the effect that, after making full inquiry into the affairs of the Company, the Board is of the opinion that the Company will be able to pay its debts in full within twelve months from the commencement of the liquidation.

All the functions and powers of the Board shall cease immediately upon the establishment of a liquidation committee. During the liquidation period, the Company shall not commence any new business activities.

During the liquidation period, the liquidation committee shall exercise the following functions and powers:

1) to sort out the Company's assets and prepare a balance sheet and a list of assets respectively;

- 2) to notify creditors by sending notice or by making an announcement;
- 3) to dispose of and liquidate any unfinished businesses of the Company;
- 4) to pay outstanding taxes as well as taxes arising in the course of the liquidation;
- 5) to settle claims and debts;
- 6) to dispose of the remaining assets of the Company after the repayment of debts; and
- 7) to represent the Company in any civil proceedings.

The liquidation committee shall notify all creditors within 10 days after its establishment and shall make newspaper announcements within 60 days. Creditors should, within 30 days from the date of receipt of notice, or (if no written notice is received in person) within 45 days from the date of the first notice, claim for their creditors' rights to the liquidation group.

Creditors, when filing their claims, should illustrate those claim-related issues and provide supporting documentation thereon. The liquidation group should register such claims.

The liquidation committee shall not settle the debts to creditors during the creditor's claim period.

After sorting out the Company's assets and preparing a balance sheet and a list of assets, the liquidation committee shall formulate a liquidation plan and submit it to a shareholders' general meeting or to the relevant competent authorities for confirmation.

The remaining assets of the Company after settlement of payments of liquidation expenses, unpaid staff wages and social insurance expenses, outstanding taxes and the Company's debts, shall be distributed to shareholders of the Company according to the class of shares held by them and in proportion to their respective shareholdings.

During the liquidation period, the Company shall not commence any new business activities and business activities not relating to the liquidation. The assets of the Company shall not be allocated to the shareholders before conducting settlement of payments in accordance with the preceding Article.

If, after sorting out the Company's assets and preparing a balance sheet and a list of assets in connection with the liquidation of the Company due to its dissolution, the liquidation committee discovers that the Company's assets are insufficient to repay the Company's debts in full, it shall immediately apply to the people's court for a declaration of bankruptcy.

After the Company is declared bankrupt by a ruling of the people's court, the liquidation committee shall hand over all matters arising from the liquidation to the people's court.

Upon completion of the liquidation, the liquidation committee shall prepare a liquidation report, a statement of the income and expenses during the liquidation period and financial accounts, which shall be verified by PRC certified public accountants, and then submit them to a shareholders' general meeting or to the relevant competent authorities for confirmation.

The liquidation committee shall, within thirty days after such confirmation given by the shareholders' general meeting or other relevant competent authorities, submit the aforesaid documents to the company registration authorities and apply for cancelation of registration of the Company, and publish an announcement relating to the termination of the Company.

#### Amendments to the Articles of Association

The Company shall amend the Articles of Association in accordance with the laws, administrative regulations and the requirements of the Articles.

Any amendment to this Articles of Association involving anything set out in the Mandatory Provisions shall become effective upon approval by the company approval department authorized by the State Council and the Securities Commission of the State Council. If there is any change relating to the registered particulars of the Company, application shall be made for the changes in accordance with the laws.

### **Settlement of Disputes**

The Company shall abide by the following principles for settlement of disputes:

any disputes or claims of rights between the holders of the overseas listed foreign shares and the Company, the holders of the overseas listed foreign shares and the Company's directors, supervisors, general manager or other senior management, or the holders of the overseas listed foreign shares and the holders of domestic shares arising from any rights or obligations under the Articles of Association, the Company Law, other relevant laws or administrative regulations or in connection with the affairs of the Company, shall be referred by the relevant parties to arbitration.

Where the aforesaid disputes or claims of rights are referred to arbitration, the entire claims or disputes must be referred to arbitration, and all persons who have a cause of action based on the same facts giving rise to the disputes or claims or whose participation is necessary for the resolution of such disputes or claims, shall, where such person is the Company or a shareholder, director, supervisor, general manager or other senior management of the Company, submit to the arbitration.

Disputes over the definition of shareholders and the register of shareholders need not be resolved by arbitration.

- a claimant may elect arbitration to be carried out at either the China International Economic and Trade Arbitration Commission in accordance with its rules or the Hong Kong International Arbitration Center in accordance with its Securities Arbitration Rules. Once a claimant refers a dispute or a claim to arbitration, the other party must conduct arbitration at the arbitral body elected by the claimant. If a claimant elects arbitration to be carried out at the Hong Kong International Arbitration Center, any party to the dispute or claim may apply for a hearing to take place in Shenzhen in accordance with the Securities Arbitration Rules of the Hong Kong International Arbitration Center.
- 3) if any disputes or claims of rights are settled by way of arbitration in accordance with subparagraph (1) above, the laws of the People's Republic of China (excluding Hong Kong Special Administrative Region, Macao Special Administrative Region and Taiwan) shall apply, save as otherwise provided in laws and administrative regulations.
- 4) the award of an arbitral body shall be final and binding on all parties.

#### 1. FURTHER INFORMATION ABOUT OUR COMPANY

## A. Incorporation

In January 1983, China Isotope Company Limited, our predecessor, was incorporated as a company owned by the whole people in PRC by the Ministry of Nuclear Industry. In December 2007, we underwent a restructuring, and transformed into a limited liability company. In December 2011, our Company was converted to a joint stock company with limited liability.

We have established a place of business in Hong Kong at Level 54, Hopewell Center, 183 Queen's Road East, and has been registered as a non-Hong Kong company in Hong Kong under Part 16 of the Companies Ordinance on May 2, 2017. Ms. Kam Mei Ha, Wendy, has been appointed as our agent for the acceptance of service of process and notices on behalf our Company in Hong Kong.

As our Company was established in the PRC, we are subject to the relevant PRC laws and regulations. A summary of the relevant aspects of PRC laws and regulations and a summary of our Articles of Association is set out in Appendices IV and V to this prospectus, respectively.

## B. Changes in the Share Capital of Our Company

- In December 2007, our Company was restructured into a limited liability company.
- In May 2008, our registered capital was increased from RMB50,000,000 to RMB60,000,000.
- In June 2009, our registered capital was increased to RMB62,800,000.
- In April 2010, our registered capital was increased to RMB74,000,000.
- In May 2011, CNNC transferred its 26.92% and 21.15% equity interests held in China Isotope Company to the CIAE and the NPIC respectively.
- In December 2011, our Company was converted to a joint stock company with its registered capital increased to RMB200,000,000.
- In March 2017, our registered capital was further increased to RMB239,906,100.

Upon completion of the Global Offering, without taking into account any H Shares which may be issued pursuant to the Over-allotment Option, our registered share capital will be increased to RMB319,874,800, comprising 239,906,100 Domestic Shares and 79,968,700 H Shares issued under the Global Offering, representing approximately 75.00% and 25.00% of our enlarged registered capital, respectively.

Save as disclosed above, there has been no alteration in the share capital of our Company since its establishment.

## C. Written Resolutions Passed by Our Shareholders

On March 6, 2017 and March 31, 2017, the Shareholders of our Company passed, among other things, the following resolutions:

(a) the issue by our Company of H Shares of nominal value of RMB1.00 each up to 79,968,700 H Shares in total (without taking into account the H Shares which may be issued upon the exercise of the Over-allotment Option) and subsequent listing of such H Shares on the Stock Exchange;

- (b) the granting of the Over-allotment Option in respect of no more than 15% of the number of H Shares issued as above-mentioned;
- (c) subject to the completion of the Global Offering, the Articles of Association have been approved and adopted, which shall only become effective from the Listing Date and the Board has been authorized to amend the Articles of Association in accordance with any comments from the Stock Exchange and the relevant PRC regulatory authorities; and
- (d) approving the Board to handle all matters relating to, among other things, the issue of H Shares and the listing of H Shares on the Stock Exchange.

## D. Changes in Share Capital of Our Subsidiaries

Our principal subsidiaries (for the purpose of the Listing Rules) as of the date of this prospectus are set out under the financial information in the Accountants' Report as included in Appendix I to this prospectus.

There has been no change in the share capital of any our principal subsidiaries within the two years immediately preceding the date of this prospectus.

#### 2. FURTHER INFORMATION ABOUT OUR BUSINESS

#### A. Summary of Our Material Contracts

We have entered into the following contracts (not being contracts entered into in the ordinary course of business) within two years preceding the date of this prospectus which are or may be material:

- (a) a non-competition and exclusive sales cooperation agreement in respect of radioactive sources, isotope and irradiation business dated August 1, 2016 entered into between the Company and CIAE, pursuant to which CIAE agreed to, among others, provide certain non-competition undertakings in favor of the Company, details of which are set out in "Relationship with the Controlling Shareholder";
- (b) a non-competition and exclusive sales agency agreement in respect of radioactive-source-based instruments, isotope and irradiation business dated August 5, 2016 entered into between the Company and NPIC, pursuant to which NPIC agreed to, among others, provide certain non-competition undertakings in favor of the Company, details of which are set out in "Relationship with the Controlling Shareholder";
- (c) a non-competition and strategic cooperation agreement in terms of irradiation business dated August 12, 2016 entered into between the Company and CIRP, pursuant to which CIRP agreed to, among others, provide certain non-competition undertakings in favor of the Company, details of which are set out in "Relationship with the Controlling Shareholder";
- (d) a non-competition and exclusive sales cooperation agreement in terms of isotope and radioactive sources business dated August 18, 2016 entered into between the Company and 404 Company, pursuant to which 404 Company agreed to, among others, provide certain non-competition undertakings in favor of the Company, details of which are set out in "Relationship with the Controlling Shareholder";

- (e) a non-competition agreement dated August 18, 2016 entered into between the Company and CNEIC, pursuant to which CNEIC agreed to, among others, provide certain non-competition undertakings in favor of the Company, details of which are set out in "Relationship with the Controlling Shareholder";
- (f) a capital contribution agreement in relation to the Company dated December 21, 2016 entered into among the Company, CNNC, CIAE, NPIC, CNNC Fund, 404 Company, Baoyuan Investment, CAIIF and CAIC, pursuant to which CNNC, CIAE, NPIC, CNNC Fund, 404 Company, Baoyuan Investment, CAIIF and CAIC agreed to inject capital and subscribe ordinary shares of the Company for a total consideration of RMB850 million, details of which are set out in "History, Development and Corporate Structure";
- (g) the Non-competition Undertaking dated June 16, 2018 issued by CNNC to our Company, details of which are set out in "Relationship with the Controlling Shareholder";
- (h) a cornerstone investment agreement dated June 19, 2018 entered into among the Company, Sure Advance Holdings Limited (通程控股有限公司), China International Capital Corporation Hong Kong Securities Limited (中國國際金融香港證券有限公司) and CLSA Limited (中信里昂證券有限公司), pursuant to which Sure Advance Holdings Limited agreed to subscribe for 11,906,400 H Shares at the Offer Price, details of which are set out in "Cornerstone Investors";
- (i) a cornerstone investment agreement dated June 19, 2018 entered into among the Pharmaceuticals (HK) Limited Company, Shanghai Investment (上海醫藥(香港) 投資有限公司), China International Capital Corporation Hong Kong Securities Limited (中國國際金融香港證券有限公司) and **CLSA** Limited (中信里昂證券有限公司), pursuant to which Shanghai Pharmaceuticals (HK) Investment Limited agreed to subscribe for 8,006,000 H Shares at the Offer Price, details of which are set out in "Cornerstone Investors";
- (j) a cornerstone investment agreement dated June 19, 2018 entered into among the Company, Beijing Industrial Developing Investment Management Co., Ltd. (北京工業發展投資管理有限公司), China International Capital Corporation Hong Kong Securities Limited (中國國際金融香港證券有限公司) and CLSA Limited (中信里昂證券有限公司), pursuant to which Beijing Industrial Developing Investment Management Co., Ltd. agreed to subscribe for such number of H Shares in the amount of HK dollars equivalent to USD30,000,000 (excluding the brokerage, the SFC transaction levy and the Stock Exchange trading fee payable) at the Offer Price, details of which are set out in "Cornerstone Investors";
- (k) a cornerstone investment agreement dated June 19, 2018 entered into among the Company, China Structural Reform Fund Corporation Limited (中國國有企業結構調整基金股份有限公司), China International Capital Corporation Hong (中國國際金融香港證券有限公司) Securities Limited and **CLSA** Limited (中信里昂證券有限公司), pursuant to which China Structural Reform Fund Corporation Limited agreed to subscribe for such number of H Shares in the amount of HK dollars equivalent to USD30,000,000 (including the brokerage, the SFC transaction levy and the Stock Exchange trading fee payable) at the Offer Price which in any event shall not exceed 15,993,600 H Shares, details of which are set out in "Cornerstone Investors"; and
- (1) the Hong Kong Underwriting Agreement.

## **B.** Our Intellectual Property Rights

## (a) Trademarks

Trademarks in Relation to Our Business

As of the Latest Practicable Date, we had the following trademarks which we consider to be material in relation to our businesses:

S/N	Name of Trademark	Registration number	Owner of the registration	Classification number	Valid duration
1	R				
	0 W	672466	HTA	1	2014.1.7-2024.1.6
2	C				
		671266	HTA	1	2013.12.28-2023.12.27
3	G.	151191	HTA	5	2013.3.1-2023.2.28
4	原子高科	18204424	НТА	1	2016.12.7-2026.12.6
5	原子高科	18204965	НТА	5	2016.12.7-2026.12.6
6	原子高科	18204121	НТА	9	2016.12.7-2026.12.6
7	原子高科	18204670	HTA	10	2016.12.7-2026.12.6
8	原子高科	18203821	НТА	35	2017.2.21-2027.2.20
9	曲庫派特				
	77/10/10/10	5020289	Shanghai Yuanzi Kexing	5	2009.4.28-2019.4.27
10	<b>甩通宁</b>	4529566	Shanghai Yuanzi Kexing	5	2008.6.28-2018.6.27
11	IOC	1468506	Shanghai Yuanzi Kexing	5	2010.11.7-2020.11.6
12	原子科兴	12140335	Shanghai Yuanzi Kexing	35	2014.7.28-2024.7.27
13	原多科兴	12193605	Shanghai Yuanzi Kexing	5	2014.8.7-2024.8.6
14	思通宁				
1.5	***	12140315	Shanghai Yuanzi Kexing	35	2014.7.28-2024.7.27
15	弗唐派特	12140326	Shanghai Yuanzi Kexing	35	2014.7.28-2024.7.27
16	IOC	12139993	Shanghai Yuanzi Kexing	35	2014.7.28-2024.7.27
17	ORET	3324897	CNGT	5	2014.6.21-2024.6.20
18					
		3739982	CNGT	5	2016.6.7-2026.6.6
19	isotope 希典	3739983	CNGT	5	2016.3.21-2026.3.20
20	通的				
21	*	5130227	CNGT	5	2009.6.7-2019.6.6
21		1455708	BNIBT	35	2010.10.7-2020.10.6
22		1472571	BNIBT	5	2010.11.14-2020.11.13

# APPENDIX VI

# STATUTORY AND GENERAL INFORMATION

S/N	Name of Trademark	Registration number	Owner of the registration	Classification number	Valid duration
23	River	4117904	BNIBT	5	2017.3.28-2027.3.27
24	CICLAR	5969176	CIC Lab	44	2010.3.7-2020.3.6
25	€ 藤得威 HFADWAY	6448105	Headway	10	2010.3.7-2020.3.6
26	€C°	1480629	Headway	5	2010.11.28-2020.11.27
27	<b>€C</b> °	1523320	Headway	10	2011.2.14-2021.2.13
28	4	1327108	Anhui Young-Hearty	10	2009.10.21-2019.10.20

# The Trademarks Involved in the Trademark License Agreement

S/N	Name of Trademarks	Registration number	Owner of the registration	Classification number
1	中核集团	303912886	CNNC, the Company	1,4,5,6,7,9,10,11,16,35,36,39,40,42,44
2	ENNE	202012050	Chinical C	1 4 5 4 7 0 10 11 14 25 24 20 40 42 44
3	K:X	303912859	CNNC, the Company	1,4,5,6,7,9,10,11,16,35,36,39,40,42,44
		303912877	CNNC, the Company	1,4,5,6,7,9,10,11,16,35,36,39,40,42,44

## (b) Patents

As of the Latest Practicable Date, we had the following patents in the PRC which we consider to be material in relation to our businesses:

S/N	Patent No.	Name of patent	Patentee	Patent type	Date of application	Date of authorization
1	200810085016.1	Components of heavy water reactor cobalt	Shanghai Nuclear Engineering Research and Design Institute, issuer	Invention	2008.3.13	2011.3.2
2	201020243252.4	Cobalt-source transport container	China Nuclear Power Engineering Co., Ltd, issuer, Dalian Tianrui Electrical and Mechanical Equipment Co., Ltd.	Utility model	2010.6.30	2011.6.22
3	200820005378.0	A neutron source rod loading bucket type protective device.	Nuclear Power Qinshan Joint Venture Co., Ltd, issuer, NPIC	Utility model	2008.3.13	2008.12.17
4	201620744686.X	Automated Radioactivity Activity Measurement Device	HTA	Utility model	2016.7.14	2016.12.14
5	201620744688.9	Semi-automatic the aluminum cap of penicillin bottle opening device	HTA	Utility model	2016.7.14	2016.12.14
6	201310228023.3	A type of scan mobile device for tower fault detection	HTA	Invention	2013.6.8	2016.2.3

S/N	Patent No.	Name of patent	Patentee	Patent type	Date of application	Date of authorization
7	201310750963.9	A type of radioactive particle chain	НТА	Invention	2013.12.31	2016.1.20
8	201110332635.8	85Kr source preparation and recovery process	HTA	Invention	2011.10.28	2015.12.9
9	201210166875.X	A type of Chromatographic column device use for generator	HTA	Invention	2012.5.28	2015.12.9
10	201310663321.5	A type of source core carrier of radioactive particle and its preparation process	HTA	Invention	2013.12.10	2015.9.23
11	201310228027.1	A type of crude oil samples for oilfield interwell tracer technique taking 19 samples of devices	HTA	Invention	2013.6.8	2015.8.5
12	201210560551.4	A type of irradiated crumb rubber modified asphalt and Its preparation method	HTA	Invention	2012.12.21	2015.4.8
13	201110193303.6	A radioactive labeled laminating ceramic proppant and its preparation method	НТА	Invention	2011.7.12	2013.8.14
14	201110200074.6	A type of method for preparing radioactive 68Ge solution	НТА	Invention	2011.7.18	2013.8.14
15	201110106810.1	A type of determination of thyroid-stimulating hormone for long optical path enzyme-linked immunoassay and kits.	НТА	Invention	2011.4.27	2012.11.28
16	201010104697.9	A type of 68Ge line source for attenuation correction of PET preparation process	HTA	Invention	2010.2.3	2012.7.25
17	201010104700.7	Palladium-103 and iodine-125 composite brachytherapy source, source cores and it's preparation method	НТА	Invention	2010.2.3	2012.3.7
18	201010212968.2	103Pd brachytherapy source cores preparation technology	НТА	Invention	2010.6.30	2011.12.7
19	200610076777.1	Neutron spectrum well logging system	HTA	Invention	2006.4.20	2009.10.21
20	201410323377.0	A type of composited nuclide radioactive Stent and its preparation method	НТА	Invention	2014.7.8	2016.8.17
21	201410323239.2	A type of radioactive Stent and its preparation method	НТА	Invention	2014.7.8	2016.6.8
22	201310750640.X	A type of method for preparing radioactive particle chains	НТА	Invention	2013.12.31	2016.8.17
23	201310228008.9	A type of water sample extraction device used for oilfield interwell tracer technique	НТА	Invention	2013.6.8	2016.9.14
24	201520465395.2	Iodine 131 diagnostic capsule sorting Packaging table	НТА	Utility model	2015.7.1	2015.11.18
25	201520484572.1	A type of foam packing box	HTA	Utility model	2015.7.7	2015.11.18
26	201520399456.X	A type of agitator	HTA	Utility model	2015.6.11	2015.10.14
27	201520465407.1	Iodine 131 diagnostic capsule activity measuring instrument	НТА	Utility model	2015.7.1	2015.10.14
28	201420458727.X	A type of reaction bulb	HTA	Utility model	2014.8.14	2014.12.10
29	201320331135.7	A type of isotope tracer injection device used for oilfield inter-fell tracer technique	НТА	Utility model	2013.6.8	2014.1.22
30	201320330728.1	A type of water sample extraction device used for oilfield interwell tracer technique	НТА	Utility model	2013.6.8	2014.1.8
31	201320276359.2	Line type germanium 68 calibration source pot-type equipment.	НТА	Utility model	2013.5.20	2013.12.18
32	201320276361.X	Line type germanium 68 calibration Source scanner and detector	HTA	Utility model	2013.5.20	2013.11.13
33	201120331593.1	A type of nuclear reactors is used to store a transport container with primary neutron source	HTA	Utility model	2011.9.6	2012.5.30
34	201120292446.8	vehicle Radiation Source monitoring and guard system	HTA	Utility model	2011.8.12	2012.5.23
35	201120243652.X	Radioactive tagged sand injection equipment	HTA	Utility model	2011.7.12	2012.4.25

S/N	Patent No.	Name of patent	Patentee	Patent type	Date of application	Date of authorization
36	201020109401.8	Isotopic tracer wellhead plug-in injection equipment	HTA	Utility model	2010.2.8	2010.10.6
37	200710039985.9	Benzothiazole aniline Compounds and its preparation method and application.	Shanghai Yuanzi Kexing	Invention	2007.4.25	2010.12.15
38	200710103614.2	A type of 18F fluorine labeled purine compounds and its preparation method and application.	Shanghai Yuanzi Kexing	Invention	2007.4.28	2009.7.1
39	201110224661.9	Composite of 1,4 trans-disubstituted triazole structure of 188Re(CO) <sub>3</sub> labeled compounds	Shanghai Yuanzi Kexing	Invention	2011.8.5	2014.12.10
40	201110224721.7	A type of preparation method comprises 1,4- trans-disubstituted triazole structure of 18F labeled compounds	Shanghai Yuanzi Kexing	Invention	2011.8.5	2014.7.30
41	201110226095.5	A type of improvement of cyclotron ion source system	Shanghai Yuanzi Kexing	Invention	2011.8.8	2015.10.28
42	201110226236.3	A type of grooved radiopharmaceutical charging box	Shanghai Yuanzi Kexing	Invention	2011.8.9	2015.5.13
43	201110228912.0	A type of cyclotron target in-house simulation target system	Shanghai Yuanzi Kexing	Invention	2011.8.10	2016.1.13
44	201110228976.0	A type of Automatic split charging method for radiopharmaceutical.	Shanghai Yuanzi Kexing	Invention	2011.8.10	2015.2.11
45	201120282295.8	A type of measuring device of radioactive contamination.	Shanghai Yuanzi Kexing	Utility model	2011.8.4	2012.5.9
46	201120282310.9	A type of absorption equipment for parallel activated carbon	Shanghai Yuanzi Kexing	Utility model	2011.8.4	2012.5.9
47	201120286194.8	A type of improved Ion Source system used in the cyclotron	Shanghai Yuanzi Kexing	Utility model	2011.8.8	2012.2.22
48	201120286312.5	Safe and reliable amplifier high-voltage power source	Shanghai Yuanzi Kexing	Utility model	2011.8.9	2012.4.11
49	201120286353.4	A type of split charging box used for radiopharmaceutical	Shanghai Yuanzi Kexing	Utility model	2011.8.9	2012.5.9
50	201120286577.5	Thermoluminescence measuring device	Shanghai Yuanzi Kexing	Utility model	2011.8.9	2012.10.10
51	201120286598.7	A type of system used for a new type boiling of drug equipment	Shanghai Yuanzi Kexing	Utility model	2011.8.9	2012.5.23
52	201120289729.7	A type of system used for production of radiopharmaceutical simulated target	Shanghai Yuanzi Kexing	Utility model	2011.8.10	2012.5.9
53	201120291864.5	A type of clean bench	Shanghai Yuanzi Kexing	Utility model	2011.8.11	2012.5.23
54	201210398580.5	A type of cyclotron beam current measuring device	Shanghai Yuanzi Kexing	Invention	2012.10.18	2016.6.8
55	201310106821.9	The RGD lipid peptides PET of Targeting integrin $\alpha \ \nu \ \beta \ 3$ imaging agents	Shanghai Yuanzi Kexing	Invention	2013.3.28	2015.10.28
56	201410002006.2	A type of high pressure steam sterilization equipment.	Shanghai Yuanzi Kexing	Invention	2014.1.2	2016.6.8
57	201410002009.6	Prepared long-term effective method for technetium 99mTc Methylene diphosphonate injection drug	Shanghai Yuanzi Kexing	Invention	2014.1.2	2015.10.28
58	201410205820.4	A type of FDG target system	Shanghai Yuanzi Kexing	Invention	2014.5.15	2016.4.6
59	201420002517.X	A type of electron tube cooling water connection	Shanghai Yuanzi Kexing	Utility model	2014.1.2	2014.7.2
60	201420002569.7	A type of protective device in the course of technetium drug labeling	Shanghai Yuanzi Kexing	Utility model	2014.1.2	2014.7.2
61	201420231205.6	A type of radiation protective device used for fume hood	Shanghai Yuanzi Kexing	Utility model	2014.5.7	2014.10.15
62	201420231666.3	A type of supper clean equipment for decompression condition	Shanghai Yuanzi Kexing	Utility model	2014.5.7	2014.10.15

S/N	Patent No.	Name of patent	Patentee	Patent type	Date of application	Date of authorization
63	201520310910.X	A type of improved 18F-NaF automatic synthesis module	Shanghai Yuanzi Kexing	Utility model	2015.5.14	2015.12.9
64	201520319998.1	A type of improved technetium drug Administering medications channel	Shanghai Yuanzi Kexing	Utility model	2015.5.18	2015.10.7
65	201520320013.7	A type of improved deflection beam current measurement system	Shanghai Yuanzi Kexing	Utility model	2015.5.18	2015.9.23
66	201520945162.2	A type of anti-radiation protective lead-glass equipment	Shanghai Yuanzi Kexing	Utility model	2015.11.24	2016.4.20
67	201520945187.2	A type of institution used for protection lead jar onlays to slip	Shanghai Yuanzi Kexing	Utility model	2015.11.24	2016.4.20
68	201520956259.3	A type of radiometric isotope drug Loading system	Shanghai Yuanzi Kexing	Utility model	2015.11.26	2016.4.27
69	201520956636.3	A type of distillation equipment used for radiopharmaceutical isolation and purification	Shanghai Yuanzi Kexing	Utility model	2015.11.26	2016.4.27
70	201520956639.7	A separation column used for purification and copper removal	Shanghai Yuanzi Kexing	Utility model	2015.11.26	2016.4.27
71	201520956651.8	A separation column used for 18F-FDG purification	Shanghai Yuanzi Kexing	Utility model	2015.11.26	2016.4.27
72	201520962222.1	A of radiometric isotope drug Loading system	Shanghai Yuanzi Kexing, Shanghai Rutian Packing Equipment Co., Ltd	Utility model	2015.11.26	2016.6.29
73	201620767263.X	A tube vacuum cleaning device	HTA (Guangzhou)	Utility model	2016.7.19	2017.1.11
74	201620767438.7	A radiation protection isolation wall	HTA (Guangzhou)	Utility model	2016.7.19	2016.12.14
75	201620767464.X	A lead protective body	HTA (Guangzhou)	Utility model	2016.7.19	2016.12.14
76	201620770123.8	A transfer mechanism for radioactive reagent	HTA (Guangzhou)	Utility model	2016.7.19	2016.12.14
77	201620767460.1	A radioactive reagent delivery channel	HTA (Guangzhou)	Utility model	2016.7.19	2016.12.14
78	201420552852.7	An omnibearing disguised item transfer window	HTA (Guangzhou)	Utility model	2014.9.24	2015.3.4
79	201420552733.1	A delivery channel equipped with optional air shower head	HTA (Guangzhou)	Utility model	2014.9.24	2015.3.4
80	201420575877.9	Portable radioactive isotope transport case	HTA (Guangzhou)	Utility model	2014.9.30	2015.3.4
81	201420576188.X	Radionuclide work console	HTA (Guangzhou)	Utility model	2014.9.30	2015.3.4
82	201420552646.6	A storage tube for radioactive reagents	HTA (Guangzhou)	Utility model	2014.9.24	2015.3.4
83	201420576294.8	Radioactive isotope product transport cart	HTA (Guangzhou)	Utility model	2014.9.30	2015.3.4
84	201420575644.9	New radioactive isotope multi-batch operation waste storage box	HTA (Guangzhou)	Utility model	2014.9.30	2015.3.4
85	201420575863.7	Efficient radioactive isotope labeling reaction boiling water bath container	HTA (Guangzhou)	Utility model	2014.9.30	2015.1.28
86	201420575651.9	Ultra-clean radiation shielding fume hood	HTA (Guangzhou)	Utility model	2014.9.30	2015.1.28
87	201310119972.8	A method for the determination of radioactive chemical purity of a technetium 99mTc pentetate acid salt injection	HTA (Guangzhou)	Invention	2013.4.9	2014.6.4
88	201020685386.1	Radiation source braiding hydraulic shearing device	CNGT	Utility model	2010.12.28	2011.9.21

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89	201020617329.X	Radiation source braiding hydraulic connection device	CNGT	Utility model		2011.8.24
90	201020617287.X	$\gamma$ knife source loading basket	CNGT	Utility model	2010 11 19	2011.8.24
91	201020617564.7	Cobalt particle collection device	CNGT	Utility model		2011.8.24
92	201020617316.2	γ knife radiation source transport container	CNGT	Utility model		2011.7.20
93	201020617304.X	Xenon target used for nuclear reactor irradiation to produce iodine-125	CNGT	Utility model		2011.7.20
94	201020685468.6	Medical radioactive source sub packaging scanning detection device	CNGT	Utility model	2010.12.28	2011.8.24
95	201020685373.4	Radiation seed source vacuum suction device	CNGT	Utility model	2010.12.28	2011.10.05
96	201220299567.X	Low radioactivity cobalt-60 rod material source	CNGT	Utility model	2012.6.26	2013.2.20
97	201220299408.X	New type after-loading cobalt-60 $^{\gamma}$ source for therapy	CNGT	Utility model	2012.6.26	2013.1.16
98	201230277751.X	Packing-case (strontium chloride [89Sr] injection)	CNGT	Appearance design	2012.6.27	2012.10.31
99	201420838744.6	Cobalt-60 radioactive source for gamma knife radiotherapy systems	CNGT	Utility model	2014.12.25	2015.4.08
100	201420453554.2	A quick collection device for high concentration radioactive solutions	CNGT	Utility model	2014.8.12	2014.12.03
101	201320574040.8	Vacuum bottle batch preparation device	CNGT	Utility model	2013.9.16	2014.2.12
102	200810182829.2	Beta particle hemorrhoid treatment instrument	BNIBT	Invention	2008.12.10	2012.1.25
103	201210153802.7	Method for isolating I-type procollagen amino- terminal peptide	BNIBT	Invention	2012.5.18	2014.6.25
104	201210054083.3	Purified antibody with immunoaffinity precipitation method	BNIBT	Invention	2012.3.5	2015.5.20
105	201210125220.8	Chemiluminescence quantitative detection kit for Hyaluronic acid with one-step method	BNIBT	Invention	2012.4.26	2014.12.10
106	201210125222.7	A kit for rapid detection of hepatitis A virus IgM antibody and its preparation method	BNIBT	Invention	2012.4.26	2015.2.4
107	201210153804.6	A method for preparing solid phase antibodies for immunoassay	BNIBT	Invention	2012.5.18	2015.9.16
108	201110332420.6	Cleaning machine for automatic cleaning of the radiographic analysis tube or coated pearl	BNIBT	Invention	2011.10.27	2013.11.13
109	201320641744.2	Low-energy photonic skin applicator	BNIBT	Utility model	2013.10.18	2016.4.6
110	201420852731.4	Flexible iodine-125 low energy photonic skin applicator	BNIBT	Utility model	2014.12.30	2015.11.25
111	200610062711.7	Non-toxic environmental scintillation solution	Headway	Invention	2006.9.20	2010.8.25
112	200810065667.4	A device for collecting carbon dioxide gas	Headway	Invention	2008.1.25	2011.12.14
113	200920133915.4	Medical bottle opener	Headway	Utility model	2009.7.15	2010.4.21
114	201310110152.2	A gas sampling bag and its manufacturing method	Headway	Invention	2013.3.29	2016.1.20
115	201020271083.5	Helicobacter pylori 14C detection device	Headway	Utility model	2010.7.26	2011.6.1
116	201010232783.8	Urea 14C capsules and the micro scale sub package methods	Headway	Invention	2010.7.21	2013.1.30
117	201010236770.8	A gas sampling bag for breath test	Headway	Invention	2010.7.26	2013.4.4
118	201020271002.1	A gas sampling bag for breath test	Headway	Utility model	2010.7.26	2011.6.22
119	201030253662.2	Gas sampling bag	Headway	Appearance design	2010.7.26	2011.4.13
120	201020613085.8	A gas sampling bag for breath test	Headway	Utility model	2010.11.18	2011.6.22
121	201030619718.1	Gas sampling bag	Headway	Appearance design	2010.11.18	2011.5.4

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122	201320156351.2	A gas sampling bag	Headway	Utility model	2013.3.29	2013.10.30
123	201520660944.1	A portable sphygmomanometer	Anhui Young-Hearty	Utility model	2015.8.27	2016.12.21
124	201521089266.4	A new type vacuum blood collection tube	Anhui Young-Hearty	Utility model	2015.12.23	2016.12.21
125	201520660573.7	An integrated portable blood glucose meter	Anhui Young-Hearty	Utility model	2015.8.27	2016.12.14
126	201510145328.7	Cartridge Detector with automatic sampling device	Anhui Young-Hearty	Invention	2015.3.27	2016.10.19
127	201521083330.8	An infusion tube	Anhui Young-Hearty	Utility model	2015.12.22	2016.9.14
128	201520953871.5	A medical use portable LED light	Anhui Young-Hearty	Utility model	2015.11.25	2016.8.10
129	201521089255.6	A medical infusion stand	Anhui Young-Hearty	Utility model	2015.12.23	2016.8.10
130	201521089259.4	A medical device holding device	Anhui Young-Hearty	Utility model	2015.12.23	2016.6.1
131	201521076563.5	A new type illuminable tooth extraction pliers	Anhui Young-Hearty	Utility model	2015.12.21	2016.6.1
132	201521078504.1	A thermometer	Anhui Young-Hearty	Utility model	2015.12.22	2016.6.1
133	201520949909.1	A shell of a wearable electronic device wore on the wrist	Anhui Young-Hearty	Utility model	2015.11.24	2016.5.4
134	201520963132.4	A multi-function drip rack	Anhui Young-Hearty	Utility model	2015.11.25	2016.5.4
135	201520948850.4	A wearable Internet of things device for pregnant women's guarding and alarming	Anhui Young-Hearty	Utility model	2015.11.24	2016.5.4
136	201520953873.4	An antiseptic Helicobacter pylori detector	Anhui Young-Hearty	Utility model	2015.11.25	2016.5.4
137	201020160220.8	Fiber optic adapter	Anhui Young-Hearty	Utility model	2010.3.20	2011.1.5
138	201020177384.1	Optical fiber connector:	Anhui Young-Hearty	Utility model	2010.4.5	2011.3.29
139	201020267398.2	Breath sampling bag	Anhui Young-Hearty	Utility model	2010.7.17	2011.2.2
140	201320033037.5	Breath sampling device	Anhui Young-Hearty	Utility model	2013.1.11	2013.8.14
141	201320539099.3	A portable breath card detector	Anhui Young-Hearty	Utility model	2013.8.30	2014.3.19
142	201320539055.0	A smoke removal device of laser cutting machine	Anhui Young-Hearty	Utility model	2013.8.30	2014.3.19
143	201320539052.7	An exhalation card storage device	Anhui Young-Hearty	Utility model	2013.8.30	2014.3.19
144	201320539053.1	A turntable slot stand	Anhui Young-Hearty	Utility model	2013.8.30	2014.3.19
145	201320539104.0	A breath card stacking device	Anhui Young-Hearty	Utility model	2013.8.30	2014.3.19
146	201320539098.9	A cloth feeding stand	Anhui Young-Hearty	Utility model	2013.8.30	2014.3.19
147	201320539042.3	A Cylindrical device for carbon XIII Infrared Spectrometer	Anhui Young-Hearty	Utility model	2013.8.30	2014.3.19
148	201320539041.9	A Y-type three-way component	Anhui Young-Hearty	Utility model	2013.8.30	2014.3.19
149	201320539066.9	A drying system for air dry oven	Anhui Young-Hearty	Utility model	2013.8.30	2014.3.19
150	201320539070.5	A filter device for air conditioner	Anhui Young-Hearty	Utility model	2013.8.30	2014.3.19
151	201320539103.6	A filter device for air conditioner	Anhui Young-Hearty	Utility model	2013.8.30	2014.3.19
152	201320539100.2	An improved air dry oven drying system	Anhui Young-Hearty	Utility model	2013.8.30	2014.3.19
153	201320539097.4	A baking system for air dry oven	Anhui Young-Hearty	Utility model	2013.8.30	2014.3.19
154	201320539102.1	A new type of water removal system	Anhui Young-Hearty	Utility model	2013.8.30	2014.3.19
155	201320539101.7	A unwatering system for air dry oven	Anhui Young-Hearty	Utility model	2013.8.30	2014.3.19
156	201320539068.8	A host surface of the carbon XIII infrared spectrometer	Anhui Young-Hearty	Utility model	2013.8.30	2014.3.19
157	201320539043.8	A dual channel detector	Anhui Young-Hearty	Utility model	2013.8.30	2014.3.19
158	201320539044.2	A breath card detector	Anhui Young-Hearty	Utility model	2013.8.30	2014.3.19
159	201320539096.X	A dehumidification circulation system for air dry oven	Anhui Young-Hearty	Utility model	2013.8.30	2014.6.25
160	201420738488.3	A small oxygen supply device	Anhui Young-Hearty	Utility model	2014.11.27	2015.4.29
161	201420731514.X	A breathing machine Humidifying device	Anhui Young-Hearty	Utility model	2014.11.27	2015.8.5
162	201520185898.4	Infrared spectrometer	Anhui Young-Hearty	Utility model	2015.3.27	2015.8.5

S/N	Patent No.	Name of patent	Patentee	Patent type	Date of application	Date of authorization
163	201520185984.5	Solid scintillation vials	Anhui Young-Hearty	Utility model	2015.3.27	2015.8.5
164	201520185939.X	Liquid scintillation detector with automated injection device	Anhui Young-Hearty	Utility model	2015.3.27	2015.11.4
165	201520185889.5	Liquid scintillation counter	Anhui Young-Hearty	Utility model	2015.3.27	2016.3.30
166	201520656820.6	A medicine storage box	Anhui Young-Hearty	Utility model	2015.8.27	2016.1.20
167	201520656685.5	A traditional Chinese medicine mashing device	Anhui Young-Hearty	Utility model	2015.8.27	2016.4.6
168	201520865944.5	A three-card type helicobacter pylori detector	Anhui Young-Hearty	Utility model	2015.10.31	2016.4.13
169	201520865943.0	A medical instrument rack	Anhui Young-Hearty	Utility model	2015.10.31	2016.4.13
170	201520922296.2	An infusion drips device	Anhui Young-Hearty	Utility model	2015.11.17	2016.4.13
171	201520933620.0	A care pallet security device	Anhui Young-Hearty	Utility model	2015.11.19	2016.4.13
172	201520949937.3	A wearable electronic device wore on the wrist	Anhui Young-Hearty	Utility model	2015.11.24	2016.4.13
173	201620501206.7	High sensitivity personal dose alarm	BINE	Utility model	2016.5.27	2016.12.14
174	201620501267.3	A new type of measurement data acquisition and detection system	BINE, Shanghai JPY Ion Tech Co., Ltd.	Utility model	2016.5.27	2016.12.14
175	201620501340.7	A source rack operation indicator bit signal device	BINE, Shanghai JPY Ion Tech Co., Ltd.	Utility model	2016.5.27	2016.12.14
176	201020102390.0	Single Channel Six-way source New $\gamma$ Irradiation Device	BINE, Tianjin JPY Ion Tech Co., Ltd.	Utility model	2010.1.27	2010.12.8
177	201120131769.9	A new type of radiation resistant lens	BINE	Utility model	2011.4.29	2011.11.9
178	201120132751.0	A new type of $ \varUpsilon $ -irradiation mobile monitoring device	BINE, Tianjin JPY Ion Tech Co., Ltd.	Utility model	2011.4.29	2011.12.28
179	201120132823.1	A new type of irradiation door anti-opening device	BINE	Utility model	2011.4.29	2011.12.28
180	201120132845.8	A multi-task monitoring system for irradiation devices	BINE, Tianjin JPY Ion Tech Co., Ltd.	Utility model	2011.4.29	2011.11.9
181	201220322829.X	A source frame anti-collision device	BINE	Utility model	2012.7.4	2013.5.1
182	201220332915.9	A photoelectric switch inspection and verification device	BINE	Utility model	2012.7.10	2013.7.10
183	201220333365.2	A irradiation box door detection device	BINE	Utility model	2012.7.10	2013.5.1
184	201320675397.5	A long rod tool socket type coupling mechanism	BINE, Zhongjin Irradiation (Wuhan) Incorporated Company	Utility model	2013.10.29	2014.5.7
185	201120132080.8	An irradiation device spray system	BINE, Tianjin JPY Ion Tech Co., Ltd.	Utility model	2011.4.29	2011.12.28
186	201120132824.6	A new type irradiation product test device	BINE	Utility model	2011.4.29	2011.11.9
187	201220323115.0	A new type irradiation device electric push tank mechanism	BINE	Utility model	2012.7.4	2013.5.22
188	201320671861.3	Multi-detector enhanced chain-type dose detector	BINE, Tianjin JPY Ion Tech Co., Ltd., Zhongjin Irradiation (Wuhan) Incorporated Company	Utility model	2013.10.29	2014.05.07
189	201320687833.0	A new type of irradiation box removal trolley assembly	BINE	Utility model	2013.11.4	2014.5.7
190	201320688911.9	A smoke detection interlocking mechanism	BINE	Utility model	2013.11.4	2014.5.7
191	201110163609.7	A copolymer of polyurethane elastomer and hydrophilic compound and its preparation method	Sichuan Institute of Atomic Energy, Suzhou Radiation	Invention	2011.6.17	2012.11.28
192	201620271047.6	[18F]Sodium fluoride preparation device	HTA	Utility model	2016.4.1	2017.3.22
193	201510317469.2	A micro-emulsion polymerization method for preparing radioactive sources	НТА	Invention	2015.6.11	2017.9.12

S/N	Patent No.	Name of patent	Patentee	Patent type	Date of application	Date of authorization
194	201621237984.6	A welder feed device	HTA	Utility model	2016.11.18	2017.6.20
195	201720004480.8	Clamping device with adjustable clamping force	Yuanzi Gaoke Co., Ltd.	Utility model	2017.1.4	2017.8.8
196	201621244412.0	A radioactive isotope generator chromatographic column holder device	Yuanzi Gaoke Co., Ltd.	Utility model	2016.11.18	2017.8.8
197	201630561844.3	Radioisotope generator protection container	Yuanzi Gaoke Co., Ltd.	Appearance	2016.11.19	2017.6.20
198	201621004936.2	A liquid nitrogen device for gamma spectrometer	Shanghai Yuanzi Kexing	Utility model	2016.8.30	2017.3.22
199	201621013395.X	A radioactive chemical purity chromatography cartridge	Shanghai Yuanzi Kexing	Utility model	2016.8.30	2017.3.22
200	201621012791.0	A Cyclone 30 accelerator electrostatic deflection plate electrode mounting device	Shanghai Yuanzi Kexing	Utility model	2016.8.30	2017.4.12
201	201510245345.8	Sulfonamides targeted to carbonic anhydrase IX, intermediates, preparation and application	Shanghai Yuanzi Kexing	Invention	2015.5.14	2017.10.17
202	201720422077.7	A breath detection air bag vacuum machine	Headway	Utility model	2017.4.20	2017.11.24
203	201730115057.0	Ionization helicobacter pylori tester (HP)	Headway	Appearance design	2017.4.10	2017.9.12
204	201730115059.X	Ionization helicobacter pylori tester (HP)	Headway	Appearance design	2017.4.10	2017.9.12
205	201720360773.X	A liquid flashed helicobacter pylori tester	Headway	Utility model	2017.4.7	2017.12.19
206	201620499313.0	A new type of differential roller head or tail wheel assembly transmission light wheel components	BINE, Shanghai JPY Ion Tech Co., Ltd.	Utility model	2016.5.27	2017.10.10
207	200510125983.2	A method for producing a natural rubber latex with low soluble protein content	Suzhou Radiation	Invention	2005.12.1	2008.7.2

# (c) Software copyright

As of the Latest Practicable Date, the Group had the following soft copyrights which we consider to be material in relation to our businesses:

S/N	Name of copyright	Owners of copyright	Date of development completion	First publication date	Registration No.	Acquiring method of the right	Scope of right
1	Yuanzi Hi-Tech Integrated Drug Management Software V1.0	HTA	2010.8.9	2010.8.9	2011SR075477	Original acquisition	All rights
2	Yuanzi Hi-Tech materials storage and retrieval management information software V1.0	НТА	2010.2.25	2010.2.25	2011SR075476	Original acquisition	All rights
3	Yuanzi Hi-Tech aggregate albumin injection reaction conditions fine control software V1.0	НТА	2009.11.7	2009.11.7	2011SR075609	Original acquisition	All rights
4	Yuanzi Hi-Tech injection weight fine control software V1.0	HTA	2010.5.10	2010.5.10	2011SR075607	Original acquisition	All rights
5	Yuanzi Hi-Tech Pharmaceutical Control Software V1.0	HTA	2009.7.8	2009.7.8	2011SR076657	Original acquisition	All rights
6	Yuanzi Hi-Tech liquid production temperature control software V1.0	HTA	2009.5.15	2009.5.15	2011SR077063	Original acquisition	All rights
7	Headway breath test instrument control software V1.0.0	Headway	2014.12.29	Unpublished	2015SR151569	Original acquisition	All rights
8	Headway helicobacter pylori tester (card) control software V1.0.0	Headway	2013.12.31	Unpublished	2015SR151565	Original acquisition	All rights
9	Headway helicobacter pylori tester (Liquid flash) control software V1.0.0	Headway	2013.12.31	Unpublished	2015SR151563	Original acquisition	All rights

S/N	Name of copyright	Owners of copyright	Date of development completion	First publication date	Registration No.	Acquiring method of the right	Scope of right
10	Yanghe helicobacter pylori detector control software V1.0	Anhui Young- Hearty	_	2006.4.20	2007SR15190	Original acquisition	All rights
11	Yanghe YH630 semiconductor laser treatment system V2.0	Anhui Young- Hearty	_	2008.6.2	2008SR17538	Original acquisition	All rights
12	Yanghe 13C infrared spectrometer control software V1.0	Anhui Young- Hearty	2010.8.11	2010.8.11	2010SR057979	Original acquisition	All rights
13	Yanghe YH04E type helicobacter pylori detector control software V1.0	Anhui Young- Hearty	2011.8.1	Unpublished	2011SR077679	Original acquisition	All rights
14	Yanghe 14C liquid scintillation counter control software V1.0	Anhui Young- Hearty	2013.3.1	2013.6.17	2013SR139208	Original acquisition	All rights
15	Yanghe YH08A type 13C infrared spectrometer control software V1.0.0	Anhui Young- Hearty	2013.2.1	2013.6.13	2016SR026701	Original acquisition	All rights
16	Irradiation device radioactive source arrangement software	BINE	2012.5.27	2012.5.27	2013SR094851	Original acquisition	All rights
17	BFT gamma irradiation device control system	BINE	2012.3.3	Unpublished	2012SR091612	Original acquisition	All rights
18	Yanghe YH04AS type automatic sampling helicobacter pylori tester control software with card V1.0.0	Anhui Young- Hearty	2016.8.23	2016.11.25	2017SR115329	Original acquisition	All rights
19	Yanghe YH01AS type automatic sampling liquid scintillation counter control software V1.0.0	Anhui Young- Hearty	2013.11.1	2013.12.4	2017SR115750	Original acquisition	All rights
20	Zhongtong Lanbo microorganism metabolism element information management system V1.0	CIC Lab	2016.11.15	2017.2.23	2017SR242290	Original acquisition	All rights
21	Zhongtong Lanbo lab S1S management information system V1.0	CIC Lab	2017.1.12	2017.2.22	2017SR242355	Original acquisition	All rights
22	Zhongtong Lanbo medical information survey, analysis and management software V1.0	CIC Lab	2016.9.21	2016.10.18	2017SR242419	Original acquisition	All rights
23	Zhongtong Lanbo microorganism multiple testing management and control software V1.0	CIC Lab	2016.8.26	2016.9.29	2017SR239593	Original acquisition	All rights
24	Zhongtong Lanbo gene diagnosis data analysis software V1.0	CIC Lab	2016.4.14	2016.7.19	2017SR239565	Original acquisition	All rights
25	Zhongtong Lanbo microorganism sampling, testing and analysis software V1.0	CIC Lab	2016.10.10	2016.11.22	2017SR239675	Original acquisition	All rights

# 3. FURTHER INFORMATION ABOUT OUR DIRECTORS AND SUPERVISORS

## A. Particulars of Directors' and Supervisors' Contracts

Each of the executive Directors, non-executive Directors and independent non-executive Directors has entered into a service contract with our Company on June 16, 2018. These contracts contained the following contents (i) each contract is for a term of three years commencing from the Listing Date, and (ii) the contracts may be terminated by respective terms. The service contracts may be renewed in accordance with the Articles of Association and applicable laws, rules and regulations.

Pursuant to Rules 19A.54 and 19A.55 of the Listing Rules, we have entered into a contract with each of our Supervisors in respect of, among other things, (i) compliance of relevant laws and regulations, (ii) observations of the Articles of Association, and (iii) provisions on arbitration on June 16, 2018.

Save as disclosed above, none of our Directors or Supervisors has entered or has proposed to enter into any service agreements with our Company or any member of our Group (other than contracts expiring or determinable by the employer within one year without payment of compensation other than statutory compensation).

### B. Directors' and Supervisors' Remuneration

In 2015, 2016 and 2017, the aggregate amount of fees, salaries, allowances, discretionary bonus, pension schemes contributions and other benefits in kind (if applicable) paid by our Company to our Directors were approximately RMB677,000, RMB210,000 and RMB2,150,000, respectively.

In 2015, 2016 and 2017, the aggregate amount of fees, salaries, allowances, discretionary bonus, pension schemes contributions and other benefits in kind (if applicable) paid by our Company to our Supervisors were approximately RMB1,271,000, RMB1,285,000 and RMB1,178,000, respectively.

Save as disclosed under Note 9 to the financial information in the Accountants' Report set out in Appendix I, no Director or Supervisor received other remuneration or benefits in kind from our Company in respect of the Track Record Period.

In accordance with the existing arrangements, the aggregate remuneration payable by our Company to our Directors and Supervisors for the year ending December 31, 2018 is approximately RMB300,000 and RMB1,094,885, respectively.

There is no arrangement under which any Director or Supervisors has waived or agreed to waive any remuneration or benefits in kind during the Track Record Period.

#### 4. DISCLOSURE OF INTERESTS

#### A. Disclosure of Interests of Directors and Supervisors

Immediately following the completion of the Global Offering and assuming the Over-allotment Option is not exercised, none of our Directors, Supervisors and chief executive of our Company has any interest and/or short position in the shares, underlying shares and debentures of our Company or any associated corporation (within the meaning of Part XV of the SFO) which will have to be notified to us and the Stock Exchange pursuant to Divisions 7 and 8 of Part XV of the SFO (including interests and short positions which he is taken or deemed to have under such provisions of SFO) or which will be required, pursuant to section 352 of the SFO, to be entered in the register referred to therein, or will be required, pursuant to the Model Code for Securities Transactions by Directors of Listed Issuers to be notified to us and the Stock Exchange (for this purpose, the relevant provisions of the SFO will be interpreted as if they applied to the Supervisors).

#### B. Disclosure of Substantial Shareholders

Save as disclosed in the section "Substantial Shareholders" of this Prospectus, our Directors, Supervisors and chief executive of our Company are not aware of any other person, not being a

Director, Supervisor, or chief executive of our Company, who has an interest or short position in the Shares and underlying Shares of our Company which, once our H Shares are listed, would fall to be disclosed to us under the provisions of Divisions 2 and 3 of Part XV of the SFO, or, who is, directly or indirectly, interested in 5% or more of the nominal value of any class of share capital carrying rights to vote in all circumstances at general meetings of any member of our Group.

#### C. Disclaimers

Save as disclosed in this prospectus:

- (a) none of our Directors, Supervisors or chief executive of our Company has any interests and short positions in the shares, underlying shares and debentures of our Company or any associated corporation (within the meaning of Part XV of the SFO) which will have to be notified to us and the Stock Exchange pursuant to Divisions 7 and 8 of Part XV of the SFO (including interests and short positions which he is taken or deemed to have under such provisions of SFO) or which will be required, pursuant to section 352 of the SFO, to be entered in the register referred to therein, or will be required, pursuant to the Model Code for Securities Transactions by Directors and Listed Companies to be notified to us and the Stock Exchange, in each case once our H Shares are listed. For this purpose, the relevant provisions of the SFO will be interpreted as if they applied to the Supervisors;
- (b) none of our Directors or Supervisors is a director or employee of a company which is expected to have an interest in the Shares falling to be disclosed to our Company and the Stock Exchange under the provisions of Divisions 2 and 3 of Part XV of the SFO once our H Shares are listed on the Stock Exchange;
- (c) none of our Directors or Supervisors nor any of the parties listed in "— 5. OTHER INFORMATION G. Qualification of Experts" of this Appendix is materially interested in any contract or arrangement subsisting at the date of this prospectus which is significant in relation to our business;
- (d) none of our Directors or Supervisors nor any of the parties listed in "— 5. OTHER INFORMATION G. Qualification of Experts" of this Appendix is interested in our promotion, or in any assets which have, within the two years immediately preceding the issue of this prospectus, been acquired or disposed of by or leased to us, or are proposed to be acquired or disposed of by or leased to our Company;
- (e) none of the parties listed in "— 5. OTHER INFORMATION G. Qualification of Experts" of this Appendix: (i) is interested legally or beneficially in any of our Shares or any shares in any of our subsidiaries; or (ii) has any right (whether legally enforceable or not) to subscribe for or to nominate persons to subscribe for our securities; and
- (f) none of our Directors or Supervisors or their respective associates or any Shareholders of our Company (who to the knowledge of our Directors owns more than 5% of our issued share capital) has any interest in our five largest suppliers or our five largest customers.

### 5. OTHER INFORMATION

#### A. Estate Duty

We have been advised that no material liability for estate duty under PRC law is likely to fall upon our Company or any member of our Group.

#### B. Litigation

Save as disclosed in this Prospectus, as of the Latest Practicable Date, we were not involved in any material litigation, arbitration or administrative proceedings, and as far as the Directors aware, none of any material litigation, arbitration or administrative proceedings to be pending or threatened against any member of the Group.

### C. Sole Sponsor

The Sole Sponsor declared his independence in compliance with Rule 3A.07 of the Listing Rules.

The Sole Sponsor has made an application on behalf of our Company to the Listing Committee for listing of, and permission to deal in, the H Shares (including any Offer Shares that may be issued pursuant to the exercise of the Over-allotment Option). All necessary arrangements have been made to enable the H Shares to be admitted into CCASS.

We have entered into an engagement agreement with the Sole Sponsor, pursuant to which we agreed to pay a total amount of HK\$8,000,000 to the Sole Sponsor to act as the sponsor to our Company in the Global Offering.

### D. Compliance Advisor

We have appointed China International Capital Corporation Hong Kong Securities Limited as our compliance advisor in compliance with Rule 3A.19 of the Listing Rules.

#### F. Promoters

The promoters of our Company are CNNC, CIAE and NPIC.

Save as disclosed in this prospectus, within the two years immediately preceding the date of this prospectus, no cash, securities or other benefit have been paid, allotted or given to the above promoters in connections with the Global Offering or related transactions in this prospectus.

# **G.** Qualification of Experts

The qualifications of the experts, as defined under the Listing Rules, who have given their opinions or advice in this prospectus, are as follows:

Name	Qualification
China International Capital Corporation Hong Kong Securities Limited	Licensed to conduct Type 1 (Dealing in securities), Type 2 (Dealing in futures contracts), Type 4 (Advising on securities), Type 5 (Advising on futures contracts) and Type 6 (Advising on corporate finance) of the regulated activities as defined under the SFO
KPMG	Certified public accountants
King & Wood Mallesons	PRC legal advisors
Frost & Sullivan (Beijing) Inc., Shanghai Branch Co.	Independent industry consultant

### H. Consents of Experts

Each of the experts as referred to in "— 5. OTHER INFORMATION — G. Qualification of Experts" of this Appendix has given, and has not withdrawn, its respective written consents to the issue

of this prospectus with the inclusion of its report and/or letter and/or opinion and/or the references to its name included herein in the form and context in which it is respectively included.

Save as disclosed in this prospectus, none of the experts named above has any shareholding interests in any member of our Group or the right (other than the penal provisions) of sections 44A of the Companies (Winding Up and Miscellaneous Provisions) Ordinance so far as applicable.

#### I. Taxation of Holders of H Shares

The sale, purchase and transfer of H Shares are subject to Hong Kong stamp duty if such sale, purchase and transfer is effected on the H Share register of members of our Company, including in circumstances where such transaction is effected on the Stock Exchange. The current rate of Hong Kong stamp duty for such sale, purchase and transfer is a total of HK\$2.00 for every HK\$1,000 (or part thereof) of the consideration or, if higher, the fair value of the H Shares being sold or transferred. For further information in relation to taxation, please refer to "Appendix III — Taxation and Foreign Exchange."

### J. No Material Adverse Change

Save as disclosed in this prospectus, our Directors confirm that there has been no material adverse change in our financial or operational position since December 31, 2017.

# K. Binding Effect

This prospectus shall have the effect, if an application is made in pursuance hereof, of rendering all persons concerned bound by all the provisions (other than the penal provisions) of sections 44A and 44B of the Companies (Winding Up and Miscellaneous Provisions) Ordinance so far as applicable.

# L. Related Party Transactions

Within the two years immediately preceding the date of this prospectus, we have entered into the related party transactions as described in Note 34 to the financial information in the Accountants' Report set out in Appendix I.

### M. Agency Fees or Commissions Paid or Payable

Save as disclosed in this prospectus, no commissions, discounts, brokerages or other special terms have been granted in connection with the issue or sale of any capital of any member of our Group within the two years immediately preceding the date of this prospectus.

#### N. Miscellaneous

Save as disclosed in this prospectus,

- (a) within the two years immediately preceding the date of this prospectus, we have not issued nor agreed to issue any share or loan capital fully or partly paid either for cash or for a consideration other than cash;
- (b) no share or loan capital of our Group, if any, is under option or is agreed conditionally or unconditionally to be put under option;

- (c) we have not issued or agreed to issue any founder shares, management shares or deferred shares;
- (d) our Company has no outstanding convertible debt securities or debentures;
- (e) within the two years immediately preceding the date of this prospectus, no commission, discount, brokerage or other special term has been granted in connection with the issue or sale of any capital of our Company;
- (f) there is no arrangement under which future dividends are waived or agreed to be waived;
- (g) there has been no interruption in our business which may have or have had a significant effect on the financial position in the last 12 months;
- (h) none of the equity and debt securities of our Company, if any, is listed or dealt with in any other stock exchange nor is any listing or permission to deal being or proposed to be sought; and
- (i) we currently do not intend to apply for the status of a Sino-foreign investment joint stock limited company and do not expect to be subject to the Sino-foreign Joint Venture Law of the PRC.
- (j) within the two years immediately preceding the date of this prospectus, no commission has been paid or is payable for subscription, agreeing to subscribe, procuring subscription or agreeing to procure subscription for any share in or debenture of our Company.

# O. Bilingual Prospectus

The English language and Chinese language versions of this prospectus are being published separately in reliance upon the exemption provided by section 4 of the Companies (Exemption of Companies and Prospectuses from Compliance with Provisions) Notice (Chapter 32L of the Laws of Hong Kong).

# P. Preliminary Expenses

We have not incurred any preliminary expenses in connection with the Listing.

# DOCUMENTS DELIVERED TO THE REGISTRAR OF COMPANIES AND AVAILABLE FOR INSPECTION

#### DOCUMENTS DELIVERED TO THE REGISTRAR OF COMPANIES

The documents attached to the copy of this prospectus delivered to the Registrar of Companies in Hong Kong for registration were:

- (a) a copy of each of the WHITE, YELLOW and GREEN Application Forms;
- (b) the written consents referred to in "Appendix VI Statutory and General Information 5. Other Information H. Consents of Experts"; and
- (c) a copy of each of the material contracts referred to in "Appendix VI Statutory and General Information 2. Further Information about Our Business A. Summary of Our Material Contracts".

#### DOCUMENTS AVAILABLE FOR INSPECTION

Copies of the following documents will be available for inspection at the offices of Clifford Chance at 27/F, Jardine House, One Connaught Place, Central, Hong Kong during normal business hours up to and including the date which is 14 days from the date of this prospectus:

- (a) the Articles of Association;
- (b) the Accountants' Report prepared by KPMG, the text of which is set out in Appendix I;
- (c) the assurance report on unaudited pro forma financial information prepared by KPMG, the text of which is set out in Appendix II;
- (d) the audited consolidated financial statements of our Group for three financial years ended December 31, 2015, 2016 and 2017;
- (e) the legal opinions issued by King & Wood Mallesons, our PRC legal advisors in respect of our general matters and property interests;
- (f) the material contracts referred to in "Appendix VI Statutory and General Information 2. Further Information about Our Business A. Summary of Our Material Contracts";
- (g) the written consents referred to in "Appendix VI Statutory and General Information 5. Other Information H. Consents";
- (h) the service contracts referred to in "Appendix VI Statutory and General Information —
   3. Further Information about Our Directors, Supervisors and Substantial Shareholders —
   A. Particulars of Directors' and Supervisor's Contracts";
- (i) the Company Law, the Special Regulations and the Mandatory Provisions together with unofficial English translations thereof; and
- (j) the Frost & Sullivan Report.



中國同輻股份有限公司 China Isotope & Radiation Corporation