

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.

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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

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 (鉬鐳發生器), technetium-99m labeled injections (鐳^[99mTc]標記注射液), fluorine-18-FDG injection (氟^[18F]脫氧葡萄糖注射液), sodium iodine-131 solution (碘^[131I]化鈉口服溶液) and strontium-89 chloride injection (氯化銦^[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^[131I]化鈉膠囊(診斷用)), samarium-153 leixidronam injection (來昔決南鈿^[153Sm]注射液), sodium phosphate-32 oral solution (磷^[32P]酸鈉口服溶液) and sodium iodohippurate-131 injection (鄰碘^[131I]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 (凝膠型鉬錳發生器) 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

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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 and therapy model base 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

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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 of the Nuclear Medicine Branch of Beijing Medical Association (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” (“中國同輻”) 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

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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

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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.

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- ***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.

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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		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 ^[18F] 脱氧葡萄糖注射液)	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



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Product	Major diagnostic/therapeutic areas	Route of administration	Half-life of the radioisotopes	Recommended Shelf-life
Molybdenum-99/Technetium-99m generator (鉬錳發生器) 	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 ¹ (鉬 ^{[99m]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 ^[131I] 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 ^[125I] 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 (氯化銻 ^[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 bismate injection, technetium-99m succimer injection, technetium-99m methoxy isobutyl isonitrile injection, technetium-99m albumin aggregated injection, technetium-99m pentetate injection, technetium-99m L-ethylenedicycysteine injection, and technetium-99m MDP injection.

Fluorine-18-FDG injection (氟^[18F]脫氧葡萄糖注射液)

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

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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 (鉬鐳發生器)

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 (鐳^{99m}Tc]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¹³¹I]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 [¹²⁵I] 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 (氯化锶 [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%,

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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] 呼氣試驗藥盒)	<i>H. pylori</i>	12 months
		

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Product	Diagnostic area	Shelf-life of kit/ recommended service life of analyzer
Carbon-13 capsule UBT kit (尿素 ¹³ C膠囊呼氣試驗藥盒)	<i>H. pylori</i>	24 months
		
Carbon-14 helicobacter pylori analyzer with card (卡式 ¹⁴ C幽門螺杆菌測試儀)	<i>H. pylori</i>	8 years
		
Carbon-14 helicobacter pylori analyzer with liquid scintillation (液閃 ¹⁴ C幽門螺杆菌測試儀)	<i>H. pylori</i>	10 years
		
Carbon-13 breath analyzer with infra-red spectrophotometer (紅外 ¹³ C呼氣試驗測試儀)	<i>H. pylori</i>	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.

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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	Diagnosis areas	Shelf-Life
RIA kits (放射免疫分析藥盒) 	Hepatitis, Thyroid function, gonads, oncology, cardiovascular, renal, endocrine, diabetes, gastrointestinal disease and bone metabolism	1 month

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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.

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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:

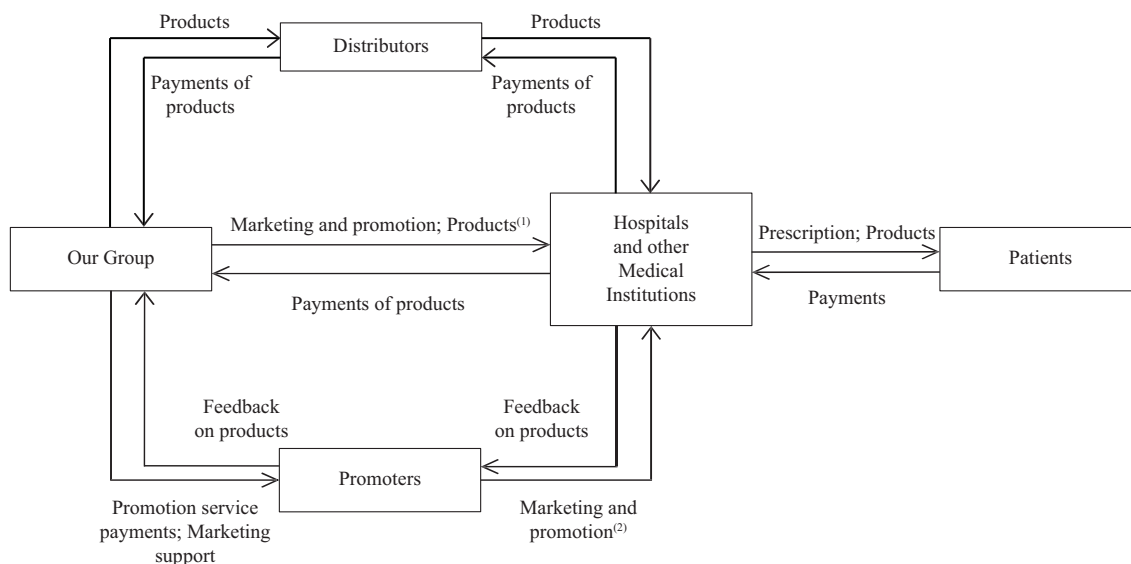


We adopt three major sales models with respect to our pharmaceuticals segment, namely: (i) direct sales through our own sales force; (ii) direct sales through marketing and promotion service by promoters; and (iii) distributorship. Our pharmaceuticals revenue generated from direct sales through own sales 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.

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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,					
	2015		2016		2017	
	Amount	%	Amount	%	Amount	%
	(RMB in millions, except in percentage)					
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

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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 imaging 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

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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 imaging 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.

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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 ended December 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.

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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 ended December 31,		
	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

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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

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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

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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

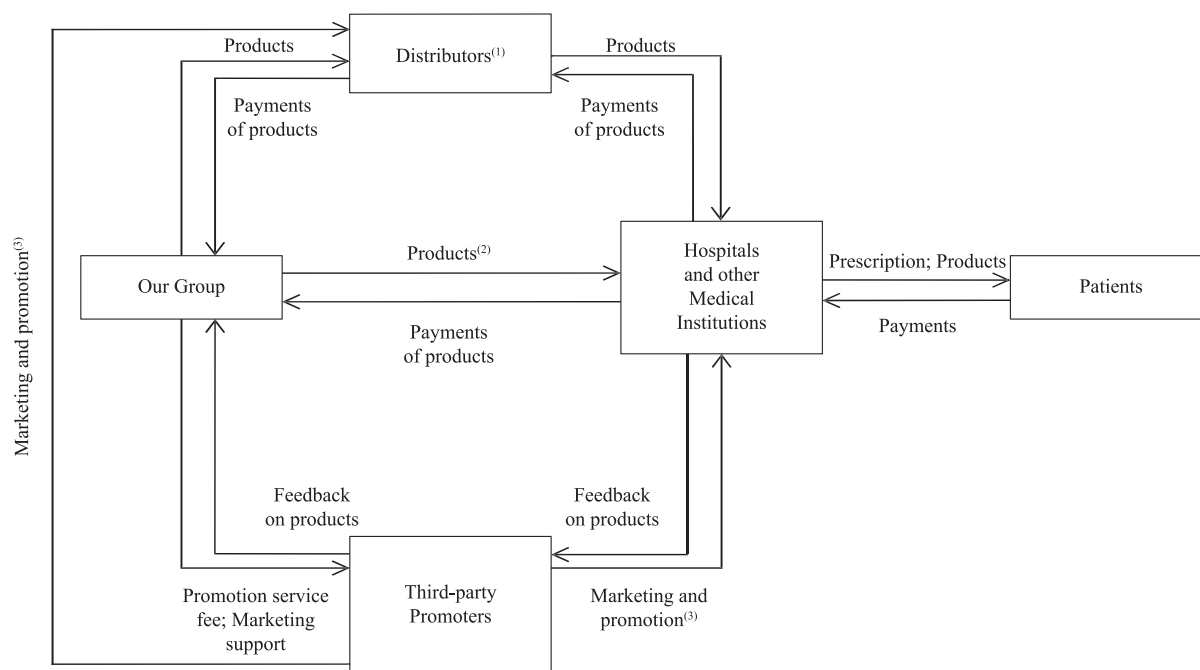
We adopted the following sales models for the sale of our UBT kits and analyzers:

- 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.

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- 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,					
	2015		2016		2017	
	Amount	%	Amount	%	Amount	%
	(RMB in millions, except in percentage)					
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

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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 pre-determined 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 ended December 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	<u>73</u>	<u>90</u>	<u>85</u>

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

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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.

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- 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.

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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 ended December 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.

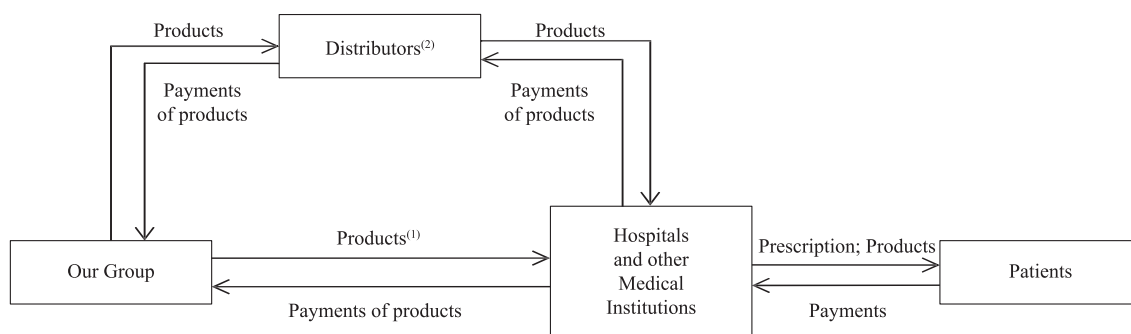
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In vitro immunoassay diagnostic reagents and kits

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		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
Distribution (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 third-party distributors which, in turn, on-sell our products to hospitals and other medical institutions in

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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:

	<u>Year ended December 31,</u>		
	<u>2015</u>	<u>2016</u>	<u>2017</u>
As of the beginning of the period	281	231	312
Additions of distributors	78	81	113
Termination of distributors	128	—	150
As of the end of the period	<u>231</u>	<u>312</u>	<u>275</u>

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.

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- 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

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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 ⁽¹⁾	Actual Production Volume	Utilization Rate ⁽²⁾	Annual Design Capacity ⁽¹⁾	Actual Production Volume	Utilization Rate ⁽²⁾	Annual Design Capacity ⁽¹⁾	Actual Production Volume	Utilization Rate ⁽²⁾
Fluorine-18-FDG injection (Ci) ⁽³⁾	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⁾	28,000	9,078	32.4%	28,000	10,737	38.3%	28,000	16,146	57.6%
Technetium-99m labeled injections (vial) ⁽³⁾	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) ⁽⁴⁾	200,000	230,000	115.0%	200,000	260,000	130.0%	350,000	304,871	87.1%
Strontium-89 chloride injection (vial) ⁽³⁾	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 ⁽¹⁾	Actual Production Volume (unit)	Utilization Rate ⁽²⁾	Annual Design Capacity ⁽¹⁾	Actual Production Volume (unit)	Utilization Rate ⁽²⁾	Annual Design Capacity ⁽¹⁾	Actual Production Volume (unit)	Utilization Rate ⁽²⁾
Carbon-14 UBT kits ⁽³⁾	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 ⁽³⁾	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.

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- (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

	Annual Design Capacity ⁽¹⁾	2015		2016		2017	
		Actual Production Volume (unit)	Utilization Rate ⁽²⁾	Actual Production Volume (unit)	Utilization Rate ⁽²⁾	Actual Production Volume (unit)	Utilization Rate ⁽²⁾
RIA kits	200,000	141,207	70.6%	131,783	65.9%	114,387	57.4%
EIA reagents, CLIA reagents and TRFIA reagents ⁽³⁾	100,000	53,955	54.0%	48,465	48.5%	49,137	49.1%
Colloidal gold reagents ⁽⁴⁾	100,000	1,513	1.5%	1,276	1.3%	649	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

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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 (銻-192近距離治療源) for medical radiotherapy purpose.


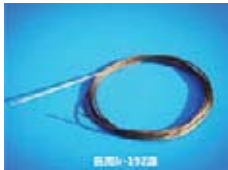




Our major industrial radioactive source products include: (i) cobalt-60 source (鈷-60輻照源) for irradiation service to sterilize medical devices, food, traditional Chinese medicine and cosmetics; (ii) californium-252 neutron source (鈾-252啟動中子源), which is widely used to start up nuclear reactors; (iii) iridium-192 non-destructive testing radioactive source (銻-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 (銻鉍中子源), 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	%
	(RMB in millions, except in percentage)					
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	<u>275.2</u>	<u>100.0</u>	<u>287.7</u>	<u>100.0</u>	<u>292.2</u>	<u>100.0</u>

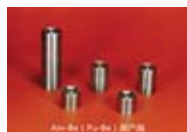
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The following table sets forth the details of our major radioactive source products:

Product	Application	Half-life of radioisotopes
Radioactive source for medical radiotherapy		
Cobalt-60 source for gamma knife 	Gamma knife	5.3 years
Iridium-192 brachytherapy source 	Brachytherapy	73.8 days
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
Iridium-192 non-destructive testing radioactive source 	Non-destructive testing equipment	73.8 days
Cesium-137 source 	Radiation detection equipment	30.2 years

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Product	Application	Half-life of radioisotopes
Americium-241/Beryllium neutron source	Well-logging applications	432.2 years



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

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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

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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.

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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:

<u>Name of Products</u>	<u>Annual Design Capacity⁽¹⁾</u>	<u>2015</u>		<u>2016</u>		<u>2017</u>	
		<u>Actual Production Volume</u>	<u>Utilization Rate⁽³⁾</u>	<u>Actual Production Volume</u>	<u>Utilization Rate⁽³⁾</u>	<u>Actual Production Volume</u>	<u>Utilization Rate⁽³⁾</u>
			<i>(in Ci, except in percentage)</i>				
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 ⁽²⁾	—	—	—	—	—	—	—
Iridium-192 non-destructive testing radioactive source ⁽⁵⁾	1.0 million	227,355	22.7%	147,605	14.8%	74,130	7.4%
Caesium-137 radioactive source ⁽⁵⁾	700	51	7.2%	113.3	16.2%	49	7.0%
Americium-241/Beryllium neutron source ⁽⁵⁾	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 overseas 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.

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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		2017	
	Amount	%	Amount	%	Amount	%
	(RMB in millions, except in percentage)					
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;

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- 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,					
	2015		2016		2017	
	Designed capacity (設計裝源量) ⁽¹⁾	Actual capacity (實際裝源量) ⁽¹⁾	Designed capacity (設計裝源量) ⁽¹⁾	Actual capacity (實際裝源量) ⁽¹⁾	Designed capacity (設計裝源量) ⁽¹⁾	Actual capacity (實際裝源量) ⁽¹⁾
	(in million Ci)					
Wujiang, Suzhou ⁽²⁾	4.0	2.9	4.0	3.1	4.0	3.14
Zhangjiagang, Suzhou ⁽³⁾	2.0	0.7	2.0	0.8	2.0	0.7
Haikou ⁽⁴⁾	0.5	0.2	0.5	0.2	0.5	0.2
Beijing ⁽⁵⁾	0.3	0.06	0.3	0.2	0.3	0.16
Changchun ⁽⁶⁾	2.0	0.8	2.0	0.7	2.0	0.65
Chengdu ⁽⁶⁾	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

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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

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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	
	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⁽¹⁾ 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

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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.

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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

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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

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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.

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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:

- (1) 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.

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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.

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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

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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

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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^[131I]化鈉診斷及治療膠囊), 131I-MIBG injection (間碘^[131I]苳胍注射液), sodium phosphate-32 oral solution (磷^[32P]酸鈉鹽口服溶液), samarium-153 lexidronam injection (來昔決南鈔^[153Sm]注射液), technetium-99 methylene diphosphonate injections (鐳^[99Tc]亞甲基二磷酸鹽注射液), fluorine-18 labeled radiopharmaceuticals (氟^[18F]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 ⁽¹⁾ (RMB in million)	Investment amount as of February 28, 2018 ⁽²⁾ (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

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	Total investment ⁽¹⁾ (RMB in million)	Investment amount as of February 28, 2018 ⁽²⁾ (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:

- (1) 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.
- (2) 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.

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 (磷^[32P]酸鈉鹽口服溶液) and samarium-153 leixidronam injections (來昔決南鈔^[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]脫氧葡萄糖注射液) 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 (銻^[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^[131I]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

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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 (鐳^[99mTc]標記注射液) and fluorine-18-FDG injection (氟^[18F]脫氧葡萄糖注射液) 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]脫氧葡萄糖注射液) is expected to reach 42,000 Ci and our annual design capacity of technetium-99m labeled injections (鐳^[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.

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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:

	<u>Annual Design Capacity as of December 31, 2017</u>	<u>Expected Annual Design Capacity</u>	<u>% increase</u>
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:

(1) Included the expected annual design capacity of sodium iodine-131 capsule which would be manufactured at Xianghe Base.

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

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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

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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

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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

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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.

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Our research, development and commercialization of a new radiopharmaceutical for imaging diagnostic and therapeutic purposes, often involves the following stages:

<u>Development Stage</u>	<u>Activities</u>	<u>Timing</u>
Pre-clinical Research	<ul style="list-style-type: none"> • Initiate the research project, prepare feasibility report of research project and implement the plan for research and development; • Undertake experimental researches on chemical synthesis of pharmaceuticals, radiolabeling, quality control and in vitro stability; • Undertake animal studies on pharmacokinetics and safety of radiopharmaceuticals; • Undertake experimental research on the compatibility of packaging materials with radiopharmaceuticals; and • Develop pilot scale manufacturing process for radiopharmaceuticals. 	Approximately three to four years
Clinical Trial Application	<ul style="list-style-type: none"> • 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; • Submit a draft clinical trial program to the CFDA for the application of the clinical trials; and • Approval by CFDA of the commencement of clinical trials. 	Approximately two years
Clinical Trials	<ul style="list-style-type: none"> • 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; • 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 • 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. 	Approximately two to three years
New Drug Application	<ul style="list-style-type: none"> • 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 • On-site inspection by the CFDA on three consecutive batches of samples of manufactured at the production facilities. 	Approximately one to two years
Launch	<ul style="list-style-type: none"> • Review by the CFDA on the application documents and all data; • Grant of GMP certificate and the pharmaceuticals production permit by the CFDA; and • Commencement of mass manufacturing. 	Approximately 18 months

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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⁽¹⁾ (RMB in millions)	Investment amount as of April 30, 2018⁽¹⁾ (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

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<u>Product candidate</u>	<u>Indication</u>	<u>Status of research and development</u>	<u>Research and development period before clinic trial application</u>	<u>Total investment⁽¹⁾ (RMB in millions)</u>	<u>Investment amount as of April 30, 2018⁽¹⁾ (RMB in millions)</u>	<u>Source of fund</u>
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:

(1) 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.

UBT kits and analyzers

<u>Product candidate</u>	<u>Contents of research and development</u>	<u>Status of product development</u>	<u>Research and development period</u>	<u>Total investment⁽¹⁾ (RMB in millions)</u>	<u>Investment amount as of April 30, 2018⁽¹⁾ (RMB in millions)</u>	<u>Source of fund</u>
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

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<u>Product candidate</u>	<u>Contents of research and development</u>	<u>Status of product development</u>	<u>Research and development period</u>	<u>Total investment⁽¹⁾ (RMB in millions)</u>	<u>Investment amount as of April 30, 2018⁽¹⁾ (RMB in millions)</u>	<u>Source of fund</u>
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:

(1) 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.

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;

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- 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.

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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:

<u>Supplier</u>	<u>Type of raw materials/services</u>	<u>Principal business</u>	<u>% of the total purchase of the Group</u>	<u>When became supplier of the Group</u>
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

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2017

Supplier A	Carbon-13 urea	Manufacturing and sale of biomedicine, biochemical reagents and consumables	10.6%	2009
Supplier I	Molybdenum-99 raw materials	Production of API-grade radioisotopes	8.6%	2014
Supplier J	Carbon monoxide gas	Development, production and marketing of stable (non-radioactive) isotopes and chemical compounds labeled with stable isotopes	7.9%	2014
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	4.4%	2014

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.

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

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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:

	<u>As of December 31, 2017</u>
Manufacturing	861
Sales and marketing	234
Quality control	155
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

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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

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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

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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.

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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.

<u>Awards and Recognitions</u>	<u>Award-winning Subsidiary:</u>	<u>Year</u>	<u>Issuing Authority</u>
Beijing Biomedical Industry Pioneer Development Project Enterprise (G20 Project) Industry leader	HTA	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)	HTA	2014	MIIT
Science and Technology Award of CNNC (Second Class) (advanced radioactive tracer technology development in oil industry)	HTA	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.

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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, GMP certifications, 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:

<u>Permit/License</u>	<u>Holder</u>	<u>Issuing Authority</u>	<u>Expiry Date</u>
Radiopharmaceuticals Production Permit	HTA	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

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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 ⁽¹⁾	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:

(1) 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.

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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 have any material financial or operational impact on our Group. During the Track Record Period, the total amount of fine or penalty imposed on us with respect to these non-compliance incidents was RMB0.8 million.

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
<p>1. According to the relevant PRC laws and regulations, the radioactive source products production company is not allowed to transfer radioactive source without prior regulatory approval from the relevant government authority.</p>	<p>On December 11, 2015, HTA was fined RMB100,000 by the MEP. HTA paid the fine in full.</p>	<p>In June 2016, we have provided enhanced professional training to the relevant employees with respect to safety awareness and nuclear safety culture as well as the relevant PRC laws and regulations on the systematic nuclear and irradiation safety management. We have also conducted enhanced monitoring of the radioactive source, radioactive materials and poisonous materials, and streamlined the sales procedures and practice of the radioactive materials.</p>	<p>We have modified the sales policy and procedures to enhance the necessary application and approval procedures of the relevant government authorities on the sales of radioactive source, including specifying the detailed application and approval procedures in the sales policy and procedures. We have also established a compliance checklist and assigned dedicated staff to conduct periodical sampling tests on the compliance matters and report to the senior management.</p>
<p>2. From July 2013 to October 2014, BNIBT sold two types of collegial gold reagents to research institutions in the PRC for research and development purpose only. BNIBT did not obtain the medical device registration certificates for such two types of collegial</p>	<p>On March 25, 2015, BNIBT was fined RMB203,600 and forfeited the illegal monetary gain of RMB5,255 generated from the sales of the collegial gold reagents by Beijing Fengtai District Food and Drug Administration Bureau. BNIBT paid the</p>	<p>BNIBT had ceased production and sale of products for research and development purpose only since October 2014.</p>	<p>In March 2015, we have provided enhanced professional training to relevant staff with respect to PRC laws and regulations on qualifications, permits and licenses of our products.</p>

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
<p>gold kits. The revenue generated from such non-compliance incident was RMB5,255.</p> <p>According to the Regulation 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) (《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 (for trial implementation) (《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.</p> <p>On March 25, 2015, BNIBT received the administrative penalty notice from Beijing</p>	<p>fine and forfeited the illegal monetary gain in full.</p>		

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
<p>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》).</p> <p>Such non-compliance incident was caused by (i) the different understanding of the Regulation on the Supervision and Administration of Medical Devices (《醫療器械監督管理條例》) and In Vitro Diagnosis Reagents Registration Administrative Measures (for trial implementation) (《體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 (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.</p>	<p>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</p>	<p>We have made entries with respect to the amortization on the cobalt-60 sealed source for irradiation service pursuant to</p>	<p>In October 2015 and October 2016, we have provided enhanced professional training to relevant staff with respect to</p>
<p>3. In 2014, Zhangjiagang Tax Bureau conducted inspection of the finance and accounting record on Huakang Radiation. According to the calculation method adopted</p>	<p>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</p>	<p>We have made entries with respect to the amortization on the cobalt-60 sealed source for irradiation service pursuant to</p>	<p>In October 2015 and October 2016, we have provided enhanced professional training to relevant staff with respect to</p>

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
<p>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.</p> <p>The incident was caused due to the different interpretation of the accounting treatment with respect to the amortization on the cobalt-60 sealed source for irradiation service between the relevant tax authorities and us.</p>	<p>sealed source to financial results of the Group.</p>	<p>the calculation method adopted by the Zhangjiagang Tax Bureau.</p>	<p>PRC laws and regulations on finance and accounting matters.</p>

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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

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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	The maximum potential liabilities or actual penalties imposed with respect to the properties with defective titles	Rectification measures taken and the status as of the Latest Practicable Date	PRC Legal Advisors' view
<p>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.</p> <p>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.</p>	<p>Jinhui Radiation acquired the parcel of land upon which the relevant building was built in 2004 and completed the construction of the relevant building in 2006. The parcel of land was farmland (農耕地) which is a type of collectively-owned land (集體土地) and is prohibited for industrial use under the relevant PRC laws and regulations. The unlawful acquisition of collectively-owned land for industrial use resulted in the failure of Jinhui</p>	<p>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.</p>	<p>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.</p>
<p>Jinhui Radiation did not obtain the relevant building ownership certificate because Jinhui Radiation had not obtained the land use right certificate with respect to the parcel of land upon which such building was built and had not obtained the relevant construction land use planning permit (建設用地規劃許可證), construction works planning permit (建設工程規劃許可證), construction works commencement permit (建設工程施工許可證) and completion and acceptance approval (建設工程竣工驗收). Consequently, Jinhui Radiation could not obtain the building ownership certificate with respect to such building according to the relevant PRC laws and regulations.</p>	<p>Radiation to obtain the land use right certificate, construction land use planning permit, construction works planning permit and construction works commencement permit. Jinhui Radiation was fined a penalty of RMB49,996 by Beijing Fangshan District State-owned Land Administration Bureau for its unlawful acquisition of, and use of, such parcel of collectively-owned land in 2008.</p>	<p>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.</p>	<p>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.</p>
<p>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.</p>	<p>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.</p>	<p>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.</p>	<p>As advised by our PRC Legal Advisors, the relevant government authorities could</p>

Nature of the properties with defective titles	The maximum potential liabilities or actual penalties imposed with respect to the properties with defective titles	Rectification measures taken and the status as of the Latest Practicable Date	PRC Legal Advisors' view
<p>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.</p> <p>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.</p> <p>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</p>	<p>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 acceptance approval. Therefore, according to the relevant PRC laws and regulations, we estimated that a penalty of RMB1.7 million may be imposed on us based on the construction cost of 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.</p>	<p>Due to the fact that CIAE owns the parcel of land upon which such building was built, we are not able to complete the building ownership transfer procedures without obtaining the land use right of the relevant parcel of land. We currently do not have plan to purchase such parcel of land from CIAE. On December 2, 2016, we received an undertaking from CIAE pursuant to which CIAE undertakes 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. We believe we could continue to</p>	<p>As advised by our PRC Legal Advisors, we have the right to occupy and use such building. As further advised by our PRC Legal Advisors, our rights to transfer, lease, mortgage or otherwise dispose of such building may not be recognized or protected under applicable PRC laws and regulations until we obtained the relevant title certificates.</p>
<p>Directors are of the view that the failure of</p>	<p>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 penalty 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</p>	<p>(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. We believe we could continue to</p>	<p>As advised by our PRC Legal Advisors, we have the right to occupy and use such building. As further advised by our PRC Legal Advisors, our rights to transfer, lease, mortgage or otherwise dispose of such building may not be recognized or protected under applicable PRC laws and regulations until we obtained the relevant title certificates.</p>

Nature of the properties with defective titles	The maximum potential liabilities or actual penalties imposed with respect to the properties with defective titles	Rectification measures taken and the status as of the Latest Practicable Date	PRC Legal Advisors' view
<p>laws and regulations, HTA could not complete the building ownership transfer procedures without obtaining the land use right of the relevant parcel of land. Consequently, HTA could not complete the transfer of the title of such building and obtain the building ownership certificate with respect to such building.</p> <p>There is no difference in cost we would have to pay if the building did not have defective title.</p>	<p>obtaining the building ownership certificate would not materially and adversely affect our business operations.</p>	<p>use such building given the undertakings provided to us by CIAE.</p>	
<p>3. HTA had not obtained the building ownership certificate with respect to the building in Tianjin for the purpose of production facilities. We have not started to use such building. Our Directors confirmed that the safety conditions of such building are sound.</p>	<p>As advised by our PRC Legal Advisors, there is a possibility that the relevant parcel of land could be reclaimed and such building could be ordered to demolish by the relevant regulatory bodies because the real estate developer failed to pay the purchase price of the acquisition of the relevant parcel of land.</p> <p>However, our Directors are of the view that the potential demolition of such building would not materially and adversely affect our business operation because we have not used such building for any purpose after we acquired such building and we do not plan to use such building in the future. Therefore, there would not be relocation cost or revenue loss if the relevant building to be ordered to demolish by the relevant government authority. Further, as of the Latest Practicable Date, 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 penalty to be imposed by the relevant governmental authorities due to the failure to obtain the</p>	<p>As the property developer failed to pay the purchase price of the acquisition of the relevant parcel of land upon which such building was built in full to the governmental authority and, as a result, failed to obtain the state-owned land use right certificate, HTA is not able to obtain the building ownership certificate with respect to such building.</p>	<p>As advised by our PRC Legal Advisors, we have the right to occupy and use such building. As further advised by our PRC Legal Advisors, our rights to transfer, lease, mortgage or otherwise dispose of such building may not be recognized or protected under applicable PRC laws and regulations until we obtained the relevant title certificates.</p>
<p>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.</p> <p>HTA bought such building from a third party property developer in Tianjin in March 2005. The reason that HTA had not obtained the relevant building ownership certificate is due to the fact that the property developer failing to pay the purchase price of the acquisition of the relevant parcel of land upon which such building was built in full to the governmental authority and, as a result, failing to obtain the state-owned land use right certificate.</p>	<p>However, our Directors are of the view that the potential demolition of such building would not materially and adversely affect our business operation because we have not used such building for any purpose after we acquired such building and we do not plan to use such building in the future. Therefore, there would not be relocation cost or revenue loss if the relevant building to be ordered to demolish by the relevant government authority. Further, as of the Latest Practicable Date, 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 penalty to be imposed by the relevant governmental authorities due to the failure to obtain the</p>	<p>We have obtained a Tianjin Real Property Registration Inquiry Confirmation issued by Tianjin Jinnan District Housing Administration Bureau (天津市津南区房屋管理局) as proof of our ownership of such building. As advised by our PRC Legal Advisors, Tianjin Jinnan District Housing Administration Bureau (天津市津南区房屋管理局) is the competent authority to issue such confirmation because it is the building registration authority where the relevant building is located.</p>	
<p>Consequently, HTA could not obtain the building ownership certificate with respect to such building.</p> <p>There is no difference in cost we would have to pay if the building did not have defective title.</p>	<p>However, our Directors are of the view that the potential demolition of such building would not materially and adversely affect our business operation because we have not used such building for any purpose after we acquired such building and we do not plan to use such building in the future. Therefore, there would not be relocation cost or revenue loss if the relevant building to be ordered to demolish by the relevant government authority. Further, as of the Latest Practicable Date, 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 penalty to be imposed by the relevant governmental authorities due to the failure to obtain the</p>	<p>We have obtained a Tianjin Real Property Registration Inquiry Confirmation issued by Tianjin Jinnan District Housing Administration Bureau (天津市津南区房屋管理局) as proof of our ownership of such building. As advised by our PRC Legal Advisors, Tianjin Jinnan District Housing Administration Bureau (天津市津南区房屋管理局) is the competent authority to issue such confirmation because it is the building registration authority where the relevant building is located.</p>	

Nature of the properties with defective titles	The maximum potential liabilities or actual penalties imposed with respect to the properties with defective titles	Rectification measures taken and the status as of the Latest Practicable Date	PRC Legal Advisors' view
<p>4. Headway had not obtained the building ownership certificate with respect to a building in Shenzhen High and New Technology Industrial Park (深圳市高新技術產業園區) (formerly known as Shenzhen High and New Technology Industrial Village (深圳市高新技術工業村)) in Shenzhen for the purpose of production facilities. Our Directors confirmed that the safety conditions of such building are sound.</p> <p>The gross floor area of the building is 1,725.2 square meters and represents approximately 1.3% of the total gross floor area of our owned buildings.</p> <p>Headway bought such building from Shenzhen High and New Technology Area Development and Construction Corporation (深圳高新區開發建設公司), being the property developer of Shenzhen High and New Technology Industrial Park (深圳市高新技術產業園區) in September 1998. The reason that Headway had not obtained the relevant building ownership certificate is due to the fact that the property developer was insolvent after Headway acquired such building and its failure to complete the completion and approval procedures. Consequently, Headway could not obtain the building ownership certificate with respect to such building.</p> <p>There is no difference in cost we would have to pay if the building did not have defective title.</p>	<p>building ownership certificate of such building.</p> <p>As advised by our PRC Legal Advisors, there is a possibility that such building could be ordered to demolish according to the relevant PRC laws and regulations because the property developer failed to complete the completion and approval procedures.</p> <p>However, our Directors are of the view that the potential demolition would not materially and adversely affect our business operation because we are in the process of establishing a new UBT kits and analyzers production base in Shenzhen which is expected to commence commercial production in the second half of 2018. Such new production base not only covers our existing manufacturing capacity but also expands capacity in response to the increasing demand of our UBT products. As of the Latest Practicable Date, we had not been ordered to demolish such building by the relevant government authority. Further, as of the Latest Practicable Date, 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 penalty to be imposed by the relevant governmental authorities due to the failure to obtain the building ownership certificate of such building.</p>	<p>Due to the fact that the property developer was insolvent after Headway acquired such building and its failure to complete the completion and approval procedures, Headway is not able to obtain the building ownership certificate with respect to such building.</p> <p>On March 22, 2012, we obtained written confirmation from Shenzhen Science and Technology Innovation Commission (深圳市科技創新委員會) that Headway had purchased the relevant building. As advised by our PRC Legal Advisors, Shenzhen Science and Technology Innovation Commission (深圳市科技創新委員會) is the competent authority to issue such confirmation because it is the government authority in charge of the administrative management and sale of premises in Shenzhen High and New Technology Industrial Park (深圳市高新技術產業園區) where the relevant building is located.</p>	<p>As advised by our PRC Legal Advisor, we have the right to occupy and use such building. As further advised by our PRC Legal Advisors, our rights to transfer, lease, mortgage or otherwise dispose of such building may not be recognized or protected under applicable PRC laws and regulations until we obtained the relevant title certificates.</p>

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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

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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

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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 demolition 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 anti-corruption 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 bribes. 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;

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- 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.