GENSCRIPT BIOTECH CORPORATION
金斯瑞生物科技股份有限公司*

(incorporated in the Cayman Islands with limited liability)
Stock Code: 1548

2018
ANNUAL REPORT

*For identification purposes only

Genscript Biotech Corporation (the "**Company**" or "**Genscript**", together with its subsidiaries referred to as the "**Group**") is a well-established global biotech company, which has consolidated its leading position in the gene synthesis service market with recognized stature in synthetic biology application areas . The Company's mission is to "Make the Human and Nature Healthier through Biotechnology" by establishing a leading innovative protein and antibody engineering platform and striving for opportune breakthroughs in the fields of cell and gene therapies and industrial enzymes for the benefit of mankind.

The Group is a well-recognised life sciences research and application service and product provider that applies its proprietary technology to various fields from basic life sciences research to translational biomedical development, industrial synthetic products, and cell therapeutic solutions. The broad and integrated life sciences research and application service and product portfolio comprises four segments that are all incubated internally, deeply rooted in our proprietary gene synthesis technology and strongly supported by our advanced protein and antibody engineering competence, namely, (i) bio-science services and products, (ii) biologics development services, (iii) industrial synthetic biology products, and (iv) cell therapy. The bio-science services and products are primarily used by scientists and researchers for conducting fundamental life sciences research, translational biomedical research, and early stage pharmaceutical development. Its biologics development services are used by biopharmaceutical and biotech companies for the development of therapeutic antibodies, and gene or cell therapy products with an integrated platform. Its synthetic biology products are used by industry users of industrial enzymes, such as those in the food and feed industries. Its cell therapy products are used to treat refractory diseases including cancer and inflammatory diseases. Since synthetic biology is backed by gene synthesis and editing technology, it falls under the Group's professional expertise. The Group has made significant progress in its synthetic biology research and application areas, which mainly materialised into its innovative chimeric antigen receptor ("**CAR**") T-cell ("**CAR-T**") therapy and industrial enzyme businesses.

With a strong sales and marketing team and strong research and development capabilities, the Company maintains a stable and sustainable growth.

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CORPORATE PROFILE

GenScript Biotech Corporation (the "**Company**" or "**GenScript**", together with its subsidiaries, the "**Group**") is a well-recognised life sciences research and application service and product provider that applies its proprietary technology to various fields from basic life sciences research to translational biomedical development, biologics development services, industrial synthetic products, and cell therapeutic solutions. We maintain our world market leadership in the global gene synthesis service market with recognised stature in synthetic biology.

Our broad and integrated life sciences research and application service and product portfolio comprises four segments, namely, (i) bio-science services and products, (ii) biologics development services, (iii) industrial synthetic biology products, and (iv) cell therapy. For the year ended December 31, 2018, we had generated approximately US$141.0 million, US$20.7 million, US$17.7 million, and US$51.6 million from our four segments, representing approximately 61.0%, 9.0%, 7.7%, and 22.3% of our total revenue, respectively. With a strong sales and marketing team and strong research and development capabilities, the Company maintains a stable and sustainable growth.

Through 16 years of effort since we were originally founded in New Jersey, the United States in 2002, "GenScript" is now recognised as a well-known and trusted brand underpinned by its high quality life sciences research and application services and products and its synthetic biology application fields in cell therapeutical solutions and its industrial enzyme products.

(i) Our bioscience services and products are primarily provided to scientists and researchers for conducting fundamental life sciences research to "Make Research Easy"; (ii) our biologics development services are provided to biotech and biopharma companies to "Speed Up Drug Discovery and Development Process" by utilizing our proprietary platform technology. Both of these two type of services business are operated under the brand "GenScript" that has become well-recognized by the global customer community; (iii) our synthetic biology products are consumed by industry users. Currently, we concentrate on providing high quality industrial enzymes products to customers in the food and feed industries under the brand "Bestzyme" that has gained its reputation in the market resulted from its capability to "Make the Best Enzymes"; and (iv) our cell therapy business is "Pursuing A Cure" to malicious cancers and infectious diseases operated under the brand "Legend Biotech" that has become well known due to its CAR-T cell therapy product "LCAR-B38M" that provides a potential curable solution to refractory multiple myeloma. As of December 31, 2018, we had engendered the trust and confidence of a broad and diverse customer base, including pharmaceutical and biotech companies, colleges and universities, research institutes, government bodies (including government testing and diagnostic centres), and distributors. As of December 31, 2018, over 35,200 international peer-reviewed journal articles had cited the use of our life sciences research and application services and products, among which many leading scientists and researchers in life sciences research industries were indicated to be frequent users of our services and products. For the year ended December 31, 2018, our sales to such categories of customers generated approximately 71.6%, 14.7%, 5.9%, 3.7%, and 4.1% of our total revenue, respectively.

We have established an extensive direct sales network, reaching over 100 countries in North America, Europe, the PRC, Japan, and the other Asia Pacific regions. We primarily sell our life sciences research and application services and products through our own direct sales force to our customers worldwide, while we also sell our services and products through independent third-party distributors to expand our market presence and facilitate communication with end users. For the year ended December 31, 2018, we had generated approximately US$132.7 million, US$48.0 million, US$18.5 million, US$12.9 million, US$4.4 million, and US$14.5 million from our sales to customers in North America, the PRC, Europe, Asia Pacific (excluding the PRC and Japan), Japan, and others, representing approximately 57.4%, 20.8%, 8.0%, 5.6%, 1.9%, and 6.3% of our total revenue, respectively.

CORPORATE INFORMATION

BOARD OF DIRECTORS

Executive Directors

Dr. Zhang Fangliang *(Chairman and Chief Executive Officer)*
Ms. Wang Ye *(President)*
Mr. Meng Jiange *(Vice President of Investor Relations)*

Non-Executive Directors

Dr. Wang Luquan
Mr. Pan Yuexin
Ms. Wang Jiafen

Independent Non-Executive Directors

Mr. Guo Hongxin
Mr. Dai Zumian
Mr. Pan Jiuan

AUDIT COMMITTEE

Mr. Dai Zumian *(Chairman)*
Mr. Pan Jiuan
Mr. Guo Hongxin

REMUNERATION COMMITTEE

Mr. Guo Hongxin *(Chairman)*
Ms. Wang Ye
Mr. Dai Zumian

NOMINATION COMMITTEE

Dr. Zhang Fangliang *(Chairman)*
Mr. Pan Jiuan
Mr. Dai Zumian

SANCTIONS RISK CONTROL COMMITTEE

Dr. Zhang Fangliang *(Chairman)*
Ms. Wang Ye
Mr. Meng Jiange
Mr. Eric Wang
Mr. Shawn Wu

COMPANY SECRETARY

Ms. Wong Wai Ling

AUTHORISED REPRESENTATIVES

Dr. Zhang Fangliang
Mr. Meng Jiange

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CORPORATE INFORMATION

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PRINCIPAL SHARE REGISTRAR AND TRANSFER OFFICE

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HONG KONG SHARE REGISTRAR

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Hong Kong

PRINCIPAL BANKS

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Bank of America Scotch Plains Office

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NJ 07076
USA

Yueyahu Branch of China Merchant Bank

No. 88, Mu Xu Yuan Street
Nanjing
PRC

COMPANY WEBSITES

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www.legendbiotech.com
www.bestzyme.com

PLACE OF LISTING OF SHARES

The Stock Exchange of Hong Kong Limited
– Main Board

STOCK CODE

1548

STOCK NAME

GENSCRIPT BIO

FINANCIAL HIGHLIGHT

- For the year ended December 31, 2018, the revenue of the Group was approximately US$231.0 million, representing an increase of 51.4% as compared with approximately US$152.6 million for the year ended December 31, 2017.

- For the year ended December 31, 2018, the gross profit increased by 51.5% from approximately US$104.6 million in 2017 to approximately US$158.5 million.

- For the year ended December 31, 2018, the profit of the Group decreased by 23.0% from approximately US$27.0 million in 2017 to approximately US$20.8 million. The adjusted net profit (excluding share-based payment expenses) was approximately US$29.6 million, representing a decrease of 0.7% from approximately US$29.8 million in 2017. During the Reporting Period, the Group invested significantly into research and development activities to strengthen its technical cutting edge and also into the talent pools, both of which are key drivers for a sustainable business growth in the long run and a more robust foundation for growth in the future. For the year ended December 31, 2018, the Group's research and development expense was approximately US$74.1 million, representing an increase of 309.4% as compared with approximately US$18.1 million for the year ended December 31, 2017, in which the research and development expense in connection with the cell therapy segment was approximately US$52.1 million for the year ended December 31, 2018.

- For the year ended December 31, 2018, profit attributable to owners of the Company decreased by 18.8% from approximately US$26.1 million in 2017 to approximately US$21.2 million. The adjusted net profit attributable to owners of the Company (excluding share-based payment expenses) was approximately US$30.1 million, representing an increase of 4.2% from approximately US$28.9 million in 2017.

FIVE-YEAR FINANCIAL SUMMARY

	For the year ended December 31,				
	2014	2015	2016	2017	**2018**
			US$'000		
Operation Results					
Revenue	69,994	86,709	114,735	152,649	**231,017**
Gross profit	44,098	57,078	76,229	104,591	**158,539**
Profit after income tax	6,175	17,504	26,535	27,005	**20,759**
Profit attributable to shareholders of the Company	6,175	17,504	26,170	26,123	**21,216**
Non-controlling interest	–	–	365	882	**(457)**
Basic earnings per share *(US$)*	0.0052	0.0147	0.0157	0.0152	**0.0118**
Diluted earnings per share *(US$)*	0.0051	0.0143	0.0153	0.0151	**0.0115**
Assets					
Non-current assets	48,588	49,060	62,123	106,369	**237,513**
Current assets	43,792	133,014	163,909	397,895	**679,463**
Current liabilities	29,188	30,894	39,215	272,716	**153,515**
Net current assets	14,604	102,120	124,694	125,179	**525,948**
Non-current liabilities	1,445	1,932	2,796	3,229	**270,162**
Net assets	61,747	149,248	184,021	228,319	**493,299**
Cash and cash equivalents	25,637	103,720	136,464	123,857	**494,558**
Inventories turnover days *(day)*	22	26	35	49	**55**
Trade receivables turnover days *(day)*	59	65	61	66	**71**
Trade payables turnover days *(day)*	33	33	35	47	**48**

CHAIRMAN'S STATEMENT

Dear Shareholders,

On behalf of the Board of Directors (the "**Board**"), I am pleased to present the results of the Group for the year ended December 31, 2018 (the "**Year**" and the "**Reporting Period**").

2018 was a remarkable year for the Genscript Group and for the global healthcare industry as a whole. Our group has made solid progress in business growth through both technology and management innovations. We have been benefitted from the growth of the biotech sectors in the United States, China and other countries. Investment has been growing steadily in the biotech field, and this has accelerated the transforming of biological science and technology innovation into medical, industrial, and other applications.

We have made persistent effort to drive the Company to realize our unique business strategy. We always devote our efforts to meet the customers' growing demands. We believe this is the ultimate and effective approach for us to achieve sustainable business growth and to maximize value for our shareholders.

On the one hand, technological innovation has been the genetic code imprinted in the Group's development. Ever since the establishment of Genscript in 2002 in New Jersey, the United States, we have been focusing on the establishment of the internal ecosystem by building up our vertically integrated technology platforms that are deeply rooted in our leading innovative gene synthesis, protein and antibody engineering technology. Currently we have consolidated our business into four major business platforms, namely, Life Sciences Research CRO platform, Biological Drug CDMO (contract development and manufacturing organization) platform, Industrial Synthetic Biology Products platform, and Cell Therapy platform. Each platform has been actively interacting with the broad customer base and other stakeholders, and have made significant progress in their targeted markets during the year of 2018. Currently, Genscript's operational footprints have been present in the United States, Europe, Japan, and Asia with its sales network covering more than 100 countries and regions.

Our CRO (contract research organization) service platform continued to maintain a healthy growth in 2018. This platform is centralized in custom gene synthesis. Our capability, rich experience and our technical know-how in the protein production, antibody development, and peptide synthesis, constitute the basis of our global leading position in molecular biology services and products in 2018. We have provided a one-stop solution to life science research community with a long-term commitment of "Make Research Easy" highlighted in our marketing tools and forms, and the continued growth of this sector has proved that Genscript has become their preferred partner in molecular biology research. Starting from 2018, improvement and innovation have been made in technology, production, management, and marketing and will be carried out in the upcoming years. We have also made effort to speed up the automation of our CRO platform in order to improve productivity and product quality.

Our Biological Drug CDMO (contract development and manufacturing organization) service arm fully took the advantages of our internally-invented innovative Single Domain-Antibody (SMAB) technology platform. This recently spun-out business unit has collaborated with biopharma and biotech clients and has doubled its sales revenue compared with 2017. The SMAB platform has shown an increasing market competition strength and customer attractiveness. We have demonstrated it can make multi-functional research and therapeutic antibodies faster and easier. This CDMO business unit will be focusing on biologics development service for our customers, expediting their development process and accelerating their drug candidates moving into IND and clinical development.

CHAIRMAN'S STATEMENT

2018 was a productive year for our Cell Therapy platform. From the regulatory perspective, Nanjing Legend Biotechnology Co., Ltd.* (南京傳奇生物科技有限公司) formally received the permission from the China Food and Drug Administration* (國家食品藥品監督管理總局) for conducting confirmative clinical trials of LCAR-B38M for multiple myeloma (MM) patients in March 2018. This permission was granted based on the safety and efficacy profile reflected in the 74 patients trial data of the Investigator Initiated Study on LCAR-B38B. Our Bi-Specific Single Domain Antibody platform that enabled the unique CAR structure of bi-epitope binding of LCAR-B38M to the cancer cell surface marker has determined the clinical performance of the LCAR-B38M. At the same time frame, Janssen who collaborated with Legend on LCAR-B38M program, obtained the clearance from U.S. Food and Drug Administration in May 2018 to conduct Phase Ib/2 clinical trials in the United States. Moreover, on 1 February 2019, Office of Orphan Product Development from the FDA has granted the Orphan Drug Designation to JNJ-68284528/LCAR-B38M for treatment of multiple myeloma.

US Phase Ib clinical trial has been on track so far. According to the plan outlined in the collaboration and license agreement signed in December 2017 between Legend Biotech USA Inc., Legend Biotech Ireland Limited, and Janssen Biotech, Inc., Phase II trials in both the United States and China will be conducted via GMP facilities jointly owned and managed. Therefore, the parties have been working diligently in 2018 to build such GMP facilities and to achieve the planned schedule.

Our industrial synthetic biology products platform has also made satisfactory progress. We have recruited new top managers who are industrial veterans with years of business and marketing experiences. In 2018, we have completed the construction and testing of new manufactory facility that is six times of the original facility. We expect the new facility will begin to ramp up the industrial enzyme production capacity to meet the customers' large volume demands. On top of providing traditional industry enzyme products, our industrial synthetic biology products platform also established new business model by collaborative projects with our key customers. By making breakthroughs on key enzyme catalysts, we work closely with our partners to produce high value-added chiral compounds, chiral intermediates and chiral bulk drugs, which we believe will add value to our business portfolio and contribute to the environment protection by reducing the traditional chemical processes.

2018 is a year in which GenScript has grown significantly in many aspects including in terms of headcount and top talent recruitment. Total headcount reached more than 2,620, representing an increase of approximately 35.6% as compared with that in 2017. The majority of our new employees were deployed to the frontlines of research and development, business development and production of all business units. As of 31 December 2018, more than 7.0% and 26.3% of our employees hold Ph.D. degrees and master's degrees, respectively. In aggregate, more than 73.6% of our employees hold bachelor or higher degrees, compared to 68.0% in 2017. We have also further improved our employee dual-path and scaling promotion system. We have made substantial effort in attracting and recruiting top talents from both academic and industrial sectors to boost our overall managerial and operational strength. We have also implemented technical and professional career development plans to all levels of employees. We believe that all these investments into talents are fully justified and will definitely paid off in the course of long term business development.

In 2018, we have conducted multiple internal management team trainings and brainstorming, focusing on the organizational optimization and operational process improvement. These activities have shown satisfactory results. We have streamlined the decision making process and operation workflow at all levels of our organization. We have also optimized the performance measurement mechanism and improved employee's overall compensation package to match with the upper level of biotech industry. Such measurement will have a long-lasting effect on the performance of our Company and will increase our competitive strength.

The year of 2018 was a significant one for the United States and China in terms of regulatory innovation, which boosted the progress of biotech and pharmaceutical industries.

The Food and Drug Administration ("**FDA**") of the United States approved 59 novel drugs either as new molecular entities ("**NMEs**") under new drug applications ("**NDAs**") or as new therapeutic biologics under biologics license applications, representing an increase of 28% compared with last year. Among them, 32% (19 NMEs) was identified as first-in-class novel drugs, and 58% (34 NMEs) were approved to treat rare or "Orphan" diseases. But the most magnificent implication, from a regulatory perspective, was that 41% (24 NMEs) were approved through Fast Track Designation while 24% (14 NMEs) upon Breakthrough Designation. Both mechanisms have expedited the FDA review and approval process with the hope to address medical needs and benefit patients and the society. On the other side of the globe, the Chinese government has rolled out favorable policies to shorten anti-cancer drugs approval cycles, and will grant preferred tax policies, such as lowering the VAT ratio to 3% to those drugs treating rare and orphan diseases whenever they are imported or domestically manufactured.

Financially speaking, 2018 was a phenomenal year for biotech financing in terms of investment across the global market. The Stock Exchange of Hong Kong Limited welcomed pre-revenue biotech companies, which instilled vigor into biotech and biopharma companies. In mainland China, the upcoming opening of the Science and Technology Innovation Board at the Shanghai Stock Exchange may also mark a major milestone. As in the merger and acquisition field, followed by the acquisition of one of the major global CAR-T players by one of the leading biopharma companies, valued at US$10 billion in January 2018, the acquisition of such biopharma company by another biopharma company at a record-breaking amount of US$74 billion was announced in early January 2019. The news brought the CAR-T immune-cell therapy under the spotlight again due to its potential to cure a variety of tumors.

The United States Congress has approved a US$2 billion raise in funding, to US$39.1 billion, for the National Institutes of Health ("**NIH**"), a primary agency in the United States, responsible for supporting multidisciplinary biomedical and behavioral research. The raise represented an increase of 5% compared with the budget in 2018, making it the fourth year in a row that NIH has received a substantial increase in its budget.

Looking forward to 2019, the Group continues to concentrate on implementing the following business strategies:

i. Further investment in research and development and production capacity, focusing on the following key business areas:

   a) Cell therapies – We will put increasing effort to this space. We aim to develop and gain advanced CAR-T, TCR (T cell receptor), and other gene therapy technologies, extend our current autologous platform into allogeneic platform. We intend to target onto hematologic malignancies, solid tumors, infectious diseases, and autoimmune diseases;

b) Biological drug CDMO service platform – We aim to expand the application of our SMAB platform to provide advanced biological drug development services; further expand the GMP production capacity to enable fully integrated biological drug development and manufacturing capability; and

c) Molecular biology CRO and product offering – to further strengthen our global leading position in gene synthesis and other life sciences technology products and services.

ii. Further strengthening of the sales and marketing forces in order to continue improving our market penetration into:

a) Establish cell therapy commercial team in the United States and the China markets to prepare for the necessary procedures and certification with the intention to conduct a global commercial launch of the product of LCAR-B38M;

b) Further strengthen the collaboration between our CDMO platform with the biotech and biopharma community by providing innovative solutions from both scientific and commercial perspectives;

c) Enhance the penetration into the key accounts through strategic cooperation and to build up long term mutual beneficial relationships; and

d) Further consolidate our leading position on molecular biology services and products market by pushing the boundary into broader life science applications.

iii. We aim to pursue strategic acquisition opportunities for cutting-edge techniques and business entities as they arise in order to complement the existing internal capacity and to speed up the overall growth.

In conclusion, I would like to express my sincere thanks to our customers, shareholders and other stakeholders for your continuous trust and support, which are the ultimate sources that motivate us to further strive for great success in the upcoming years. I would also like to thank our dedicated and committed employees, who are the concrete foundation for the achievements that we have made and we are going to fulfill in the future.

Thank You.

Dr. Zhang Fangliang
Chairman and Chief Executive Officer

March 22, 2019

MANAGEMENT'S DISCUSSION AND ANALYSIS

POSITIONING OF THE COMPANY

The Group is a well-established global biotech company. Our mission "Make the Human and Nature Healthier through Biotechnology" has been deeply imprinted into our DNA. Over the past 16 years of our corporate development, we have successfully established a business platform based on advanced and proprietary technologies and know-hows. We have built and maintained a world-wide leading gene synthesis technology and achieved high protein and antibody engineering competences. Our business footprint has been spread throughout 100 countries worldwide with our operational hubs located in the United States, Mainland China, Hong Kong, Japan, Netherlands and Ireland. Our workforce has increased to over 2,620 headcounts by the end of 2018. Our professional team is committed and devoted to serving our global customers.

The bio-science services and products segment serves as a strong and stable revenue generating foundation for the entire corporate. Starting as a gene synthesis company, we have kept the position as one of the world's largest molecular biology CRO companies with capabilities ranging from gene synthesis to biological drug discovery, development and manufacturing (CDMO, contract development and manufacturing organization). Our bio-science services and products business has been a source of creative new technologies that have contributed to the development and expansion of our business portfolio. The bio-science services and products segment serves pharmaceutical, biotech, government and academic customers worldwide. We are proud of ourselves for our contribution to the advancement of science and the fact that our services and products have been cited in over 35,200 international peer reviewed journal articles as of December 31, 2018.

Legend Biotech Corporation ("**Legend**") is one of the subsidiary companies of the GenScript family. It was developed from our internal gene manipulation and antibody engineering capabilities. It has taken us to a whole new space with its proprietary CAR-T technology and clinical cell therapy programs. Working closely with our collaborators at Janssen Biotech, Inc. ("**Janssen**"), we have recently begun a Phase 1b/2 clinical trial in the United States. In China, Legend has been given the approval to move forward on a confirmative clinical trial with its innovative LCAR-B38M product targeting the relapsed and refractory multiple myeloma. We intend to conduct clinical trials and commercial development in China, the United States and Europe. Legend has invested heavily in team building in 2018 with the goal of solidifying our position by hiring senior level managers and professionals to make up the core of the Legend's management team. We aim to transform Legend into a world-class bio-pharmaceutical company.

Bestzyme Biotech Corporation and its subsidiaries make up the Bestzyme Group in the synthetic biology space. The Bestzyme Group uses our advanced enzyme engineering technology to develop products for food processing and feed additive markets. Our long-term goals are of three folds: to improve the quality of people's daily lives, to address environmental problems, and to use enzymes at a large scale in various industry sectors to improve the performance and to reduce costs. We believe synthetic biology offers us new opportunities from both the technical and commercial perspectives, and will lead to continuous and expanded growth.

During the Reporting Period, the Group achieved growth in sales revenue for all business units, and we also invested significantly into research and development activities to strengthen our technical cutting edge and also into the talent pools, both of which are key drivers for a sustainable business growth in the long run. We are fully confident that our persistent efforts on both technical and managerial aspects will be paid off ultimately and will allow us to achieve a better future.

MANAGEMENT'S DISCUSSION AND ANALYSIS

BUSINESS REVIEW

During the Reporting Period, the overall revenue of the Group was approximately US$231.0 million, representing an increase of 51.4% as compared with approximately US$152.6 million for the year ended December 31, 2017. The gross profit was approximately US$158.5 million, representing an increase of 51.5% as compared with approximately US$104.6 million for the year ended December 31, 2017. The increase in both revenue and gross profit was primarily attributable to (i) the significant increase in revenue derived from the biologics business as well as the significant increase in the number of orders and customers subsequent to years of development of both novel antibody drugs and biosimilar development services, which resulted in the launch of advanced and/or improved services and products and improvement in our production competitiveness, (ii) the increase in both the number of customers and their purchase volume of industrial synthetic biology products, primarily due to the upgraded products and the setting up of sales team, and (iii) the collaboration with Janssen.

During the Reporting Period, the profit was approximately US$20.8 million, representing a decrease of 23.0% as compared with approximately US$27.0 million for the year ended December 31, 2017. The adjusted net profit (excluding share-based payment expenses) was approximately US$29.6 million, representing a decrease of 0.7% from approximately US$29.8 million for the year ended December 31, 2017. The investment into research and development and team building, especially the recruitment of talents with years of industry experience, and capital investment into capacity upgrading contributed to the decrease in profit. Management team believes the investment and measures are well justified and will lay down a more robust foundation for growth in the future.

The profit attributable to owners of the Company was approximately US$21.2 million, representing a decrease of 18.8% as compared with approximately US$26.1 million for the year ended December 31, 2017. The adjusted net profit attributable to owners of the Company (excluding share-based payment expenses) was approximately US$30.1 million, representing an increase of 4.2% from approximately US$28.9 million for the year ended December 31, 2017.

During the Reporting Period, the Company generated approximately US$141.0 million, US$20.7 million, US$17.7 million, and US$51.6 million from the four segments, namely, (i) bio-science services and products, (ii) biologics development services, (iii) industrial synthetic biology products, and (iv) cell therapy, representing approximately 61.0%, 9.0%, 7.7% and 22.3% of the total revenue, respectively.

Results Analysis of the Four Business Segments

1. Bio-science services and products

This segment provides comprehensive research services in five key categories, namely, gene synthesis and molecular cloning, oligonucleotide synthesis, protein production, peptide synthesis, and antibody development. These services and associated products are widely used and are fundamental to life sciences research and application, such as basic biology studies, disease and pharmaceutical research, drug discovery, agriculture, environmental studies, and the food industry.

Results

During the Reporting Period, the revenue generated from bio-science services and products was approximately US$141.0 million, representing an increase of 29.1% as compared with approximately US$109.2 million for the year ended December 31, 2017. During the same period, the gross profit was approximately US$95.6 million, representing an increase of 24.6% as compared with approximately US$76.7 million for the year ended December 31, 2017. The increase in both revenue and gross profit was primarily attributable to (i) fully operational Zhenjiang production facility, along with the automated production line of the peptide business, increased production capacity of bio-science business that brought additional steady revenue stream to the segment, (ii) (a) establishment of Genscript Biotech (Netherlands) B.V. ("**GS EU**") to cope with the extensive market investment strategy, (b) reinforcement of the sales team by recruiting more experienced sales persons and engaging them in more exhibitions as well as advertising on diverse media platforms with new packaging launched to enhance brand image and visibility, (c) enhanced implementation of a wide range of user-friendly online services and their continuous upgrades so as to attract new customers and improve customers' loyalty of our services and products, and (iii) continued research and development investment that enabled more competitive new products and services to be launched onto the market, thereby expanding the customer range and reinforcing customers' loyalty, in addition to the enhancement of our core competitiveness.

Development strategies

The Company intends to (i) continue to upgrade GenSmart, our online gene design tool and integrated ordering system, streamline online experience and secure current position as one of the top providers in the gene synthesis industry, (ii) automate and standardize the production and research and development platform to further improve service and product quality and reproducibility to lead the industrial standard, (iii) develop services and products to satisfy the needs for emerging industries in synthetic biology to generate stable revenue with higher profit margin, (iv) engage in research and development projects with leading professors in academia to gain access into top minds in the field, (v) build a novel platform of protein analysis and protein purification based on magBeads and e-Stain technology to form a complete solution for discovery, development and production of protein and recombinant antibodies, and commercialize the solution to fast growing markets, such as biologics development.

2. Biologics development service

This segment provides comprehensive services in five key categories, namely, antibody drug discovery, antibody drug pre-clinical development, antibody drug clinical development, plasmid & virus pre-clinical development and plasmid & virus clinical development. These services and associated products aim to help biopharmaceutical and biotech companies accelerate the development of therapeutic antibodies, and gene or cell therapy products with an integrated platform from the very beginning of drug discovery stage down to pre-clinical development stage and clinical development stage.

Results

During the Reporting Period, the revenue generated from biologics development services was approximately US$20.7 million, representing an increase of 55.6% as compared with approximately US$13.3 million for the year ended December 31, 2017. During the same period, the gross profit was approximately US$8.8 million, representing an increase of 39.7% as compared with approximately US$6.3 million for the year ended December 31, 2017. The increase in both revenue and gross profit was primarily attributable to the consistent development of our competitiveness in antibody drug pre-clinical development and novel antibody drugs and biosimilar development services.

Development strategies

The Company intends to (i) continue to enhance the antibody drug discovery platform by developing and introducing the most advanced technologies, including but not limited to fully-human antibody from transgenic mouse and human naïve library, (ii) exploit the power of single-domain antibody fused to Monoclonal Antibody ("**SMAB**") bi-specific antibody platform through the collaboration with external biopharma or biotech companies and continue the development of in-house new molecules, (iii) increase the capacity in pre-clinical and clinical development through the opening of new GMP facilities for both antibody drug and virus, (iv) establish independent business unit to operate the biologics development business (contract development and manufacturing organization ("**CDMO**")) and keep introducing senior management and research and development talents with international biopharma background, (v) penetrate the market in the United States by extending the business from drug discovery stage to pre-clinical development stage.

3. Industrial synthetic biology products

This segment grows from the leverage over our technical expertise and experience in synthetic biology and enzyme engineering. Our technical experience in protein engineering and synthetic biology facilitates the construction of non-pathogenic microbial strains to produce high-quality industrial enzymes through outsourced suppliers that can be used in a variety of industries, such as the food and feed processing, feed, pharmaceutical, and chemical industries. Synthetic biology technology has also brought a series of innovative breakthroughs in synthetic products for the pharmaceutical and chemical industries. Some of the fine chemical products have emerged. This part of the business has formed a certain market and has become a new support for sustainable growth in this segment.

Results

During the Reporting Period, the revenue generated from industrial synthetic biology products was approximately US$17.7 million, representing an increase of 50.0% as compared with approximately US$11.8 million for the year ended December 31, 2017. During the same period, the gross profit was approximately US$2.5 million, representing a decrease of 24.2% as compared with US$3.3 million for the year ended December 31, 2017. The increase in revenue was primarily attributable to (i) the launch of a number of innovative new products and market expansion, primarily due to our professional research and development team and continued research and development investment, (ii) the upgraded market strategy that repositioned the Company from a product seller to a solution provider, resulting in the involvement in customers' projects at the early stage with closer collaboration with customers and wining customers' trust, and (iii) the new fully operational manufacturing facility that improved the quality of products and ensured the stable supply to meet customers' demands.

Development strategies

The Company intends to apply synthetic biology principles and techniques to modify and improve the industrial enzyme producing microorganisms, enabling microorganisms to produce industrial enzymes with a higher yield and/or better performance properties. It intends to improve enzyme application performance and reduce customer enzyme costs to serve all relevant industries with leading technology. At the same time, the Company intends to produce pharmaceutical intermediates by focusing on enzymatic catalysis to promote the pharmaceutical intermediate enzyme catalytic technology and extend its business field to high-tech and high-profit industries.

4. *Cell therapy*

This segment was initiated from the Company's proprietary antibody development platform. Our strength in the optimization of CAR structures and the development of multi-specific antibody led to the CAR-T cell therapy against B-Cell Maturation Antigen (BCMA) for treating patients with relapsed or refractory multiple myeloma.

With an expanded talented group of scientists, engineers, directors and other advisors, the Company is one of the leaders in the field of cell therapy and is committed to the development of innovative cellular immunotherapies for the treatment of cancer. During the Year, significant progress had been made in major aspects.

Results

During the Reporting Period, the revenue generated from cell therapy was approximately US$51.6 million, representing an increase of 182.0% as compared with approximately US$18.3 million for the year ended December 31, 2017. During the same period, the gross profit was approximately US$51.6 million, representing an increase of 182.0% as compared with approximately US$18.3 million for the year ended December 31, 2017. The increase in revenue was primarily attributable to the collaboration with Janssen.

During the Year, the clinical trial research of LCAR-B38M in the United States went smoothly and the first milestone has been achieved. Legend Biotech USA Inc. was entitled to a milestone payment in the amount of US$25.0 million. For details, please refer to the Company's announcement dated December 17, 2018. With the collaboration project pushed forward and milestone achieved, it is believed that continuous revenue will be recognized in the following years.

In December 2018, at the American Society of Hematology (ASH) Annual Meeting, an updated analysis of LCAR-B38M phase I data was presented orally. CAR-T cell therapy LCAR-B38M displayed a manageable safety profile consistent with its known mechanism of action and demonstrated deep and durable responses in patients with relapsed or R/R MM. The results showed an overall response rate ("ORR") of 88% and a complete response ("CR") rate of 74%. A phase 1b/2 study of LCAR-B38M in R/R MM has been initiated in the United States. For details, please refer to the Company's announcement dated December 4, 2018.

Development strategies

The Company intends to apply antibody discovery, molecular biology and cellular engineering technologies to the discovery and development of immunotherapies with a focus on novel cell therapies for treating hematologic malignancies, solid tumors, autoimmune diseases and infectious diseases.

MANAGEMENT'S DISCUSSION AND ANALYSIS

FINANCIAL REVIEW

	2018	2017	Change
	US$'000	US$'000	US$'000
Revenue	**231,017**	152,649	78,368
Gross profit	**158,539**	104,591	53,948
Profit after income tax	**20,759**	27,005	(6,246)
Net profit excluding share-based payment expenses	**29,611**	29,816	(205)
Profit attributable to shareholders of the Company	**21,216**	26,123	(4,907)
Profit attributable to shareholders of the Company, excluding share-based payment expenses	**30,068**	28,934	1,134
Earnings per share *(US cent per share)*	**1.18**	1.52	(0.34)

Revenue

In 2018, the Group recorded revenue of US$231.0 million, representing an increase of 51.4% from US$152.6 million in 2017. This was primarily attributable to (i) the significant increase in revenue derived from the biologics business as well as significant increase in the number of orders and customers subsequent to years of development of both novel antibody drugs and biosimilar development services, which resulted in the launch of advanced and/or improved services and products and improvement in our production competitiveness, (ii) the increase in both the number of customers and their purchase volume of industrial synthetic biology products, primarily due to the upgraded products and the setting up of sales team, and (iii) the collaboration with Janssen.

Gross Profit

In 2018, the Group's gross profit increased by 51.5% to US$158.5 million from US$104.6 million in 2017. This was primarily attributable to the increase of sales, especially in the cell therapy segment. The gross profit margin of the Group remained stable in 2018.

Selling and Distribution Expenses

The selling and distribution expenses increased by 55.8% to US$38.8 million in 2018 from US$24.9 million in 2017. This was mainly attributable to (i) enhanced marketing activities including participating in high-profile exhibitions and industry conferences and enhanced advertisements placed to improve the Group's brand image, and (ii) increased investment into the commercial talent pool by recruiting more experienced personnel and improved incentive packages to enable our services and products to be able to penetrate into the key markets and improve the business.

Administrative Expenses

In 2018, the administrative expenses increased by 84.5% to US$40.6 million from US$22.0 million in 2017. This was mainly caused by the increased investment into talent pool by recruiting more experienced personnel and improved incentive package to improve the effectiveness and efficiency of management.

Research and Development Expenses

The research and development expenses increased by 309.4% to US$74.1 million in 2018 from US$18.1 million in 2017. This was mainly due to our continuous investment in research and development activities to secure and maintain high-level research and development projects, and our participation in certain new challenging research and development projects under the industrial synthetic biology products, cell therapy segments and novel antibody drugs and biosimilar development, which significantly strengthened our competitiveness in the market and improved our production efficiency.

Income Tax Expenses

The income tax expenses decreased from US$11.5 million in 2017 to US$1.9 million in 2018. The actual tax rate decreased from 29.9% in 2017 to 8.6% in 2018. The decrease of tax rate in 2018 was mainly caused by the tax reform in the United States and the increased tax credit obtained. The United States federal income tax rate was cut from 34% to 21% during the year, and PRC research and development expenses allowances raised from 50% to 75% for additional reduction for tax purpose; and at the same time, the research and development expenses increased significantly by the PRC subsidiaries.

Net Profit and Unaudited Adjusted Net Profit

Due to the aforementioned reasons, the net annual profit of the Group amounted to US$20.8 million in 2018, representing a decrease of 23.0% from US$27.0 million in 2017. To supplement the consolidated financial statements which are presented in accordance with the Hong Kong Financial Reporting Standards (the "**HKFRSs**"), the Group also used the unaudited adjusted net profit as an additional financial measure to evaluate the Group's financial performance by eliminating the impact of items that the Group does not consider indicative of the Group's business performance. The Group's adjusted net profit (excluding share-based payment expenses) was approximately US$29.6 million in 2018, representing a decrease of 0.7% from approximately US$29.8 million for the year ended December 31, 2017.

Trade Receivables

	2018	2017
Trade receivables turnover *(day)*	**71**	66

The trade receivables of the Group remained stable under the ongoing control and management of the Company.

Inventories

	2018	2017
Inventory turnover *(day)*	**55**	49

The increase of inventory turnover of the Group was mainly caused by the increase of the level of safe stock due to the expanded sales of the products.

Property, Plant, and Equipment

Property, plant and equipment include buildings, machinery equipment and construction in progress. As at December 31, 2018, the property, plant and equipment of the Group amounted to US$158.0 million, representing an increase of 96.3% from the property, plant and equipment of US$80.5 million as at December 31, 2017. This was mainly due to the construction of new factories to support the increased scale of production, especially for biologics business as well as cell therapy.

Intangible Assets

Intangible assets include software, patents and licenses. As at December 31, 2018, the Group's net intangible assets amounted to US$19.6 million, representing an increase of 684.0% from US$2.5 million as at December 31, 2017. The increase in intangible assets was mainly due to the patents and licenses obtained through the acquisition.

Working Capital and Financial Resources

As at December 31, 2018, the cash and cash equivalents of the Group amounted to US$494.6 million (2017: US$123.9 million). There was no restricted fund or loan.

Cash Flow Analysis

During the Reporting Period, the Group recorded an annual net cash inflow of US$295.4 million generated from operating activities.

During the Reporting Period, the annual cash outflow used in investing activities of the Group was US$181.7 million. This was mainly due to (i) the purchases of financial assets at fair value through profit or loss in the amount of US$70.0 million, (ii) the purchases of items of property, plant and equipment, other intangible assets and the prepayment of land lease payments for the purpose of enlarging production capability in the amount of US$79.6 million, (iii) the purchases of a shareholding in subsidiaries in the amount of US$27.6 million, (iv) the purchase of equity investments designated at fair value through other comprehensive income in the amount of US$5.0 million, (v) the purchase of investment in associates in the amount of US$1.9 million, (vi) the receipt of government grants of US$1.6 million, and (vii) the investment income of US$0.8 million.

During the Reporting Period, the cash inflow in financing activities of the Group was US$257.3 million. This was mainly due to (i) proceeds from issue of shares amounted to US$251.3 million, (ii) the acquisition of equity by minority shareholders of US$4.6 million, (iii) exercise of share options of US$2.7 million, (iv) proceeds from bank loans of US$10.5 million, (v) share repurchased of US$11.5 million, and (vi) the purchase of minority shareholders' equity in the amount of US$0.3 million.

Capital Expenditure and Capital Commitment

During the Reporting Period, the expenditure of purchasing intangible assets, namely software, patents and license, was US$0.7 million, while the expenditure of purchasing property, plant and equipment amounted to US$70.8 million and the expenditure of purchasing land use right amounted to US$8.1 million.

Material Acquisitions and Disposals

On January 11, 2018, the Group completed the acquisition of 100.0% of the entire issued share capital of CustomArray, Inc. from the selling shareholders, the details of which are set out in the announcements of the Company dated December 27, 2017 and January 12, 2018.

During the Reporting Period, the Company did not have any other material acquisition or disposal of subsidiaries, associates or assets.

Contingent Liabilities and Guarantees

As at December 31, 2018, the Group did not have any material contingent liabilities or guarantees.

Charges on Group Assets

As at December 31, 2018, bank balances of approximately US$11.0 million was pledged by GenScript (Hong Kong) Limited to secure a loan at JPY1.1 billion (equivalent to approximately US$9.9 million).

As at December 31, 2018, bank balances of approximately US$1.7 million was pledged by Nanjing Jinsirui Biotechnology Co., Ltd. and Nanjing Legend Biotech Co., Ltd. for notes payable at approximately US$1.6 million.

As of December 31, 2018, the Group did not have any other charges over its assets.

Current Ratio and Gearing Ratio

As at December 31, 2018, the Group's current ratio (current assets to current liabilities) was approximately 4.4 (as at December 31, 2017: 1.5); and gearing ratio (total liabilities to total assets) was approximately 46.2% (as at December 31, 2017: 54.7%).

MARKET RISKS

The Group is exposed to various types of market risks in the ordinary course of business, including foreign exchange risk, cash flow and fair value interest rate risk and credit risk. The Group manages its exposure to such risks and other market risks through regular operation and financial activities.

Foreign Exchange Risk

The Group mainly operates in the PRC and is exposed to foreign exchange risk arising from various currency exposures, primarily with respect to United States dollar. Foreign exchange risk arises from foreign currencies held in certain overseas subsidiaries. The Group did not hedge against any fluctuation in foreign currency during the Reporting Period. The management of the Group may consider entering into currency hedging transactions to manage the Group's exposure towards fluctuations in exchange rates in the future.

Cash Flow and Fair Value Interest Rate Risk

Other than bank balances with variable interest rate and short-term deposits with fixed interest rates, the Group has financial products of approximately US$73.5 million related to fair value interest rate risk.

Credit Risk

The carrying amounts of cash and cash equivalents, trade, other receivables and other current assets are the Group's maximum exposure to credit risk in relation to its financial assets. The objective of the Group's measures to manage credit risk is to control potential exposure to recoverability problems.

In respect of trade and other receivables, individual credit evaluations are performed on customers and counterparties. These evaluations focus on the counterparty's financial position and past history of making payments, and they take into account information specific to the counterparty as well as pertaining to the economic environment in which the counterparty operates. Monitoring procedures have been implemented to ensure that follow-up actions will be taken to recover overdue debts. Credit limits were granted to certain customers in consideration of their payment history and business performance. Prepayment agreements were sometimes entered into with certain customers from food companies, colleges, universities, and research institutes in China, as well as occasionally with other customers in the United States and Europe. In addition, the Group reviews the recoverable amount of each individual transaction and other receivable balance at the end of the year to ensure that adequate impairment losses are made for irrecoverable amounts.

Prospects

The year of 2018 was a significant one for the United States and China in terms of regulatory innovation, which boosted the progress of biotech and pharmaceutical industries.

The Food and Drug Administration ("**FDA**") of the United States approved 59 novel drugs either as new molecular entities ("**NMEs**") under new drug applications ("**NDAs**") or as new therapeutic biologics under biologics license applications, representing an increase of 28% compared with last year. Among them, 32% (19 NMEs) was identified as first-in-class novel drugs, and 58% (34 NMEs) were approved to treat rare or "Orphan" diseases. But the most magnificent implication, from a regulatory perspective, was that 41% (24 NMEs) were approved through Fast Track Designation while 24% (14 NMEs) upon Breakthrough Designation. Both mechanisms have expedited the FDA review and approval process with the hope to address medical needs and benefit patients and the society. On the other side of the globe, the Chinese government has rolled out favorable policies to shorten anti-cancer drugs approval cycles, and will grant preferred tax policies, such as lowering the VAT ratio to 3% to those drugs treating rare and orphan diseases whenever they are imported or domestically manufactured.

Financially speaking, 2018 was a phenomenal year for biotech financing in terms of investment across the global market. The Stock Exchange of Hong Kong Limited welcomed pre-revenue biotech companies, which instilled vigor into biotech and biopharma companies. In Mainland China, the upcoming opening of the Science and Technology Innovation Board at the Shanghai Stock Exchange may also mark a major milestone. As in the merger and acquisition field, followed by the acquisition of one of the major global CAR-T players by one of the leading biopharma companies, valued at US$10 billion in January 2018, the acquisition of such biopharma company by another biopharma company at a record-breaking amount of US$74 billion was announced in early January 2019. The news brought the CAR-T immune-cell therapy under the spotlight again due to its potential to cure a variety of tumors.

The United States Congress has approved a US$2 billion raise in funding, to US$39.1 billion, for the National Institutes of Health ("**NIH**"), a primary agency in the United States, responsible for supporting multidisciplinary biomedical and behavioral research. The raise represented an increase of 5% compared with the budget in 2018, making it the fourth year in a row that NIH has received a substantial increase in its budget.

Future Development Strategies

Looking forward to 2019, the Group continues to concentrate on implementing the following business strategies:

i. Further investment in research and development and production capacity, focusing on the following key business areas:

   a) Cell therapies – We will put increasing effort to this space. We aim to develop and gain advanced CAR-T, TCR (T cell receptor), and other gene therapy technologies, extend our current autologous platform into allogeneic platform. We intend to target onto hematologic malignancies, solid tumors, infectious diseases, and autoimmune diseases;

   b) Biological drug CDMO service platform – We aim to expand the application of our SMAB platform to provide advanced biological drug development services; further expand the GMP production capacity to enable fully integrated biological drug development and manufacturing capability; and

   c) Molecular biology CRO and product offering – to further strengthen our global leading position in gene synthesis and other life sciences technology products and services.

ii. Further strengthening of the sales and marketing forces in order to continue improving our market penetration into:

   a) Establish cell therapy commercial team in the United States and the China markets to prepare for the necessary procedures and certification with the intention to conduct a global commercial launch of the product of LCAR-B38M;

   b) Further strengthen the collaboration between our CDMO platform with the biotech and biopharma community by providing innovative solutions from both scientific and commercial perspectives;

   c) Enhance the penetration into the key accounts through strategic cooperation and to build up long term mutual beneficial relationships; and

   d) Further consolidate our leading position on molecular biology services and products market by pushing the boundary into broader life science applications.

iii. We aim to pursue strategic acquisition opportunities for cutting-edge techniques and business entities as they arise in order to complement the existing internal capacity and to speed up the overall growth.

EMPLOYEES

As at December 31, 2018, the Group had a total of approximately 2,620 employees. The Group had entered into employment contracts covering positions, employment conditions and terms, salaries, employees' benefits, responsibilities for breach of contractual obligations, and reason for termination with its employees. The remuneration package of the Group's employees includes basic salary, subsidies, and other employees' benefits, which are determined with reference to experience, number of years with the Group, and other general factors.

During the Reporting Period, the Company's total expenses on the remuneration of employees (including the Directors) was approximately US$94.0 million, representing approximately 40.7% of the total revenue of the Company.

On July 15, 2015, the Company adopted the pre-IPO share option scheme (the "**Pre-IPO Share Option Scheme**"). On December 7, 2015, the Company adopted the post-IPO share option scheme (the "**Post-IPO Share Option Scheme**"). On December 21, 2017, the Company approved and adopted the share option scheme of Legend Cayman, being the direct non-wholly owned subsidiary of the Company (the "**Subsidiary Share Option Scheme**", together with the Pre-IPO Share Option Scheme and the Post-IPO Share Option Scheme, the "**Share Option Schemes**"). No further share options have been granted under the Pre-IPO Share Option Scheme since the Company was listed on The Stock Exchange of Hong Kong (the "**Stock Exchange**").

9,600,000 share options with an exercise price of HK$26.46 per share and 3,000,000 share options with an exercise price of HK$14.04 per share were granted under the Post-IPO Share Option Scheme to Pan Yuexin, Guo Hongxin, Dai Zumian and certain employees on May 4, 2018 and November 29, 2018, respectively. Please refer to our announcements dated May 4, 2018 and November 29, 2018 for details. Save as disclosed, no other options have been granted under the Post-IPO Share Option Scheme during the Reporting Period.

During the Reporting Period, 8,010,000 share options were granted under the Subsidiary Share Option Scheme.

The number of employees of the Group categorized by function as of December 31, 2018 is set forth as follows:

	Number of employees	Percentage of total (%)
Function		
Production	1,295	49.4%
Sales and marketing	318	12.1%
Administration	386	14.7%
Research and development	423	16.2%
Management	198	7.6%
Total	2,620	100.0%

The Group invests in continuing education and training programmes for its employees with a view to constantly upgrading their skills and knowledge and providing the employees with an environment that encourages them to develop their career with the Group. The Group has arranged continuous on-the-job training for its employees. These training courses cover a broad spectrum, including technical know-how of various business segments, environmental, health and safety management systems, and mandatory training required by applicable laws and regulations.

In accordance with relevant PRC regulations on social insurance, the Group makes contribution to social insurance fund, including basic pension insurance, medical insurance, unemployment insurance, childbirth insurance, work-related injury insurance funds, and housing reserve fund for its employees.

DIRECTORS AND SENIOR MANAGEMENT

DIRECTORS

The Board currently consists of nine directors of the Company (the "**Directors**"), comprising three executive Directors, three non-executive Directors, and three independent non-executive Directors. The following table sets out certain information concerning our Directors.

Name	Age	Position	Date of Appointment
Executive Directors			
Zhang Fangliang	54	Chairman, executive Director and chief executive officer	May 21, 2015
Wang Ye	50	Executive Director and president	May 21, 2015
Meng Jiange	50	Executive Director and vice president of investor relations	August 24, 2015
Non-executive Directors			
Wang Luquan	49	Non-executive Director	May 21, 2015
Pan Yuexin	60	Non-executive Director	August 24, 2015
Wang Jiafen	67	Non-executive Director	November 26, 2018
Independent non-executive Directors			
Guo Hongxin	55	Independent non-executive Director	August 24, 2015
Dai Zumian	41	Independent non-executive Director	August 24, 2015
Pan Jiuan	50	Independent non-executive Director	November 26, 2018

Executive Directors

Dr. Zhang Fangliang (章方良), aged 54, is the co-founder, chairman, an executive Director, and chief executive officer of the Company. He was appointed as a Director on May 21, 2015 and redesignated as an executive Director on August 24, 2015. He is primarily responsible for the development, positioning, and strategy planning of the Group. He is one of the founders and a director of Genscript Corporation ("**GS Corp**"). Dr. Zhang is currently the director of all of the Company's subsidiaries (except for GenScript Japan Inc. ("**GS Japan**")), namely, Nanjing Jinsirui Biotechnology Co., Ltd.* (南京金斯瑞生物科技有限公司) ("**GS China**"), Jinsikang Technology (Nanjing) Co., Ltd.* (金斯康科技（南京）有限公司), Genscript Biotech Limited ("**GS BVI**"), GenScript (Hong Kong) Limited ("**GS HK**"), Genscript International Limited ("**GS International**"), GenScript USA Incorporated ("**GS USA**"), GenScript USA Holding Inc, Genscript Biotech (Netherlands) B.V., Jiangsu Genscript Biotech Co., Ltd (江蘇金斯瑞生物科技有限公司), Nanjing Bestzyme Bioengineering Co., Ltd.* (南京百斯杰生物工程有限公司) ("**Nanjing Bestzyme**"), Bestzyme Biotech Corporation ("**BSJ Cayman**"), Bestzyme Biotech Limited ("**BSJ BVI**"), Bestzyme Biotech USA Incorporated ("**BSJ US**"), Bestzyme Biotech HK Limited (香港百斯杰生物科技有限公司) ("**BSJ HK**"), Jinan Bestzyme Bio-Engineering Co., Ltd (濟南百斯杰生物工程有限公司), Jinan Nornoon Bio-Engineering Co., Ltd. Downtown Branch Company* (濟南諾能生物工程有限公司市中分公司), Hubei Bestzyme Biotechnology Co., Ltd.* (湖北百斯杰生物科技有限公司), Shanghai Jingrui Biotechnology Co., Ltd.* (上海璟睿生物技術有限公司), Nanjing Legend Biotechnology Co., Ltd.* (南京傳奇生物科技有限公司), Legend Biotech Corporation ("**Legend Cayman**"), Legend Biotech Limited ("**Legend BVI**"), Legend Biotech HK Limited (香港傳奇生物科技有限公司) ("**Legend HK**"), Legend Biotech (Netherlands) B.V., Legend Biotech Ireland Limited, Yangzte Investment (BVI) Limited, Yangzte Holdings (BVI) Limited, Yangzte Investment (HK) Limited, Yangzte Investment USA Inc., and Maple Bio (Nanjing) Co., Ltd. (楓楊生物研發（南京）有限公司). Dr. Zhang is the chairman of our nomination committee ("**Nomination Committee**") and oversees the sanctions risk control committee ("**Sanctions Risk Control Committee**").

Dr. Zhang has over 20 years of experience in the biotechnology industry. Prior to joining the Group, from 1995 to 2002, he worked as a postdoctoral research fellow and an associate principal scientist at Schering-Plough. Dr. Zhang worked in the tumour biology department during his postdoctoral research at Schering-Plough. Dr. Zhang was also one of the key team members for an anti-cancer drug, farnesyl transferase inhibitor. After Dr. Zhang's postdoctoral studies, he was recruited to the department of central nervous system and cardiovascular system at Schering-Plough. He became one of the project leaders focusing on G-protein coupled receptors and led a group of scientists to discover the drug target for a billion-dollar drug. As a result of this discovery, Dr. Zhang won a Presidential Award at Schering-Plough in 2001. From 2002 to the present, Dr. Zhang worked as the chief executive officer of the Group, where he was involved in a variety of key biotechnological research projects and provided guidance and directions to those biotechnological research projects. Dr. Zhang was also awarded the National Thousand Talents Programme Distinguished Expert* (國家千人計劃特聘專家) in 2010 and the Jiangsu Province High-Level Creative Talent Strategic Award* (江蘇省高層次創新創業人才引進計劃獎) in 2011. Dr. Zhang was awarded as the "Person of the Year" at the China Healthcare Summit 2018. Dr. Zhang has published more than 20 biotechnology related scientific papers in international peer-reviewed journals and has been the inventor for more than five patents in relation to biotechnological products and/or services.

Dr. Zhang obtained a Bachelor of Engineering degree from Chengdu College of Geology* (成都地質學院) (currently known as Chengdu University of Technology* (成都理工大學)) in the PRC in July 1984 and a Master of Science degree from Nanjing University in the PRC in July 1987. He also obtained a Doctor of Philosophy degree from Duke University in the U.S. in September 1995.

He is the brother-in-law of Mr. Chen Zhiqiang, the vice president of the China Business Department of the Company.

Ms. Wang Ye (王燁), aged 50, is the co-founder, an executive Director and president of the Company. She was appointed as a Director on May 21, 2015 and redesignated as an executive Director on August 24, 2015 and is primarily responsible for the Group's strategies and overall operational management. Ms. Wang is currently the director of BSJ Cayman, BSJ BVI, BSJ HK, BSJ US, Legend Cayman, Legend BVI, GS BVI, GS HK, GS International, GS USA, Qragen Biotech Corporation, Qragen Biotech (BVI) Limited, Qragen Biotech (HK) Limited and Maple Bio (Nanjing) Co., Ltd. Ms. Wang is the partner of Nanjing Genbest Enterprise Management Center (Limited Partner)* (南京金百企業管理中心(有限合夥)). Ms. Wang is a member of our remuneration committee ("**Remuneration Committee**").

She joined GS Corp in August 2002 and served as the sales account manager until January 2005. In the Group, she worked as the sales and marketing director from February 2005 to August 2009, vice-president of operations from September 2009 to August 2011, and executive vice-president of operations from September 2011 to March 2014. She has been the chief operating officer of GS Corp in April 2014 and redesignated as the president since December 1, 2017. Prior to joining the Group, she worked as the environmental monitoring engineer at Shenzhen Futian Environment Protection Surveillance Station* (深圳市福田區環境保護監測站) from July 1993 to July 2000.

Ms. Wang obtained a Bachelor of Science in Microbiology and a Master of Science degree from Wuhan University* (武漢大學) in the PRC in July 1990 and in August 1993, respectively. She also obtained a Master of Science in Computer Sciences degree from Bridgeport University in the United States in December 2003. She obtained an Executive Master of Business Administration degree from the China Europe International Business School* (中歐國際工商學院) in the PRC in August 2014.

Mr. Meng Jiange (孟建革), aged 50, was appointed as an executive Director of the Company on August 24, 2015 and is primarily responsible for the Company's finance and investor relations matters. He was appointed as the vice president of finance of the Group in April 2010 when he joined the Group and has been redesignated as the vice president of investor relations since December 1, 2017.

Mr. Meng has over 25 years of experience in finance and accounting. Prior to joining the Group, from July 1990 to October 1997, Mr. Meng worked at CCCC Guangzhou Dredging Co., Ltd.* (中交廣州航道局有限公司). From January 1999 to May 2000, Mr. Meng worked as the national finance manager at Guangdong Whirlpool Home Appliance Group* (廣東惠而浦家電集團). From May 2000 to July 2004, Mr. Meng worked at Schering-Plough China* (先靈葆雅中國公司) as a branch finance manager and the accounting and IT manager in the head office. From September 2004 to December 2007, Mr. Meng worked as the Asia finance controller of Saint Gobain Grains and Powder Division. From March 2008 to March 2010, Mr. Meng worked as the chief financial officer of Quay Magnesium.

Mr. Meng graduated from Changsha Communications Institute* (長沙交通學院) (currently known as Changsha University of Science Technology* (長沙理工大學)) in the PRC with a Bachelor of Engineering degree in July 1990.

Non-executive Directors

Dr. Wang Luquan (王魯泉), aged 49, is a co-founder and a non-executive Director of the Company. He was appointed as a Director on May 21, 2015 and redesignated as a non-executive Director of the Company on August 24, 2015 and is primarily responsible for the Group's strategies and operational management. From 2003 to 2014, Dr. Wang was the president of GS Corp and is still currently a director of GS Corp. Dr. Wang is currently the director of two of the Company's subsidiaries, namely, GS HK and GS USA.

Dr. Wang has nearly 25 years of experience in the biotechnology industry. Prior to joining the Group, from 1991 to 1996, he worked as a graduate research assistant, and from 1995 to 1996, a bioinformatics staff at Rutgers University in the United States. From 1996 to 2003, Dr. Wang was a senior principal scientist at Schering-Plough Research Institute.

Dr. Wang obtained a Bachelor of Science in Biochemistry degree from Shandong University* (山東大學) in the PRC in July 1991 and a Doctor of Philosophy degree from Rutgers University in the United States in October 1996.

Mr. Pan Yuexin (潘躍新), aged 60, was appointed as a non-executive Director of the Company on August 24, 2015 and is primarily responsible for the Group's strategies and operational management.

Mr. Pan graduated from the Zhejiang Branch of the Open University of China* (中央廣播電視大學浙江分校) with a Chinese language and literature diploma in July 1985. Mr. Pan graduated from the Chinese Academy of Social Sciences* (中國社會科學院) with a business law post graduate degree in July 1987.

Mr. Pan has been a partner of Jun He Law Offices (君合律師事務所) from October 1992 to May 2003 and July 2009 to February 2013, as well as a partner of Shanghai Ridingsheng Equity Investment Services Ltd.* (上海日鼎盛股權投資服務有限公司) since March 2013. Mr. Pan has been the chairman of Shaoxing Lvpai Enterprise Management Co, Ltd.* (紹興律派企業管理股份有限公司) from December 2018 and the chairman of Shanghai Lvpai Enterprise Management Consulting Co, Ltd.* (上海律派企業管理諮詢有限公司) from May 2016.

Mr. Pan was the committee member and secretary general of the Education Committee of the All China Lawyers Association, PRC* (中華全國律師協會) from 2001 to 2003. He was also the director of the Hainan and Shanghai branches of Jun He Law Offices (君合律師事務所) from October 1992 to May 2003 and deputy director of the Education Committee of the Shanghai Bar Association* (上海市律師協會) from 2000 to 2003.

Mr. Pan was an independent non-executive director of Jiangling Motors Co., Ltd.* (江鈴汽車股份有限公司, SZSE: 000550), which is listed on the Shenzhen Stock Exchange, from 2005 to 2009, Sinochem International Corporation* (中化國際貿易股份有限公司, SHA: 600500), which is listed on the Shanghai Stock Exchange, from 2002 to 2003, Shanghai Tunnel Engineering Co., Ltd.* (上海隧道工程股份有限公司, SHA: 600820), which is listed on the Shanghai Stock Exchange, from 2009 to 2016, GreatWall Movie and Television Co., Ltd.* (長城影視股份有限公司, SZSE: 002071), which is listed on the Shenzhen Stock Exchange, from 2011 to 2014, and Simei Media Co., Ltd* (思美傳媒股份有限公司, SZSE: 002712) from 2009 to 2012 before it was listed on the Shenzhen Stock Exchange in 2014.

Ms. Wang Jiafen (王佳芬), aged 67, was appointed as a non-executive Director of the Company on November 26, 2018 and is primary responsible for the Group's strategies and operational management.

Ms. Wang has over 40 years of experience in corporate management across various industries, including financial, food and retail services. She is currently the chairman of Shanghai Guanji Enterprise Management Consulting Co., Ltd.* 上海觀詰企業管理諮詢公司 and a coach of Shanghai Lingjiao Enterprise Management Consulting Co. Ltd* 上海領教企業管理諮詢有限公司. She has previously served as the vice chairman of Ping An Trust Co., Ltd.* 平安信託有限責任公司 from 2011 to 2015. From 2008 to 2011, she was a partner of Granite Global Ventures 紀源資本. From 1996 to 2008, Ms. Wang served as the chairman and general manager of Bright Dairy Co., Ltd.* 光明乳業股份有限公司 (SHA: 600597). From 1992 to 2002, she served as the chairman and general manager of Shanghai Diary Company* 上海市牛奶公司.

Ms. Wang has been serving as an independent director of UE Furniture Co, Ltd. 浙江永藝傢俱股份公司 (SHA: 603600) since 2017, an independent director of Zhende Medical Co., Ltd 振德醫療用品股份有限公司 (SHA: 603301) since 2016, a director of Meinian Onehealth Healthcare Holdings Co., Ltd 美年大健康產業控股股份有限公司 (SZSE: 002044) since 2013 and a director of Shanghai Xintonglian Packaging Co., Ltd 上海新通聯包裝股份有限公司 (SHA: 603022) since 2011. She has also served as an independent director of Eurocrane (China) Co., Ltd* 法蘭泰克重工股份有限公司 (SHA: 603966) from 2017 to 2018.

Ms. Wang obtained her college degree in business management from Shanghai Television University* 上海電視大學 in 1986 (now known as Shanghai Open University* 上海開放大學). She obtained her master degree in business administration from China Europe International Business School 中歐國際工商學院 in 2004.

Independent Non-executive Directors

Mr. Guo Hongxin (郭宏新), aged 55, was appointed as an independent non-executive Director of the Company on August 24, 2015. Mr. Guo is the chairman of our remuneration committee and a member of our audit committee ("**Audit Committee**").

From July 1983 to March 1998, Mr. Guo was working at the Nanjing School of Chemical Engineering. Since April 1998, he has been the chairman of the board of Sunpower Group Ltd, which was listed on the Singapore Exchange SESDAQ in March 2005 and has been listed on the Singapore Exchange Mainboard since August 2007 (SPWG: Singapore Exchange).

Mr. Guo obtained a Diploma in Chemical Thermal Engineering from Nanjing Chemical Engineering College* (南京化工動力專科學校) (currently known as Nanjing Normal University) in the PRC in July 1983. Mr. Guo obtained a senior engineering qualification from Nanjing University of Chemical Technology* (南京化工大學) (currently known as Nanjing Tech University* (南京工業大學)) in the PRC in March 1997. He also obtained a Doctor of Philosophy in Geotechnical Engineering degree from the Chinese Academy of Sciences* (中國科學院) in the PRC in January 2010. He also obtained an Executive Master of Business Administration degree from Tsinghua University* (清華大學) in the PRC in July 2014.

Mr. Dai Zumian (戴祖勉), aged 41, was appointed as an independent non-executive Director of the Company on August 24, 2015. Mr. Dai is the chairman of the Audit Committee, and a member of the Remuneration Committee and the Nomination Committee.

Mr. Dai is a member of the Chinese Institute of Certified Public Accounts as well as a fellow of Association of Chartered Certified Accountants. From July 1999 to August 2006, he gained over seven years' experience in auditing. His experience in auditing includes that gained at PricewaterhouseCoopers Zhongtian Certified Public Accountants (普華永道中天會計師事務所) from February 2005 to August 2006.

Mr. Dai was the qualified accountant and company secretary of Hisense Kelon Electrical Holdings Limited (海信科龍電器股份有限公司, HKSE: 921, SZSX: 000921), which is listed on the Main Board of the Hong Kong Stock Exchange and the Shenzhen Stock Exchange, from September 2006 to August 2007. Mr. Dai served as the chief financial officer of Shanghai Golden Monkey Food Joint Stock Co., Ltd.* (上海金絲猴食品股份有限公司) from February 2009 to April 2012 and of Xiezhong International Holdings Limited (協眾國際控股有限公司, HKSE: 3663), which is listed on the Main Board of the Hong Kong Stock Exchange, from May 2012 to June 2017.

Mr. Dai graduated from Shanghai University of Finance and Economics* (上海財經大學) in the PRC with a Bachelor of International Business Administration degree in June 1999. He also holds an Executive Master of Business Administration degree from China Europe International Business School* (中歐國際工商學院) in the PRC earned in October 2013.

Mr. Pan Jiuan (潘九安), aged 50, was appointed as an independent non-executive Director of the Company on November 26, 2018. Mr. Pan is the member of the Audit Committee and the Nomination Committee.

Mr. Pan has over 20 years of experience in human resources and management across various industries, including education, kitchen electrical appliances, office automated facilities, textile and garment. He is currently the chief human resources officer of Shanghai Lingjiao Enterprise Management Consulting Co. Ltd* 上海領教企業管理諮詢有限公司. From 2010 to 2013 and 2003 to 2010, he served as the corporate group director of human resources of each of K-Boxing Men's Wear (Shanghai) Co. Ltd.* 勁霸男裝（上海）有限公司 and Ningbo Fotile Kitchen Appliances Co. Ltd.* 寧波方太廚具有限公司, respectively. From 1994 to 2002, he was the deputy manager, manager, and senior manager of Minolta Industries (HK) Limited 美能達實業（香港）有限公司.

Mr. Pan obtained his bachelor degree in law from Central South University of Technology* 中南工業大學 (now known as Central South University* 中南大學) in 1991. He obtained his qualification as a lawyer in the People's Republic of China in 1994. He also obtained the national manager qualification* 國家一級經理人資格 from Shanghai Jiao Tong University Center for Quality Management* 上海交通大學卓越管理中心 in 2016. He further obtained the certificate of chief human resources officer from Remin University* 中國人民大學 in 2018.

* *For identification purpose only*

SENIOR MANAGEMENT

The following table sets out certain information concerning our senior management:

Name	Age	Year of joining the Group	Date of Appointment
Zhang Fangliang	(see above)	(see above)	(see above)
Wang Ye	(see above)	(see above)	(see above)
Meng Jiange	(see above)	(see above)	(see above)
Zhu Li	69	March 1, 2010	March 1, 2010
Chen Zhiqiang	50	August 15, 2004	January 1, 2014
Chou Chuan-Chu (resigned on May 8, 2018)	65	October 1, 2012	January 1, 2014
Zhang Chifa (ceased to be senior management on November 5, 2018)	43	June 5, 2005	January 1, 2014
Xu Yuan	51	March 28, 2018	March 28, 2018
Zhou Xu	49	November 5, 2018	November 5, 2018

Dr. Zhang Fangliang (章方良), is the co-founder, chairman, the executive Director, and chief executive officer of the Company. Please refer to the previous section headed "Executive Directors" for the biography of Dr. Zhang.

Ms. Wang Ye (王燁), is the co-founder, the executive Director, and president of the Company. Please refer to the previous section headed "Executive Directors" for the biography of Ms. Wang.

Mr. Meng Jiange (孟建革), is the executive Director and vice president of investor relations of the Company. Please refer to the previous section headed "Executive Directors" for the biography of Mr. Meng.

Dr. Zhu Li (朱力), aged 69, was appointed as the vice president of strategy of the Group in 2010. On April 1, 2017, Dr. Zhu was appointed as the chief strategy officer of the Company. He is responsible for in-license and new business development and is involved in corporate business strategy.

Dr. Zhu worked at Clontech Laboratories, Inc. in California, USA as a director of molecular biology from 1990 to 2000. Dr. Zhu worked at Cathay Biotech, Inc. as a vice president of research from July 2006 to December 2008.

Dr. Zhu obtained a Bachelor of Science of Biology degree from the East China Normal University (華東師範大學) in June 1982 and a Doctor of Philosophy from Stanford University in September 1990.

Mr. Chen Zhiqiang (陳志強), aged 50, was appointed the senior vice president of the Company in January 2014 and was primarily responsible for the Company's public relations. His position was changed to vice president of the China Business Department in March 2016.

Mr. Chen joined the Group in August 2004 and was since appointed as the senior vice president of our internal safety centre of the Company, and was then appointed as the senior vice president of our public relation department in January 2014. Prior to joining the Group, from February 1993 to March 2004, he worked for Wuhan Railway Bureau* (武漢鐵路局) as a trainee and as an electrician.

He graduated with a diploma in Computing Communications and Technology from Hubei Radio & TV University* (湖北廣播電視大學) in July 1992.

He is the brother-in-law of Dr. Zhang Fangliang, the co-founder, chairman, the executive Director, and the chief executive officer of the Company.

Dr. Xu Yuan (**許遠**), aged 51, was appointed as the chief executive officer of Legend and is primarily responsible for the operations and formulation of strategies of Legend.

Prior to joining Legend, Dr. Xu was the senior vice president of biologics and vaccines at Merck & Co., Inc. from 2015 to 2017. From 2014 to 2015, she worked as the vice president of biologics at Gilead Sciences Inc. From 2008 to 2014, she worked as the vice president at Novartis AG. With more than 25 years of biologics, biosimilar, vaccine, gene and cell therapy discovery, development, commercialization and life-cycle-management experience, Dr. Xu has contributed to the successful commercial launch of nearly 25 products.

Dr. Xu received her bachelor degree of biochemistry from the Nanjing University* (南京大學) in 1989 and her Ph.D. degree of biochemistry from the University of Maryland, College Park in 1993. She performed post-doctoral training in virology and gene therapy at the University of California, San Diego from 1993 to 1995.

Mr. Zhou Xu (周旭), aged 49, was appointed as the general manager of industrial synthetic biology products of Bestzyme and is primarily responsible for the development and formulation of strategies of Bestzyme.

Prior to joining the Group, Mr. Zhou worked as the vice president of Household Care China & Southeast Asia and Technical Industries China at Novozymes (China) Investment Co. Ltd. from 2016 to 2017 and its vice president of China Business Operations from 2015 to 2016. From 2011 to 2015, he worked as a sales and marketing director at Mosaic China. From 2006 to 2011, he worked as a sales director at Johnson & Johnson Vision Care (Shanghai), Inc.. From 1999 to 2005, he worked as a regional manager at Heineken China. From 1994 to 1999. he worked as a product manager at Inchcape JDH Limited.

Mr. Zhou obtained a Bachelor of Chinese Literature degree in Capital Normal University* (首都師範大學) in July 1994 and an Executive Master of Business Administration degree from Renmin University of China* (中國人民大學) in June 2010.

REPORT OF THE DIRECTORS

The Board is pleased to present the report of the Directors together with the audited consolidated financial statements of the Group for the year ended December 31, 2018.

CORPORATE INFORMATION AND GLOBAL OFFERING

The Company was incorporated in the Cayman Islands on May 21, 2015 as an exempted company with limited liability under the laws of the Cayman Islands. The Shares were listed on the Main Board of the Stock Exchange on December 30, 2015 (the "**Listing**" or the "**Listing Date**").

PRINCIPAL ACTIVITIES

The Company is a well-recognised life sciences research and application service and product provider that applies its proprietary technology to various fields from basic life sciences research to translational biomedical development, industrial synthetic products, and cell therapeutic solutions. The broad and integrated life sciences research and application service and product portfolio comprises four segments, namely, (i) bio-science services and products, (ii) biologics development services, (iii) industrial synthetic biology products, and (iv) cell therapy. The services and products are primarily used by scientists and researchers for conducting fundamental life sciences research, translational biomedical research, and early stage pharmaceutical development. Its development services are used by biopharmaceutical and biotech companies for the development of therapeutic antibodies, and gene or cell therapy products with an integrated platform. Its industrial synthetic biology products are also used by industry users of industrial enzymes, such as those in the food and feed industries. Its cell therapy products are used to treat refractory diseases including cancer and inflammatory diseases. Our customers are primarily located in North America, Europe, the PRC, Japan and the other Asia Pacific regions. The analysis of the principal activities of the Company's subsidiaries are set out in note 1 to the financial statements.

RESULTS AND APPROPRIATIONS

The consolidated results of the Group for the year ended December 31, 2018 are set out on pages 131 and 132 of this annual report.

FINAL DIVIDEND

In order to retain resources for the Group's business development, the Board did not recommend the payment of final dividend for the year ended December 31, 2018.

CLOSURE OF REGISTER OF MEMBERS

In order to determine the entitlement of shareholders to attend and vote at the forthcoming annual general meeting (the "**AGM**") to be held on Monday, May 20, 2019, the register of members of the Company will be closed from Wednesday, May 15, 2019 to Monday, May 20, 2019 (both dates inclusive), during which period no transfer of shares will be registered. All transfer documents, accompanied by the relevant share certificates, shall be lodged with the Company's branch share registrar in Hong Kong, Computershare Hong Kong Investor Services Limited, at Shops 1712-1716, 17th Floor, Hopewell Centre, 183 Queen's Road East, Wanchai, Hong Kong for registration no later than 4:30 p.m. on Tuesday, May 14, 2019.

FINANCIAL SUMMARY

A summary of the results and assets and liabilities of the Group for the last five financial years is set out on page 6 of this annual report. This summary does not form part of the audited consolidated financial statements.

USE OF THE NET PROCEEDS FROM LISTING

Net proceeds from the Listing of the Company (after deducting the underwriting fee and relevant expenses) amounted to approximately HK$527.3 million (equivalent to US$68.0 million). Such amounts had been used according to the allocation set out in the prospectus of the Company dated December 17, 2015 (the "**Prospectus**"). For the year ended December 31, 2018, the use of net proceeds from the Listing is set out as follows:

Item	Unutilized amount as at January 1, 2018 US$ million	Utilized amount During the Reporting Year US$ million	**Unutilized amount as at December 31, 2018 US$ million**
Enhance information technology capability	0.2	0.2	–
Acquire interests in or business of companies to complement existing operations	2.2	2.2	–
Reinforce the sales and marketing team	7.2	7.2	–
Supplement working capital and for general corporate purposed	6.8	6.8	–
Total	16.4	16.4	–

MAJOR CUSTOMERS AND SUPPLIERS

Major Customers

The revenue attributable to the top five customers of 2018 accounted for 27.8% of the Company's operating income for the year ended December 31, 2018. The revenue from the largest single customer accounted for 22.3% of the Company's operating income for the year ended December 31, 2018.

Major Suppliers

In 2018, the turnover attributable to the top five suppliers accounted for 15.4% of the Company's total purchases for the year ended December 31, 2018. The turnover of the largest single supplier, accounted for 7.0% of the Company's total purchases for the year ended December 31, 2018.

During the Reporting Period, to the knowledge of the Directors, none of the Directors or any of their close associates or any shareholders (which to the knowledge of the Directors own more than 5.0% of the Company's issued share capital) had an interest in any of the Company's top five customers or suppliers.

PROPERTY, PLANT, AND EQUIPMENT

Details of movements in the property, plant, and equipment of the Group during the Year are set out in note 13 to the financial statements in this annual report.

SHARE CAPITAL

As of December 31, 2018, 1,835,363,077 ordinary shares were issued. Details of movements in the share capital of the Company during the year ended December 31, 2018 are set out in note 30 to the financial statements in this annual report.

RESERVES

Details of movements in the reserves of the Company and the Group during the year are set out in the consolidated statement of changes in equity on pages 135 and 136 in this annual report.

DISTRIBUTABLE RESERVES

As of December 31, 2018, the Company's reserves are available for distribution, calculated in accordance with the provisions of the Companies Law of the Cayman Islands, Cap 22 (Law 3 of 1961, as consolidated and revised), amounted to US$112,554,000 (as of December 31, 2017: approximately US$93,228,000).

BANK LOANS AND OTHER BORROWINGS

As at December 31, 2018, Jinan Bestzyme Biological Engineering Co., Ltd* (濟南百斯杰生物工程有限公司) ("**Jinan Bestzyme**") borrowed short-term interest-bearing loans from Shanghe Branch Bank of China Post and Reserve Bank for a total amount of RMB4,000,000 (equivalent to approximately US$583,000), which were secured by credit. Jinan Bestzyme used such loans to purchase raw materials and replenish working capital.

As at December 31, 2018, Genscript (Hong Kong) Limited ("**GS HK**") borrowed unfixed-term interest-bearing loans from Citibank, N.A. Hong Kong Branch for a total amount of JPY1,100,000,000 (equivalent to approximately US$9,918,000), which were secured by deposit. GS HK used such loans to replenish working capital.

Save as above, the Group did not have any other outstanding, unpaid bank loans and/or other borrowings.

REPORT OF THE DIRECTORS

DIRECTORS

The Directors during the year ended December 31, 2018 and up to the date of this annual report were:

Executive Directors

Zhang Fangliang *(Chairman and Chief Executive Officer)*
Wang Ye *(President)*
Meng Jiange *(Vice President of Investor Relations)*

Non-executive Directors

Wang Luquan
Huang Zuie-Chin (also known as James Zuie Huang) (resigned on January 5, 2018)
Pan Yuexin
Wang Jiafen (appointed on November 26, 2018)

Independent Non-executive Directors

Guo Hongxin
Dai Zumian
Zhang Min (resigned on November 26, 2018)
Pan Jiuan (appointed on November 26, 2018)

Pursuant to the Memorandum and Articles of Association of the Company (the "**Articles**"), each of Zhang Fangliang, Wang Ye and Guo Hongxin will retire at the AGM and, being eligible, will offer himself or herself for re-election. Biographical details of the Directors to be re-elected at the AGM will be set out in the circular dated April 15, 2019 to the shareholders.

DIRECTORS' PROFILES

Biographical details of Directors and senior management of the Company is set out on pages 23 to 30 in this annual report.

CONFIRMATION OF INDEPENDENCE OF INDEPENDENT NON-EXECUTIVE DIRECTORS

The Company has received the annual confirmation from each of the independent non-executive Directors in respect of his/her independence pursuant to Rule 3.13 of the Listing Rules. The Company considers all of the independent non-executive Directors to be independent throughout the year ended December 31, 2018 in accordance with Rule 3.13 of the Listing Rules.

DIRECTORS' SERVICE CONTRACTS

Each of the executive Directors has entered into service contracts with the Company for a fixed term of three years commencing on December 1, 2018, which can be terminated before the expiration of the term by not less than six months' notice in writing served by either party on the other.

Each of the non-executive Directors has signed appointment letters with the Company for a term of three years. The effective date of the appointments of Mr. Wang Luquan and Mr. Pan Yuexin is August 24, 2018, and that of Ms. Wang Jiafen is November 26, 2018. Their appointments are subject to termination in accordance with their respective terms.

Each of the independent non-executive Directors has signed appointment letters with the Company for a term of three years. The effective date of the appointment of Mr. Guo Hongxin and Mr. Dai Zumian is August 24, 2018, and that of Mr. Pan Jiuan is November 26, 2018. Their appointments are subject to termination in accordance with their respective terms.

Save as disclosed herein, none of the Directors has entered into any service contract with the Group that is not determinable by the Company within one year without payment of compensation (other than statutory compensation).

DIRECTORS' INTERESTS IN TRANSACTIONS, ARRANGEMENTS AND CONTRACTS OF SIGNIFICANCE

None of the Company or any of its subsidiaries entered into, whether directly or indirectly, any transactions, arrangements and contracts of significance that a Director of the Company had a material interest in, that was related to the Company's business, and/or that subsisted during and up to the end of the Year.

MANAGEMENT CONTRACTS

No contracts concerning the management and administration of the whole or any substantial part of the businesses of the Company were entered into or existed during the Year.

REMUNERATION POLICIES

The Group's remuneration policy and structure for remuneration of the Directors and senior management of the Group are based on the Group's operating results, individual performance and comparable market statistics, and is reviewed by the Remuneration Committee periodically.

The remuneration of the non-executive Directors is recommended by the Remuneration Committee and is decided by the Board while the remuneration of the executive Directors is decided by the Remuneration Committee, having regard to the merit, qualifications, and competence of individual directors, the Group's operating results, and comparable market statistics.

The Company has also adopted the Pre-IPO Share Option Scheme, the Post-IPO Share Option Scheme and the Subsidiary Share Option Scheme. The purpose of the Share Option Schemes is to enable us to grant options to selected participants as incentives or rewards for their contributions. The Directors consider that the Share Option Schemes, with its broad basis of participation, will enable the Company or Legend Cayman to reward its employees, Directors, and other selected participants for their contributions.

During the year ended December 31, 2018, 9,600,000 share options with an exercise price of HK$26.46 per share and 3,000,000 share options with an exercise price of HK$14.04 were granted under the Post-IPO Share Option Scheme to Pan Yuexin, Guo Hongxin, Dai Zumian and certain employees on May 4, 2018 and November 29, 2018, respectively. Please refer to our announcements dated May 4, 2018 and November 30, 2018 for details. Save as disclosed, no other options have been granted under the Post-IPO Share Option Scheme during the Reporting Period. No option had been granted under the Pre-IPO Share Option Scheme once the Company is listed on the Stock Exchange on the Listing Date. For details of the Share Option Schemes, please see the paragraph headed "Share Option Schemes" below.

PERMITTED INDEMNITY PROVISION

The Articles provides that every Director is entitled to be indemnified out of the assets of the Company against all losses or liabilities which they may sustain or incur in or about the execution of the duties of their office or otherwise in relation thereto. A permitted indemnity provision for the benefit of the Directors is currently in force and was in force throughout the financial year. The Company had taken out and maintained appropriate insurance cover in respect of potential legal actions against its Directors and officers during the Reporting Period.

EQUITY-LINKED AGREEMENTS

Save for the Share Option Schemes of the Company as set out in this report, no equity-linked agreements were entered into by the Group, or existed during the year ended December 31, 2018.

SHARE OPTION SCHEMES

A. Pre-IPO Share Option Scheme

The Company adopted the Pre-IPO Share Option Scheme by a resolution of the then sole shareholder of the Company on July 15, 2015. The Pre-IPO Share Option Scheme is not subject to the provision of Chapter 17 of the Listing Rules as the Pre-IPO Share Option Scheme does not involve the grant of options by the Company to subscribe for Shares once the Company is listed on the Stock Exchange. No further options are granted under the Pre-IPO Share Option Scheme after the Listing.

Set out below are details of the outstanding options under the Pre-IPO Share Option Scheme:

Category/ Name of Grantee	Date of Grant	Vesting Period	Exercise Period	Exercise Price per Share (US$)	Number of share options: Outstanding as at January 1, 2018	Granted during the Reporting Year	Cancelled during the Reporting Year	Lapsed during the Reporting Year	Exercised during the Reporting Year	Outstanding as at December 31, 2018
Directors of the Company										
Wang Ye	January 15, 2008	December 31, 2010 – January 15, 2018 January 15, 2011 – January 15, 2018 December 31, 2011 – January 15, 2018 December 31, 2012 – January 15, 2018 December 31, 2013 – January 15, 2018	December 31, 2010 – January 15, 2018	0.01	846,727	–	–	6	846,721	–
	December 31, 2009	December 31, 2010 – December 31, 2019 December 31, 2011 – December 31, 2019 December 31, 2012 – December 31, 2019 December 31, 2013 – December 31, 2019 December 31, 2014 – December 31, 2019	December 31, 2010 – December 31, 2019	0.026	5,344,130	–	–	–	2,031,520	3,312,610

Category/ Name of Grantee	Date of Grant	Vesting Period	Exercise Period	Exercise Price per Share (US$)	Number of share options					
					Outstanding as at January 1, 2018	Granted during the Reporting Year	Cancelled during the Reporting Year	Lapsed during the Reporting Year	Exercised during the Reporting Year	Outstanding as at December 31, 2018
	July 15, 2010	July 15, 2011 – July 31, 2019 July 15, 2012 – July 31, 2019 July 15, 2013 – July 31, 2019 July 15, 2014 – July 31, 2019	July 15, 2011 – July 31, 2019	0.103	12,968,480	–	–	–	12,968,480	–
	May 22, 2012	December 31, 2012 – July 31, 2020 December 31, 2013 – July 31, 2020 December 31, 2014 – July 31, 2020	December 31, 2012 – July 31, 2020	0.103	34,008,093	–	–	–	–	34,008,093
	March 20, 2014	December 31, 2014 – July 31, 2025 December 31, 2015 – July 31, 2025 December 31, 2016 – July 31, 2025	December 31, 2014 – July 31, 2025	0.062	68,016,194	–	–	–	–	68,016,194

Category/ Name of Grantee	Date of Grant	Vesting Period	Exercise Period	Exercise Price per Share (US$)	Number of share options: Outstanding as at January 1, 2018	Granted during the Reporting Year	Cancelled during the Reporting Year	Lapsed during the Reporting Year	Exercised during the Reporting Year	Outstanding as at December 31, 2018
Meng Jiange	February 20, 2010	April 1, 2011 – December 31, 2020 April 1, 2012 – December 31, 2020 April 1, 2013 – December 31, 2020 April 1, 2014 – December 31, 2020 April 1, 2015 – December 31, 2020	April 1, 2011 – December 31, 2020	0.077	1,195,320	–	–	–	–	1,195,320
	May 1, 2013	May 1, 2016 – December 31, 2020 May 1, 2017 – December 31, 2020 May 1, 2018 – December 31, 2020 May 1, 2019 – December 31, 2020 May 1, 2020 – December 31, 2020	May 1, 2016 – December 31, 2020	0.103	1,943,320	–	–	–	–	1,943,320
	January 30, 2015	January 30, 2016 – July 31, 2025 January 30, 2017 – July 31, 2025 January 30, 2018 – July 31, 2025 January 30, 2019 – July 31, 2025 January 30, 2020 – July 31, 2025	January 30, 2016 – July 31, 2025	0.077	1,943,320	–	–	–	–	1,943,320

Category/ Name of Grantee	Date of Grant	Vesting Period	Exercise Period	Exercise Price per Share (US$)	Number of share options					
					Outstanding as at January 1, 2018	Granted during the Reporting Year	Cancelled during the Reporting Year	Lapsed during the Reporting Year	Exercised during the Reporting Year	Outstanding as at December 31, 2018
Wang Luquan	February 10, 2012	February 10, 2013 – July 31, 2019 February 10, 2014 – July 31, 2019	February 10, 2013 – July 31, 2019	0.103	3,886,640	–	–	–	670,000	3,216,640
Senior management of the Company										
Zhu Li	January 27, 2010	March 1, 2011 – July 31, 2019 March 1, 2012 – July 31, 2019 March 1, 2013 – July 31, 2019 March 1, 2014 – July 31, 2019 March 1, 2015 – July 31, 2019	March 1, 2011 – July 31, 2019	0.077	1,554,656	–	–	–	800,000	745,656
	March 28, 2014	December 31, 2014 – December 31, 2020 December 31, 2015 – December 31, 2020 December 31, 2016 – December 31, 2020 December 31, 2017 – December 31, 2020 December 31, 2018 – December 31, 2020	December 31, 2014 – December 31, 2020	0.077	1,943,320	–	–	–	–	1,943,320

Category/ Name of Grantee	Date of Grant	Vesting Period	Exercise Period	Exercise Price per Share (US$)	Number of share options: Outstanding as at January 1, 2018	Granted during the Reporting Year	Cancelled during the Reporting Year	Lapsed during the Reporting Year	Exercised during the Reporting Year	Outstanding as at December 31, 2018
Chou Chuan-Chu (resigned in May 2018)	October 1, 2012	October 1, 2016 – July 31, 2025 October 1, 2017 – July 31, 2025 October 1, 2018 – July 31, 2025 October 1, 2019 – July 31, 2025 October 1, 2020 – July 31, 2025	October 1, 2016 – July 31, 2025	0.103	1,671,255	–	–	1,340,891	330,364	–
	March 28, 2015	December 31, 2015 – December 31, 2020 December 31, 2016 – December 31, 2020 December 31, 2017 – December 31, 2020 December 31, 2018 – December 31, 2020	December 31, 2015 – December 31, 2020	0.077	485,830	–	–	242,915	242,915	–

Category/ Name of Grantee	Date of Grant	Vesting Period	Exercise Period	Exercise Price per Share (US$)	Number of share options					
					Outstanding as at January 1, 2018	Granted during the Reporting Year	Cancelled during the Reporting Year	Lapsed during the Reporting Year	Exercised during the Reporting Year	Outstanding as at December 31, 2018
Chen Zhiqiang	August 10, 2009	August 10, 2009 – December 31, 2019	August 10, 2009 – December 31, 2019	0.003	1,612,259	–	–	–	380,000	1,232,259
	March 28, 2014	December 31, 2014 – December 31, 2020 December 31, 2015 – December 31, 2020 December 31, 2016 – December 31, 2020 December 31, 2017 – December 31, 2020 December 31, 2018 – December 31, 2020	December 31, 2014 – December 31, 2020	0.077	831,320	–	–	–	–	831,320
Zhang Chifa (ceased to be senior management in November 2018)	March 28, 2014	December 31, 2014 – December 31, 2020 December 31, 2015 – December 31, 2020 December 31, 2016 – December 31, 2020 December 31, 2017 – December 31, 2020 December 31, 2018 – December 31, 2020	December 31, 2014 – December 31, 2020	0.077	1,943,320	–	–	–	–	1,943,320

Category/ Name of Grantee	Date of Grant	Vesting Period	Exercise Period	Exercise Price per Share (US$)	Number of share options: Outstanding as at January 1, 2018	Granted during the Reporting Year	Cancelled during the Reporting Year	Lapsed during the Reporting Year	Exercised during the Reporting Year	Outstanding as at December 31, 2018
Other employees										
Employees	October 17, 2005 – March 28, 2015	June 12, 2007 – December 31, 2025	June 12, 2007 – December 31, 2025	0.003-0.103	78,666,961	–	–	145,749	14,467,390	64,053,822
					218,861,145	–	–	1,729,561	32,737,390	184,394,194

Notes:

(1) The weighted average closing price immediately before the dates on which the options were exercised was HK$23.64.

(2) For further details of the Pre-IPO Share Option Scheme, please refer to Appendix V "**Statutory and General Information**" of the Prospectus and note 31 to the financial statements in this annual report.

B. POST-IPO SHARE OPTION SCHEME

The Company approved and adopted the Post-IPO Share Option Scheme by written resolutions of its then sole shareholder on December 7, 2015. The Post-IPO Share Option Scheme is subject to the requirements under Chapter 17 of the Listing Rules. Options to subscribe for 87,408,137 Shares had been granted (of which 3,300,000 options had lapsed) under the Post-IPO Share Option Scheme from the date of its adoption to December 31, 2018.

Set out below are details of the outstanding options under the Post-IPO Share Option Scheme:

						Number of share options					
Category/ Name of Grantee	Date of Grant	Vesting Period	Exercise Period	Exercise Price per Share (HK$)	Closing Price Per Share immediately before the date of grant (HK$)	Outstanding as at January 1, 2018	Granted during the Reporting Year	Cancelled during the Reporting Year	Lapsed during the Reporting Year	Exercised during the Reporting Year	Outstanding as at December 31, 2018
Directors of the Group											
Pan Yuexin	November 29, 2018	November 29, 2018 – November 28, 2023	November 29, 2018 – November 28, 2023	14.04	14.32	–	400,000	–	–	–	400,000
Guo Hongxin	November 29, 2018	November 29, 2018 – November 28, 2023	November 29, 2018 – November 28, 2023	14.04	14.32	–	400,000	–	–	–	400,000
Dai Zumian	November 29, 2018	November 29, 2018 – November 28, 2023	November 29, 2018 – November 28, 2023	14.04	14.32	–	400,000	–	–	–	400,000
Senior management of the Group											
Zhu Li	October 11, 2017	December 31, 2019 – October 10, 2027	December 31, 2019 – October 10, 2027	8.330	8.07	1,000,000	–	–	200,000	–	800,000

Category/ Name of Grantee	Date of Grant	Vesting Period	Exercise Period	Exercise Price per Share (HK$)	Closing Price Per Share immediately before the date of grant (HK$)	Number of share options: Outstanding as at January 1, 2018	Granted during the Reporting Year	Cancelled during the Reporting Year	Lapsed during the Reporting Year	Exercised during the Reporting Year	Outstanding as at December 31, 2018
Other employees											
	June 22, 2016	June 22, 2016 – June 21, 2026	June 22, 2016 – June 21, 2026	1.204	1.21	8,478,137	–	–	–	42,500	8,435,637
	September 23, 2016	September 23, 2017 – September 22, 2026	September 23, 2017 – September 22, 2026	2.406	2.30	11,700,000	–	–	–	255,000	11,445,000
	April 25, 2017	April 25, 2019 – April 24, 2027	April 25, 2019 – April 24, 2027	3.512	3.45	26,150,000	–	–	992,500	–	25,157,500
	October 11, 2017	July 25, 2019 – October 10, 2027	July 25, 2019 – October 10, 2027	8.330	8.07	10,650,000	–	–	275,000	–	10,375,000
	November 20, 2017	December 31, 2019 – November 19, 2027	December 31, 2019 – November 19, 2027	9.350	8.91	9,280,000	–	–	645,000	–	8,635,000
	May 4, 2018	January 1, 2019 to May 3, 2028	January 1, 2019 to May 3, 2028	26.46	26.65	–	9,600,000	–	–	–	9,600,000
	November 29, 2018	November 29, 2018 – November 28, 2028	November 29, 2018 – November 28, 2028	14.04	14.32	–	1,800,000	–	–	–	1,800,000
						67,258,137	12,600,000	–	2,112,500	297,500	77,448,137

For further details of the Post-IPO Share Option Scheme, please refer to Appendix V "Statutory and General Information" of the Prospectus and note 31 to the financial statements in this annual report.

C. SUBSIDIARY SHARE OPTION SCHEME

The Company approved and adopted the Subsidiary Share Option Scheme on December 21, 2017. The Subsidiary Share Option Scheme is subject to the requirements under Chapter 17 of the Listing Rules.

Options to subscribe for 8,085,000 shares of Legend Cayman had been granted (of which 26,000 options had lapsed) under the Subsidiary Share Option Scheme from the date of its adoption to the latest practicable date prior to the publication of this annual report.

Set out below are details of the outstanding options under the Subsidiary Share Option Scheme:

					Number of share options					
Category/ Name of Grantee	**Date of Grant**	**Vesting Period**	**Exercise Period**	**Exercise Price per Shares** (US$)	**Outstanding as at January 1, 2018**	**Granted during the Reporting Year**	**Cancelled during the Reporting Year**	**Lapsed during the Reporting Year**	**Exercise during the Reporting Year**	**Outstanding as at December 31, 2018**
Senior management of the Group										
Chou Chuan-Chu (resigned in May 2018)	December 26, 2017	December 31, 2019 – December 25, 2027	December 31, 2019 – December 25, 2027	0.5	500,000	–	–	500,000	–	–
Other Employees	December 26, 2017	December 31, 2019 – December 25, 2027	December 31, 2019 – December 25, 2027	0.5	7,600,000	–	–	1,253,000	–	6,347,000
	August 30, 2018	August 30, 2019 – August 30, 2026	August 30, 2019 – August 29, 2028	1	–	7,314,000	–	26,000	–	7,288,000
	December 31, 2018	December 31, 2019 – December 31, 2026	December 31, 2019 – December 30, 2027	1	–	696,000	–	-	–	696,000
					8,100,000	8,010,000	–	1,779,000	–	14,331,000

Apart from the movements as stated above, no options were granted, exercised, lapsed or cancelled under the Subsidiary Share Option Scheme during the year ended December 31, 2018.

SUMMARY OF THE SHARE OPTION SCHEMES

	Details	Pre-IPO Share Option Scheme	Post-IPO Share Option Scheme	Subsidiary Share Option Scheme
1.	Purpose	To recognise and acknowledge the contributions that the eligible participants have or may have made to the Group and to provide the eligible participants with an opportunity to have a personal stake in the Company with a view to (1) attract skilled and experienced personnel; (2) incentivise them to remain with the Group; and (3) motivate them to strive for the future development and expansion of the Group by providing them with the opportunity to acquire equity interests in the Company.	To provide participants with the opportunity to acquire proprietary interests in the Company and to encourage participants to work towards enhancing the value of the Company and its Shares for the benefit of the Company and its shareholders as a whole. The Post-IPO Share Option Scheme will provide the Company with a flexible means of either retaining, incentivising, rewarding, remunerating, compensating, and/or providing benefits to participants.	To provide participants with the opportunity to acquire proprietary interests in Legend Cayman and to encourage participants to work towards enhancing the value of Legend Cayman and its shares for the benefit of Legend Cayman and its shareholders as a whole. The Subsidiary Share Option Scheme will provide Legend Cayman with a flexible means of either retaining, incentivising, rewarding, remunerating, compensating and/or providing benefits to participants.
2.	Participants	Directors, employees, or consultants of any member of the Group.	The Board may offer to grant an option to any participants as the Board may, in its absolute discretion, select.	Directors (including executive directors, non-executive directors and independent non-executive directors) and employees of any member of the Group; provided that for any participant who is subject to the tax laws of the United States of America (the "**U.S. Participant**"), such participant must be a natural person and a director or employee of Legend Cayman or a subsidiary of Legend Cayman that is at least 50% owned by Legend Cayman.

	Details	Pre-IPO Share Option Scheme	Post-IPO Share Option Scheme	Subsidiary Share Option Scheme
3.	Maximum number of Shares to be allotted	As of December 31, 2018, options to subscribe for Shares in the aggregate of 184,394,194 were outstanding, representing approximately 10.05% of the issued share capital of the Company as of December 31, 2018. No further option may be granted under the Pre-IPO Share Option Scheme.	The maximum number of Shares in respect of which options may be granted under the Post-IPO Share Option Scheme was 160,000,000, representing approximately 8.72% of the issued share capital of the Company as of December 31, 2018. The maximum number of Shares that may be issued upon exercise of all outstanding options granted and yet to be exercised under the Post-IPO Share Option Scheme and any other scheme of the Company must not in aggregate exceed 30% of the total number of Shares in issue from time to time. Options to subscribe for 12,600,000 Shares had been granted (of which no options had lapsed) under the Post-IPO Share Option Scheme for the year ended December 31, 2018.	The maximum number of shares of Legend Cayman in respect of which options may be granted under the Subsidiary Share Option Scheme was 20,000,000, representing approximately 10% of the issued share capital of Legend Cayman as of December 31, 2018. The maximum number of shares of Legend Cayman that may be issued upon exercise of all outstanding options granted and yet to be exercised under the Subsidiary Share Option Scheme and other scheme of Legend Cayman must not exceed 30% of the shares of Legend Cayman in issue from time to time. Options to subscribe for 8,010,000 shares of Legend Cayman had been granted under the Subsidiary Share Option Scheme for the year ended December 31, 2018.
4.	Maximum – entitlement of each participant	–	1% of the issued share capital of the Company from time to time within any 12 month period up to the date of the latest grant.	1% of the issued share capital of Legend Cayman from time to time within any 12 month period up to the date of the latest grant.

	Details	Pre-IPO Share Option Scheme	Post-IPO Share Option Scheme	Subsidiary Share Option Scheme
5.	Option period	At any time and from time to time up to December 31, 2025.	The period of time to be notified by the Board to each grantee at the time of making an offer, which shall be determined by the Board in its absolute discretion at the time of grant, but such period must not exceed 10 years from the date of grant of the relevant option. The terms of an offer may include any minimum periods for which an option must be held and/or any minimum performance targets that must be reached, before the options can be exercised in whole or in part, and may include at the discretion of the Board other terms imposed (or not imposed), either on a case by case basis or generally.	The period of time to be notified by the board of Legend Cayman to each grantee at the time of making an offer, which shall be determined by the board of Legend Cayman in its absolute discretion at the time of grant, but such period must not exceed 10 years from the date of grant of the relevant option (or 5 years in the case of an incentive stock option within the meaning of Section 422 of the United States Internal Revenue Code of 1986 (the "**Internal Revenue Code**") granted to a U.S. Participant who is an employee of Legend Cayman or a subsidiary corporation (as defined in Section 1.424-1(f)(1) and (2) of the U.S. Treasury Regulations) of Legend Cayman, who owns (or is treated as owning) stock possessing more than 10% of the total combined voting power of all classes of stock of the corporation employing the grantee or of any parent corporation or subsidiary corporation as defined in Section 1.424-1(f)(1) and (2) of the U.S. Treasury Regulations). The terms of an offer may include any minimum periods for which an option must be held or any performance targets that must be reached, before the options can be exercised, and may include at the discretion of the board of Legend Cayman other terms imposed either on a case by case basis or generally.

	Details	Pre-IPO Share Option Scheme	Post-IPO Share Option Scheme	Subsidiary Share Option Scheme
6.	Acceptance of offer	On acceptance of the offer of the option, the participant shall execute and return an acceptance letter in accordance with the terms and conditions set by the Company.	An option shall remain open for acceptance by the participant concerned for a period of 21 days from the date of the offer. HK$1.00 is payable by the grantee to the Company on acceptance of the offer of the option.	An option shall remain open for acceptance by the participant concerned for a period of 21 days from the date of the offer. US$1.00 (or its equivalent in RMB) is payable by the grantee to Legend Cayman on acceptance of the offer of the option.
7.	Exercise Price	From US$0.003 to US$0.103	The Subscription Price shall be no less than the highest of: (1) the closing price of the Shares as stated in the daily quotations sheet issued by the Stock Exchange on the date of grant; (2) the average closing price of the Shares as stated in the daily quotations sheets issued by the Stock Exchange for the five business days immediately preceding the date of grant (provided that in the event that any option is proposed to be granted within a period of less than five business days after the trading of the Shares first commences on the Stock Exchange, the new issue price of the Shares for the Global Offering shall be used as the closing price for any business day falling within the period before listing of the Shares on the Stock Exchange); and (3) the nominal value of a Share on the date of grant.	The Subscription Price payable by any grantee (including a non-U.S. Participant or a U.S. Participant) shall be no less than the value of a share of Legend Cayman on the date of grant, determined by the board of Legend Cayman in good faith with reference to a valuation report to be obtained from time to time and in a manner that complies with Sections 409A and 422 of the Internal Revenue Code, subject to rounding adjustments as may be determined by the board of Legend Cayman at its absolute discretion, provided that with respect to the period from the date when the Company resolves to seek a separate listing of Legend Cayman on The Stock Exchange of Hong Kong Limited, Growth Enterprise Market, or an overseas stock exchange and up to the listing date (if any), the rules under note (2) to rule 17.03(9) of the Listing Rules is complied with.

	Details	Pre-IPO Share Option Scheme	Post-IPO Share Option Scheme	Subsidiary Share Option Scheme
8.	Remaining life of the scheme	The Pre-IPO Share Option Scheme expired on December 30, 2015.	It shall be valid and effective for a period of ten years commencing on December 7, 2015.	It shall be valid and effective for a period of ten years commencing on December 21, 2017.

REMUNERATION OF DIRECTORS AND FIVE HIGHEST PAID INDIVIDUALS

Details of the remuneration of Directors and the five highest paid individuals are set out in note 8 and note 9 to the financial statements in this annual report.

CHANGES TO INFORMATION OF DIRECTORS

With effect from January 5, 2018, Mr. Huang Zuie-Chin (also known as James Zuie Huang) resigned as a non-executive director of the Company in order to devote more time to his other work commitments. Please refer to the announcement of the Company dated January 5, 2018 for more details. With effect from November 26, 2018, Ms. Zhang Min resigned as an independent non-executive director of the Company in order to devote more time to her other work commitments. On the same date, Ms. Wang Jiafen and Mr. Pan Jiuan were appointed as a non-executive Director and an independent non-executive Director, respectively. Please refer to the announcement of the Company dated November 26, 2018 for more details. Upon specific enquiry by the Company and following confirmations from the Directors, there had been no other change to any of the information required to be disclosed in relation to any Director pursuant to paragraphs (a) to (e) and (g) of Rule 13.51 (2) of the Listing Rules during the Reporting Period that required to be disclosed pursuant to Rule 13.51B(1) of the Listing Rules.

DIRECTORS' AND CHIEF EXECUTIVE'S INTERESTS AND SHORT POSITIONS IN SHARES, UNDERLYING SHARES, AND DEBENTURES

As of December 31, 2018, the interests and short positions of the Directors and chief executive of the Company in the Shares, underlying Shares, and debentures of the Company or its associated corporations (within the meaning of Part XV of the Securities and Futures Ordinance (the "**SFO**")), which were required to be notified to the Company and the Stock Exchange pursuant to Divisions 7 and 8 of Part XV of the SFO (including interests and short positions, which they were taken or deemed to have under such provisions of the SFO), or were required, pursuant to Section 352 of the SFO, to be entered in the register referred to therein, or were required to be notified to the Company and the Stock Exchange pursuant to the Model Code for Securities Transactions by Directors of Listed Issuers (the "**Model Code**") contained in Appendix 10 to the Listing Rules, are set out as follows:

Long positions in the ordinary Shares and underlying Shares of the Company as of December 31, 2018

Name of Director	Capacity/Nature of Interest	Number of Shares held/ interested	Approximate Percentage of Shareholding (%)
Zhang Fangliang	Interest in controlled corporation (Note 1), parties acting in concert (Note 2) and founder of a discretionary trust (Note 8)	995,955,561	54.26
Wang Luquan	Interest in controlled corporation (Note 3), parties acting in concert (Note 2), beneficial owner (Note 4) and other (Notes 8 and 9)	995,955,561	54.26
Wang Ye	Interest in controlled corporation (Note 5), parties acting in concert (Note 2), beneficial owner (Note 6) and founder of a discretionary trust (Note 9)	995,955,561	54.26
Meng Jiange	Beneficial owner (Note 7)	5,081,960	0.28
Pan Yuexin	Beneficial owner (Note 10)	400,000	0.02
Guo Hongxin	Beneficial owner (Note 11)	400,000	0.02
Dai Zumian	Beneficial owner (Note 12)	400,000	0.02

* The percentage has been calculated based on 1,835,363,077 Shares in issue as at December 31, 2018.

Notes:

(1) As of December 31, 2018, Zhang Fangliang held approximately 28.73% of the issued share capital of GS Corp and was deemed, or taken to be interested in, all the Shares held by GS Corp for the purpose of the SFO.

(2) On August 14, 2008, Zhang Fangliang, Wang Luquan, and Wang Ye entered into the GS Corp Shareholder Voting Agreement, whereby Zhang Fangliang, Wang Luquan, and Wang Ye agreed to vote unanimously in the shareholder meetings of GS Corp and, contemporaneously, proxies were conferred by Wang Luquan and Wang Ye to Zhang Fangliang authorising Zhang Fangliang to vote and exercise all voting and related rights with respect to the shares that each of Wang Luquan and Wang Ye beneficially owned in GS Corp, which held 887,402,024 Shares. On May 29, 2015, Wu Yongmei signed a proxy agreement whereby she conferred all her voting and related rights in relation to all the shares that she owned in GS Corp, i.e. 102,089,792 shares of GS Corp to Zhang Fangliang.

(3) As of December 31, 2018, Wang Luquan held approximately 23.69% in the issued share capital of GS Corp. Pursuant to the GS Corp Shareholder Voting Agreement and for the purpose of the SFO, Wang Luquan was deemed, or taken to be interested in, all the Shares held by GS Corp.

(4) Wang Luquan held 3,216,640 underlying Shares under the options conditionally granted to him under the Pre-IPO Share Option Scheme.

(5) As of December 31, 2018, Wang Ye held approximately 6.10% in the issued share capital of GS Corp. Pursuant to the GS Corp Shareholder Voting Agreement and for the purpose of the SFO, Wang Ye was deemed, or taken to be interested in, all the Shares held by GS Corp.

(6) Wang Ye held 105,336,897 underlying Shares under the options conditionally granted to her under the Pre-IPO Share Option Scheme.

(7) Meng Jiange held 5,081,960 underlying Shares under the options conditionally granted to him under the Pre-IPO Share Option Scheme.

(8) On October 12, 2017, Zhang Fangliang set up 2017 Fang Liang Zhang Trust (the "**Zhang Trust**"), an irrevocable discretionary family trust, with his three children and their respective living issue as beneficiaries. Jin Weihong, the spouse of Zhang Fangliang, is the trustee of the Zhang Trust. Zhang Fangliang transferred 5 million shares and 50 million shares of GS Corp to the Zhang Trust on October 17, 2017 and December 1, 2017, respectively. Zhang Trust transferred 881,500 shares of GS Corp to Zhang Fangliang on December 5, 2018, on the same day Zhang Fangliang transferred 533,000 and 820,000 shares of GS Corp to Charity A and Charity B at nil consideration, respectively. The Zhang Trust (through its trustee), held approximately 11.85% of the entire issued share capital of GS Corp and was deemed, or taken to be interested in, all the Shares held by GS Corp for the purpose of the SFO.

(9) On October 5, 2017, Wang Ye set up 2017 Wang Ye Family Trust (the "**Wang Trust**"), an irrevocable discretionary family trust, with her spouse, her son and his living issue as beneficiaries. Hu Zhiyong, the spouse of Wang Ye, is the trustee of the Wang Trust. Wang Ye transferred 2.5 million shares and 25 million shares of GS Corp to the Wang Trust on October 17, 2017 and December 1, 2017, respectively. Wang Trust transferred 354,600 shares of GS Corp to Wang Ye on December 5, 2018. The Wang Trust (through its trustee) held approximately 5.94% of the entire issued share capital of GS Corp and was deemed, or taken to be interested in, all the Shares held by GS Corp for the purpose of the SFO.

(10) Pan Yuexin held 400,000 underlying Shares under the options granted to him under the Post-IPO Share Option Scheme.

(11) Guo Hongxin held 400,000 underlying Shares under the options granted to him under the Post-IPO Share Option Scheme.

(12) Dai Zumian held 400,000 underlying Shares under the options granted to him under the Post-IPO Share Option Scheme.

DIRECTORS' RIGHTS TO ACQUIRE SHARES OR DEBENTURES

Save as disclosed in the section headed "Share Option Schemes", no rights to acquire benefits by means of the acquisition of Shares in or debentures of the Company were granted to any Director or their respective spouses or children under 18 years of age, nor were any such rights exercised by them, nor was the Company or any of its subsidiaries a party to any arrangement to enable the Directors, or their respective spouses or children under 18 years of age, to acquire such rights in any other body corporate at any time during the Year.

SUBSTANTIAL SHAREHOLDERS' INTEREST IN SHARES

As of December 31, 2018, within the knowledge of the Directors, the following persons (other than the Directors or chief executive of the Company) had an interest or a short position in the Shares or underlying Shares that would be required to be disclosed to the Company under the provisions of Divisions 2 and 3 of Part XV of the SFO or as recorded in the register required to be kept pursuant to Section 336 of the SFO:

Long position in the ordinary Shares of the Company as of December 31, 2018

Name	Capacity/Nature of Interest	Number of Shares/ underlying Shares held/ interested	Approximate Percentage of Shareholding (%)
GS Corp *(Note 1)*	Beneficial owner	887,402,024	48.35
Jin Weihong *(Note 2)*	Interest in controlled corporation, parties acting in concert and trustee	995,955,561	54.26
Hu Zhiyong *(Note 3)*	Interest in controlled corporation, parties acting in concert and trustee	995,955,561	54.26

* The percentage has been calculated based on 1,835,363,077 Shares in issue as at December 31, 2018.

Notes:

(1) As of December 31, 2018, GS Corp is a company incorporated in the State of Delaware in the United States and owned as to approximately 28.73%, approximately 11.85%, approximately 23.69%, approximately 10.64%, approximately 0.77%, approximately 10.95%, approximately 6.1%, approximately 5.94%, approximately 1.04%, approximately 0.11% and approximately 0.18% by Zhang Fangliang, the Zhang Trust, Wang Luquan, Wu Yongmei, the Wu 2017 Trust*(Note 4)*, the Wu 2018 Trust*(Note 4)*, Wang Ye, the Wang Trust, Mu Yingjun, Charity A and Charity B, respectively.

(2) On October 12, 2017, Zhang Fangliang set up the Zhang Trust, an irrevocable discretionary family trust, with his three children and their respective living issue as beneficiaries. Jin Weihong, the spouse of Zhang Fangliang, is the trustee of the Zhang Trust. Zhang Fangliang transferred 5 million shares and 50 million shares of GS Corp to the Zhang Trust on October 17, 2017 and December 1, 2017, respectively. Zhang Trust transferred 881,500 shares of GS Corp to Zhang Fangliang on December 5, 2018, on the same day Zhang Fangliang transferred 533,000 and 820,000 shares of GS Corp to Charity A and Charity B at nil consideration, respectively. Jin Weihong, as the trustee of the Zhang Trust, held approximately 11.85% of the entire issued share capital of GS Corp and was deemed, or taken to be interested in, all the Shares held by GS Corp for the purpose of the SFO.

(3) On October 5, 2017, Wang Ye set up the Wang Trust, an irrevocable discretionary family trust, with her spouse, her son and his living issue as beneficiaries. Hu Zhiyong, the spouse of Wang Ye, is the trustee of the Wang Trust. Wang Ye transferred 2.5 million shares and 25 million shares of GS Corp to the Wang Trust on October 17, 2017 and December 1, 2017, respectively. Wang Trust transferred 354,600 shares of GS Corp to Wang Ye on December 5, 2018. Hu Zhiyong, as the trustee of the Wang Trust, held approximately 5.94% of the entire issued share capital of GS Corp and was deemed, or taken to be interested in, all the Shares held by GS Corp for the purpose of the SFO.

(4) On December 17, 2017, Wu Yongmei set up 2017 Wu Yongmei Trust (the "**Wu 2017 Trust**"), an irrevocable family trust, with her two children and their respective living issue as beneficiaries. Wu Yongmei and her two children, are the trustees of the Wu 2017 Trust. On October 29, 2018, Wu Yongmei set up 2018 Wu Yongmei Trust (the "**Wu 2018 Trust**"), an irrevocable family trust, with her two children and their respective living issue as beneficiaries. Wu Yongmei is the trustee of the Wu 2018 Trust. On November 1, 2018, Wu Yongmei transferred 3.5 million shares of GS Corp to the Wu 2017 Trust and 50 million shares of GS Corp to the Wu 2018 Trust.

Save as disclosed above, as of the date of this annual report, the Directors have not been aware of any person who had interests or short positions in the Shares or underlying Shares that would be required to be disclosed to the Company under the provisions of Divisions 2 and 3 of Part XV of the SFO as recorded in the register and required to be kept pursuant to Section 336 of the SFO.

PURCHASE, REDEMPTION, OR SALE OF THE LISTED SECURITIES

During the year ended December 31, 2018, the Company repurchased 6,278,000 shares on the Stock Exchange for an aggregate consideration of HK$89,702,560 before expenses. The repurchased shares were subsequently cancelled. The repurchase was effected by the Board for the enhancement of value for the Company and the Shareholders in the long term.

Details of the shares repurchased are as follows:

Month of purchase in 2018	Number of shares purchased	Repurchased price per Share		Aggregate consideration
		Highest (HK$)	Lowest (HK$)	(HK$)
September	2,360,000	16.06	13.5	35,908,880
October	3,918,000	15.06	10.96	53,793,680
Total	6,278,000			89,702,560

Save as disclosed in the table above, the Group had not purchased, sold, or redeemed any of the Company's listed securities during the year ended December 31, 2018.

TOP-UP PLACING

On June 7, 2018, the Company, Genscript Corporation, one of the controlling shareholders of the Company (the "**Vendor**"), and J.P. Morgan Securities (Asia Pacific) Limited and Goldman Sachs (Asia) L.L.C. (the "**Placing Agents**") completed a placing of the Vendor's 75,000,000 ordinary shares in the Company by the Placing Agents on a fully underwritten basis to not less than six placees at the price of HK$26.50 per share (the "**Vendor Placing**") pursuant to a placing and subscription agreement dated June 5, 2018 (the "**Placing and Subscription Agreement**"). On June 13, 2018, the Vendor completed the subscription of an aggregate of 75,000,000 shares of the Company at the price of HK$26.50 per share pursuant to the Placing and Subscription Agreement (the "**Subscription**", together with the Vendor Placing, the "**Top-Up Placing**"). The net proceeds, after deducting commissions, fees and expenses payable to the Placing Agents and other incidental expense, is HK$1,971,702,660.50 (equivalent to approximately US$251.3 million). A detailed breakdown and description of the use of the net proceeds from the Top-Up Placing is set forth as follows:

Item	Amount expected to be utilized US$ million	Utilized amount during the Reporting Period US$ million	Unutilized amount as at December 31, 2018 US$ million	Intended year of application of unutilized amount
Building up CAR-T R&D and production facility in China, the US and Europe	125.0	24.3	100.7	2019 to 2020
Global team building for the Group's talent program and CAR-T therapies, including regulatory, R&D, production and commercialization	25.0	6.0	19.0	2019 to 2020
Building up the GMP manufacturing facilities for plasmid and biologics products	75.0	2.6	72.4	2019 to 2020
General working capital purpose	26.3	–	26.3	2019 to 2020
Total	251.3	32.9	218.4	

Please refer to the announcements dated June 4, 2018, June 5, 2018, June 8, 2018, June 13, 2018 and June 14, 2018 for details of the Top-Up Placing.

On June 7, 2018, Ms. Wang Ye 王燁, an executive director, the president and one of the controlling shareholders of the Company ("**Ms. Wang**"), and the Placing Agents completed a placing of Ms. Wang's 15,000,000 ordinary shares in the Company by the Placing Agents on a fully underwritten basis to not less than six placees at the price of HK$26.50 per share pursuant to a placing agreement dated June 5, 2018 (the "**Wang Placing**"). Please refer to the announcements dated June 4, 2018, June 5, 2018, June 8, 2018, June 13, 2018, June 14, 2018 for details of the Wang Placing.

PRE-EMPTIVE RIGHTS

There are no provisions for pre-emptive rights under the Articles or the laws of the Cayman Islands that would oblige the Company to offer new shares on a pro rata basis to existing shareholders.

NON-COMPETING UNDERTAKINGS

The controlling shareholders of the Company, namely Zhang Fangliang, Wang Luquan, Wang Ye and GS Corp, or any of them (the "**Controlling Shareholders**"), have signed the deed of non-competition (the "**Deed of Non-competition**") dated December 7, 2015, pursuant to which, each of our Controlling Shareholders shall, and shall procure that their respective close associates and/or companies controlled by them (other than the Group) (i) not, directly or indirectly, either on its own account or in conjunction with or on behalf of any person, firm, or company, among other things, carry on, participate, or be interested or engage in or acquire or hold (in each case whether as a shareholder, director, partner, agent, employee, or otherwise, and whether for profit, reward, or otherwise) any activity or business that competes or is likely to compete, directly or indirectly, with the business of the Group referred to in the Prospectus and any other business from time to time conducted, carried on, or contemplated to be carried on by any member of the Group or in which any member of the Group is engaged or has invested, or which any member of the Group has otherwise publicly announced its intention to enter into, engage in, or invest in (whether as principal or agent and whether undertaken directly or through any body corporate, partnership, joint venture, or other contractual or other arrangement) (the "**Restricted Activity**"), (ii) provide all information requested by the Company that is necessary for an annual review by our independent non-executive Directors of its compliance with the Deed of Non-competition and the enforcement of the Deed of Non-competition, (iii) procure the Company to disclose decisions on matters reviewed by our independent non-executive Directors relating to the compliance and enforcement of the Deed of Non-competition, either through the annual report or by way of announcement(s) to the public, and (iv) make an annual declaration on compliance with its undertaking under the Deed of Non-competition in the annual reports of the Company as our independent non-executive Directors think fit and/or as required by the relevant requirements under the Listing Rules. Details of the Deed of Non-competition are set out in the section headed "Relationship with Controlling Shareholders" of the Prospectus.

The Company has received the annual confirmation of controlling shareholders in respect of their compliance with the non-competition undertakings under the Deed of Non-competition during the year ended December 31, 2018.

The independent non-executive Directors also reviewed the Controlling Shareholders' compliance with the non-competition undertakings. The independent non-executive Directors confirmed that the Controlling Shareholders were not in breach of the non-competition undertakings during the year ended December 31, 2018.

DIRECTORS' INTERESTS IN COMPETING BUSINESS

Save as disclosed in this annual report, as at December 31, 2018, no executive Director, non-executive Director or any of their close associates had any interests in any business that competed or was likely to compete, either directly or indirectly, with the business of the Group under Rule 8.10(2) of the Listing Rules.

CONNECTED TRANSACTIONS AND CONTINUING CONNECTED TRANSACTIONS

During the year ended December 31, 2018, the Company had no connected transactions or continuing connected transactions that were required to be disclosed pursuant to the provisions under Chapter 14A of the Listing Rules.

CHARITABLE DONATIONS

During the year ended December 31, 2018, the Group donated US$54,332 to non-profit organisations for charitable and community purposes.

MATERIAL LEGAL PROCEEDINGS

As of December 31, 2018, the Group was not involved in any material litigation or arbitration, and no material litigation or claim was pending or threatened against the Group as far as the Directors were aware of.

AUDIT COMMITTEE

The Audit Committee has reviewed the annual results announcement for 2018 and the financial statements for the year ended December 31, 2018 prepared in accordance with the HKFRS.

COMPLIANCE WITH THE CODE ON CORPORATE GOVERNANCE PRACTICES

The Company is committed to maintaining the highest standards of corporate governance practices. The Company has applied the principles set out in the Corporate Governance Code and the Corporate Governance Report (the "**CG Code**") contained in Appendix 14 to the Listing Rules. During the Reporting Period, save as disclosed in the Corporate Governance Report, the Company has complied with the mandatory code provisions of the CG Code. For details, please refer to the Corporate Governance Report on pages 63 to 77 in this annual report.

SUFFICIENCY OF PUBLIC FLOAT

Based on information publicly available to the Company and within the knowledge of the Directors, the Directors confirmed that the Company had maintained a sufficient public float of more than 25% of the Company's issued share capital as required under the Listing Rules as of the date of this annual report.

CONSULTING PROFESSIONAL TAX ADVISERS

The Company's shareholders are recommended to consult professional advisers if they are in any doubt as to the tax implications of the purchasing, holding, disposal of, buying, and selling of the Company's Shares or exercising any rights concerned.

AUDITORS

Ernst & Young, Certified Public Accountants ("**Ernst & Young**") was appointed as the auditors to audit the financial statements prepared in accordance with the HKFRS for the year ended December 31, 2018. Ernst & Young shall retire at the forthcoming AGM and is eligible and has offered itself for re-election. The resolution regarding the re-appointment of Ernst & Young as the auditors, of the Company will be proposed at the forthcoming AGM.

BUSINESS REVIEW PURSUANT TO SCHEDULE 5 OF THE COMPANIES ORDINANCE (CHAPTER 622 OF THE LAWS OF HONG KONG)

A fair review of the business of the Company and a discussion and analysis of the Group's performance during the Reporting Period and the material factors underlying its results and financial position are provided in the section headed "Management Discussion and Analysis" from pages 11 to 22 of this annual report.

PRINCIPAL RISKS AND UNCERTAINTIES

The principal risks and uncertainties facing the Group include commercial, operational and financial risks.

Commercial Risks

The Group is facing keen competition with other life sciences research and application services and products providers. To maintain the Group's competitiveness, the management uses cost leadership strategy as well as diversifies its business strategies to outperform other competitors.

Operational Risks

The Group is exposed to operational risks associated with each business segment of the Group. To manage the operational risks, the senior management regularly reviews the Group's operations to ensure that the Group's risks of losses, whether financial or otherwise, resulting from fraud, errors, omissions and other operational and compliance matters, are adequately managed. The senior management is also responsible for overseeing the implementation of the Group's risk management policies and procedures and shall report any irregularities to the Directors and seek directions. The Group emphasises ethical values and prevention of fraud and bribery. In this regard, the Directors consider that the Group's operational risks are effectively mitigated.

Financial Risks

The principle financial risks are set out in the note 41 to the financial statements in this report headed "Financial Risk Management Objectives and Policies".

IMPORTANT EVENTS

The European Medicines Agency ("**EMA**") granted a "PRIority MEdicines" ("**PRIME**") designation to Janssen-Cilag International N.V. ("**Janssen**") for JNJ-68284528 ("**JNJ-4528**"), the investigational B cell maturation antigen (BCMA) chimeric antigen receptor T-cell (CAR-T) therapy, which has been previously identified as LCAR-B38M. The PRIME designation is based on results from the Phase 1/2 LEGEND-2 study (NCT03090659) evaluating LCAR-B38M sponsored by Nanjing Legend Biotechnology Co., Ltd.* 南京傳奇生物科技有限公司, a controlled subsidiary of the Company, and the Phase 1b/2 CARTITUDE-1 study (NCT03548207) evaluating JNJ-4528, sponsored by Janssen and being conducted in collaboration with Legend Biotech USA Inc.. Results from the LEGEND-2 study were presented at American Society of Clinical Oncology ("**ASCO**"), European Hematology Association and American Society of Hematology ("**ASH**") in 2017, and most recently at ASH 2018. It is anticipated that results from the CARTITUDE-1 study will be presented at a future congress. Please refer to the announcement dated April 4, 2019 for details.

FUTURE DEVELOPMENT

Looking forward to 2019, the Group continues to concentrate on implementing the following business strategies:

i. Further investment in research and development and production capacity, focusing on the following key business areas:

   a) Cell therapies – We will put increasing effort to this space. We aim to develop and gain advanced CAR-T, TCR (T cell receptor), and other gene therapy technologies, extend our current autologous platform into allogeneic platform. We intend to target onto hematologic malignancies, solid tumors, infectious diseases, and autoimmune diseases;

   b) Biological drug CDMO service platform – We aim to expand the application of our SMAB platform to provide advanced biological drug development services; further expand the GMP production capacity to enable fully integrated biological drug development and manufacturing capability; and

   c) Molecular biology CRO and product offering – to further strengthen our global leading position in gene synthesis and other life sciences technology products and services.

ii. Further strengthening of the sales and marketing forces in order to continue improving our market penetration into:

a) Establish cell therapy commercial team in the United States and the China markets to prepare for the necessary procedures and certification with the intention to conduct a global commercial launch of the product of LCAR-B38M;

b) Further strengthen the collaboration between our CDMO platform with the biotech and biopharma community by providing innovative solutions from both scientific and commercial perspectives;

c) Enhance the penetration into the key accounts through strategic cooperation and to build up long term mutual beneficial relationships; and

d) Further consolidate our leading position on molecular biology services and products market by pushing the boundary into broader life science applications.

iii. We aim to pursue strategic acquisition opportunities for cutting-edge techniques and business entities as they arise in order to complement the existing internal capacity and to speed up the overall growth.

FINANCIAL KEY PERFORMANCE INDICATORS

A summary of the results and assets and liabilities of the Company for the last five financial years is set out on page 6 in this annual report. This summary does not form part of the audited consolidated financial statements.

ENVIRONMENTAL POLICIES AND PERFORMANCE

In support of sustainable development, the Company invested an amount of approximately RMB380,000 on a set of heating system to reduce the use of natural gas, improve the efficiency, and reduce the emission of dust, nitrogen oxide, and sulfur dioxide. The heating system has been installed and running since November 2018, and has reduced energy consumption by about 40,000 kwh per month.

To answer the call of reducing pollutions, the Group has spent RMB380,000 on a sludge desiccated system to reduce the water content in sludge from waste water treatment station. Since the system has been installed in June 2018, it reduced the volume of waste sludge by about 3 tons per month.

COMPLIANCE WITH LAWS AND REGULATIONS

The Group recognises the importance of compliance with regulatory requirements and the risk of non-compliance with such requirements could lead to the termination of operating licenses. The Group has implemented procedures to ensure ongoing compliance with rules and regulations and to maintain cordial working relationships with regulators through effective communications. During the year under review, the Group has complied, to the best of our knowledge, with the SFO, the Listing Rules, and other relevant rules and regulations.

RELATIONSHIPS WITH EMPLOYEES

The Group encouraged the employees to enhance their competitiveness and ability to innovate new services and products. This raised the momentum in the research and development as well as marketing efforts to increase the revenue of the Group. Through solidifying its business foundation and adjusting its operation directives, the Group is striving to forge ahead under adverse conditions to allow us to achieve new progresses in terms of production and operation under a positive and hardworking work culture.

RELATIONSHIPS WITH CUSTOMERS AND SUPPLIERS

We had established a highly diversified customer base, including pharmaceutical and biotech companies, colleges and universities, research institutes, government bodies (including government testing and diagnostic centers), and distributors. The Group strives to "Make Research Easy" by offering life sciences research and application services and products for conducting fundamental life sciences research, translational biomedical research, and early stage pharmaceutical development. Our synthetic biology products are used by industry users, such as those in the food and feed industries. In 2018, we expanded the range of our services and products and developed new customer accounts. The total number of customers has increased by approximately 14.1% compared to the total number of customers in 2017.

Owing to our vast array of services and products, we procure a wide variety of raw materials from a large number of suppliers for our business segments. As of December 31, 2018, we had a total of approximately 810 suppliers of different raw materials for our production that are mostly located in China. In 2018, we maintained sound relationships with our suppliers such that we could meet business challenges and comply with regulatory requirements, thereby deriving cost effectiveness and reaping long term business benefits.

By order of the Board

Dr. Zhang Fangliang
Chairman and Chief Executive Officer

Hong Kong, March 22, 2019

CORPORATE GOVERNANCE REPORT

The Board is pleased to present this corporate governance report as set out in the annual report of the Company for the year ended December 31, 2018.

CORPORATE GOVERNANCE PRACTICES

The Group is committed to maintaining high standards of corporate governance to safeguard the interests of the shareholders and to enhance corporate value and accountability. The Company has adopted the CG Code contained in Appendix 14 to the Listing Rules (as in effect from time to time) as its own code of corporate governance.

Save as disclosed in this corporate governance report on page 65 regarding the deviation from code provision A.2.1 of the CG Code, the Company has complied with all the applicable code provisions as set out in the CG Code during the year ended December 31, 2018 and up to the date of this annual report. The Company will continue to review and enhance its corporate governance practices to ensure compliance with the CG Code.

THE BOARD

Responsibilities

The Board is responsible for the overall leadership of the Group, oversees the Group's strategic decisions, and monitors business and performance. The Board has delegated the authority and responsibility for day-to-day management and operation of the Group to the senior management of the Group. To oversee particular aspects of the Company's affairs, the Board has established four Board committees, including the Audit Committee, the Remuneration Committee, the Nomination Committee, and the Sanctions Risks Control Committee (together, the "**Board Committees**"). The Board has delegated responsibilities to the Board Committees as set out in their respective terms of reference.

All Directors shall ensure that they carry out duties in good faith, in compliance with applicable laws and regulations, and in the interests of the Company and the shareholders at all times.

Board Composition

As of the date of this annual report, the Board comprises nine members, consisting of three executive Directors, three non-executive Directors, and three independent non-executive Directors as set out below:

Executive Directors

Dr. Zhang Fangliang *(Chairman and Chief Executive Officer)*
Ms. Wang Ye *(President)*
Mr. Meng Jiange *(Vice President of Investor Relations)*

Non-executive Directors

Dr. Wang Luquan
Mr. Pan Yuexin
Ms. Wang Jiafen

Independent Non-executive Directors

Mr. Guo Hongxin
Mr. Dai Zumian
Mr. Pan Jiuan

The biographies of the Directors are set out in the section headed "Directors and Senior Management" of this annual report.

During the year ended December 31, 2018 and up to the date of this annual report, the Board met the requirements of Rules 3.10 (1) and 3.10 (2) of the Listing Rules relating to the appointment of at least three independent non-executive Directors with at least one independent non-executive Director possessing appropriate professional qualifications or accounting or related financial management expertise.

The Company has also complied with Rule 3.10A of the Listing Rules, which relates to the appointment of independent non-executive Directors representing at least one-third of the Board.

Each of the independent non-executive Directors has confirmed his/her independence pursuant to Rule 3.13 of the Listing Rules, and the Company considers each of them to be independent.

None of the Directors has any personal relationship (including financial, business, family, or other material/relevant relationship) with any other Director.

All Directors, including independent non-executive Directors, have brought a wide spectrum of valuable business experience, knowledge, and professionalism to the Board for its efficient and effective functioning. Independent non-executive Directors are invited to serve on the Audit Committee, the Remuneration Committee, and the Nomination Committee.

With regards to the CG Code provision requiring directors to disclose the number and nature of offices held in public companies or organisations and other significant commitments, as well as their identities and the times involved in the issuer, the Directors have agreed to disclose their commitments to the Company in a timely manner.

INDUCTION AND CONTINUOUS PROFESSIONAL DEVELOPMENT

Each newly appointed Director is provided with necessary induction and information to ensure that he/she has a proper understanding of the Company's operations and businesses as well as his/her responsibilities under relevant statutes, laws, rules, and regulations. The Company also arranges regular seminars to provide Directors with updates on the latest developments and changes in the Listing Rules and other relevant legal and regulatory requirements from time to time. The Directors are also provided with regular updates on the Group's performance, position and, prospects to enable the Board as a whole and each Director to discharge their duties.

According to the records kept by the Company, all the existing Directors have received continuous and professional development and training, as set out below, with an emphasis on the roles, functions, and duties of directors in listed companies:

Name of Directors	Attending internal briefings or trainings, participating seminars, or reviewing materials
Executive Directors	
Zhang Fangliang	✓
Wang Ye	✓
Meng Jiange	✓
Non-executive Directors	
Wang Luquan	✓
Pan Yuexin	✓
Wang Jiafen	✓
Independent non-executive Directors	
Guo Hongxin	✓
Dai Zumian	✓
Pan Jiuan	✓

CHAIRMAN AND CHIEF EXECUTIVE OFFICER

As required by code provision A.2.1 of the CG Code, the roles of chairman and chief executive officer should be separate and performed by different individuals.

The Company deviates from this provision because Dr. Zhang Fangliang has been assuming the roles of both the chairman of the Board and the chief executive officer of the Company since the Listing Date. The Board believes that resting the roles of both the chairman and the chief executive officer in the same person has the benefit of ensuring consistent leadership within the Group and enables more effective and efficient overall strategic planning for the Group. Although these two roles are performed by the same individual, certain responsibilities are shared with the executive Directors to balance power and authority. In addition, all major decisions are made in consultation with members of the Board, as well as with the senior management. The Board has three independent non-executive Directors who offer different independent perspectives. Therefore, the Board is of the view that the balance of power and safeguards in place are adequate. The Board would review and monitor the situation on a regular basis, and it would ensure that the present structure would not impair the balance of power in the Group.

APPOINTMENT AND RE-ELECTION OF DIRECTORS

Each of the executive Directors has entered into a service contract with the Company for a fixed term of three years commencing from December 1, 2018, which can be terminated before the expiration of the term by not less than six months' notice in writing served by either party on the other.

Each of the non-executive Directors has signed an appointment letter with the Company for a term of three years. The effective date of the appointments of Mr. Wang Luquan and Mr. Pan Yuexin is August 24, 2018, and that of Ms. Wang Jiafen is November 26, 2018. Their appointments are subject to termination in accordance with their respective terms.

Each of the independent non-executive Directors has signed an appointment letter with the Company for a term of three years. The effective date of the appointment of Mr. Guo Hongxin and Mr. Dai Zumian is August 24, 2018, and that of Mr. Pan Jiuan is November 26, 2018. Their appointments are subject to termination in accordance with their respective terms.

Save as disclosed above, no Director has entered into a service contract with the Group that is not determinable by the Company within one year without payment of compensation (other than statutory compensation).

Pursuant to the Articles, at each annual general meeting, one-third of the Directors shall retire from office by rotation, provided that every Director shall be subject to retirement by rotation at least once every three years. Any Director appointed by the Board to fill a casual vacancy shall hold office only until the first general meeting of the Company after his/her appointment and be subject to re-election at such meeting, and any Director appointed by the Board as an addition to the existing Board shall hold office only until the next following annual general meeting of the Company and shall then be eligible for re-election.

The procedures and process of appointment, re-election and removal of Directors are set out in the Articles. The Nomination Committee is responsible for reviewing the Board composition, and making recommendations to the Board on appointment, re-election, and succession planning of Directors.

BOARD MEETINGS

The Company adopts the practice of holding Board meetings regularly. Notices of not less than 14 days are given for regular board meetings to provide all Directors with an opportunity to attend and include matters in the agenda for a regular meeting.

For other committee meetings, a reasonable notice will be given in writing to all committee members. The meeting notice states the time and place of the meeting. The agenda and accompanying board committee papers will be provided at least three days before the date of meeting to ensure that Directors have sufficient time to review the papers and be adequately prepared for the meetings. When Directors or committee members are unable to attend a meeting, they will be advised of the matters to be discussed and given an opportunity to make their views known to the chairman prior to the meeting.

Minutes of the Board meetings and Board committee meetings will be recorded in sufficient details for the matters considered by the Board and the Board committees and the decisions reached, including any concerns raised by the Directors. Draft minutes of each Board meeting and committee meeting are/will be sent to the Directors for comments within a reasonable time after the date on which the meeting is held.

During the Reporting Period, the Board held five meetings on March 16, 2018, July 5, 2018, August 27, 2018, September 30, 2018 and November 26, 2018 to cover the following aspects:

(a) to consider and review the financial statement for the year ended December 31, 2017 and for the six-month period ended June 30, 2018 and matters concerning corporate governance and management;

(b) to discuss the overall strategies of the Group, monitor the financial and operational performance, and approve the annual and interim results of the Group;

(c) to consider and approve the external investments;

(d) to consider and discuss matters concerning the implementation of the Share Option Schemes; and

(e) to consider and discuss matters relating to sanctions, audition and remuneration.

The attendance of the individual Directors at the Board meetings mentioned above and the general meeting is set out below:

	Attended/Eligible to attend	
Name of Directors	**Board meetings**	**General Meeting**
Zhang Fangliang	5/5	1/1
Wang Ye	5/5	1/1
Meng Jiange	5/5	1/1
Wang Luquan	5/5	1/1
Pan Yuexin	5/5	1/1
Wang Jiafen (appointed on November 26, 2018)	1/5	0/0
Guo Hongxin	5/5	1/1
Dai Zumian	5/5	1/1
Zhang Min (resigned on November 26, 2018)	4/5	0/1
Pan Jiuan (appointed on November 26, 2018)	1/5	0/0

The Company's external auditors also attended the annual general meeting of the Company held on June 1, 2018.

During the Reporting Period, the chairman of the Board met with the independent non-executive Directors without the presence of the other executive Directors to discuss and obtain independent advice on the business operations and financial condition of the Company.

MODEL CODE FOR SECURITIES TRANSACTIONS

The Company has adopted its own Code for Securities Transaction by Directors and Specified Individuals (the "**Code**") on terms no less exacting than the required standard set out in the Model Code as set out in Appendix 10 of the Listing Rules. Specific inquiry has been made to all the Directors and each of the Directors has confirmed that he/she has complied with the Code during the Reporting Period.

The Code is also applicable to the Company's relevant employees who are likely to be in possession of unpublished inside information of the Company in respect of their dealings in the Company's securities. No incidents of non-compliance with the Code by the Directors and the relevant employees of the Company were noted by the Company during the Reporting Period.

CORPORATE GOVERNANCE REPORT

DELEGATION BY THE BOARD

The Board reserves for its decision on all major matters of the Group, including approval and monitoring of all policy matters, overall strategies and budgets, internal control and risk management systems, material transactions (in particular those that may involve conflict of interests), financial information, appointment of Directors, and other significant financial and operational matters. Directors could have recourse to seek independent professional advice in performing their duties at the Company's expense and are encouraged to access and to consult with the Group's senior management independently.

The daily management, administration, and operation of the Group are delegated to the senior management. The delegated functions and responsibilities are periodically reviewed by the Board. Approval has to be obtained from the Board prior to any significant transactions entered into by the management.

CORPORATE GOVERNANCE FUNCTION

The Board recognises that corporate governance shall be the collective responsibility of the Directors and their corporate governance duties include:

1. to develop and review the Group's policies and practices on corporate governance;

2. to review and monitor the Group's policies and practices on compliance with legal and regulatory requirements;

3. to develop, review, and monitor the code of conduct and compliance manual (if any) applicable to employees and directors; and

4. to review the Group's compliance with the CG Code and disclosure in the Corporate Governance Report.

The duty to review and monitor the training record and continuous professional development of the Directors and senior management of the Group has been delegated to the Remuneration Committee.

BOARD COMMITTEES

Nomination Committee

The Nomination Committee currently comprises three members, including an executive Director, namely, Dr. Zhang Fangliang (chairman of the Nomination Committee) and two independent non-executive Directors, namely, Ms. Zhang Min (resigned on November 26, 2018), Mr. Pan Jiuan (appointed on November 26, 2018) and Mr. Dai Zumian.

The principal duties of the Nomination Committee include:

1. to review the structure, size, composition, and diversity (including but not limited to the gender, age, educational background or professional experience, skills, knowledge, and length of service) of the Board at least annually and make recommendations on any proposed changes to the Board to complement the Company's corporate strategy;

2. to identify individuals suitably qualified to become members of the Board and select or make recommendations to the Board on the selection of individuals nominated for directorships;

3. to assess the independence of independent non-executive Directors;

4. to make recommendations to the Board on the appointment or reappointment of members of the Board and succession planning for members of the Board; and

5. to review the board diversity policy as appropriate to ensure its effectiveness and if necessary, recommend any revision suggestions to the Board for consideration and approval.

The written terms of reference of the Nomination Committee are of no less exacting terms than those set out in the CG Code and available on the websites of the Stock Exchange and the Company.

The Nomination Committee will assess the candidate or incumbent on criteria such as integrity, experience, skill, and ability to commit time and effort to carry out the duties. The recommendations of the Nomination Committee will then be put to the Board for decision. The Nomination Committee should report back to the Board on its decisions or recommendations after every Nomination Committee meeting.

Pursuant to code provision A.5.6 of the CG Code, listed issuers are required to adopt a board diversity policy. The Company believes that board diversity can enhance the performance of the Company. After taking into account the Company's own business model and specific needs and upon the recommendation of the Nomination Committee, the Board has adopted a board diversity policy (the "**Policy**") to ensure that in designing the Board's composition, board diversity will be considered from a number of aspects, including but not limited to gender, age, cultural and educational background, professional experience, skills, and knowledge. All Board appointments will be based on meritocracy, and candidates will be considered against objective criteria, having due regard to the benefits of diversity on the Board.

During the Reporting Period, the Nomination Committee held two meeting on March 25, 2018 and November 26, 2018. The specific agenda of the Nomination Committee covered the following aspects:

(a) to review the structure, size, composition and diversity of the Board;

(b) to review the Company's board diversity policy;

(c) to assess the independence of the independent non-executive directors of the Company;

(d) to make recommendation to the re-election of Directors; and

(e) to make recommendation to the appointment of new Directors.

The attendance of the individual committee members at the Nomination Committee meeting mentioned above is set out below:

Name of Committee Member	Committee meetings attended/ eligible to attend
Zhang Fangliang *(chairman)*	2/2
Zhang Min (resigned on November 26, 2018)	2/2
Dai Zumian	2/2
Pan Jiuan (appointed on November 26, 2018)	0/0

Remuneration Committee

The Remuneration Committee currently comprises three members, including two independent non-executive directors, namely, Mr. Guo Hongxin (chairman of the Remuneration Committee) and Mr. Dai Zumian, and an executive director, namely, Ms. Wang Ye.

The principal duties of the Remuneration Committee include:

1. to make recommendations to the Board on the Company's policy and structure for all remuneration of members of the Board and senior management members and on the establishment of a formal and transparent procedure for developing policy on such remuneration;

2. to make recommendations to the Board of the remuneration of members of the Board who are non-executive Directors;

3. to consult with the chairman and/or the chief executive officer of the Company and, where deemed appropriate, senior management members about the Committee's proposals relating to, and have the delegated responsibility to determine, the specific remuneration packages for the employment of all members of the Board who are executive directors and all senior management members, including benefits in kind, pension rights, and compensation payments, including any compensation payable for loss or termination of their office or appointment;

4. to review and approve performance-based remuneration payable to members of the Board who are executive directors, and senior management members by reference to corporate goals and objectives resolved by the Board from time to time and other measures of performance;

5. to review and approve any compensation additional to that provided for in the remuneration packages determined according to paragraph 3 above, which is payable to members of the Board who are executive directors and senior management members in connection with any loss or termination of their offices or appointments to ensure that it is consistent with contractual terms and is otherwise fair and not excessive;

6. to review and approve compensation arrangements relating to dismissal or removal of members of the Board who are executive directors and senior management members for misconduct to ensure that such arrangements are determined in accordance with relevant contractual terms and that any compensation payment is otherwise reasonable and appropriate;

7. to ensure that no member of the Board or the senior management members or any of his/her associates is involved in deciding his own individual remuneration;

8. to determine the participation of members of the Board who are executive directors, senior management members, and other employees of the Company in any discretionary employee share or other share-based incentive schemes operated by the Company;

9. to determine targets for any Company-wide performance-related payments for members of the Board who are executive directors and senior management members and individual incentives for members of the Board who are executive directors and senior management members;

10. to determine the provision of benefits and settlement of other provisions under the terms of the service agreements or otherwise of members of the Board who are executive directors and senior management members where these are stated as being at the discretion of the Board;

11. to operate and administer the Company's share option schemes or other incentive schemes (if any) as may be from time to time adopted by the Company; and

12. to review and monitor the training record and continuous professional development of the Directors and senior management of the Company.

The written terms of reference of the Remuneration Committee are of no less exacting terms than those set out in the CG Code and available on the websites of the Stock Exchange and the Company.

During the Reporting Period, the Remuneration Committee held four meetings on March 16, 2018, July 5, 2018, August 27, 2018 and November 26, 2018 to cover the following aspects:

(a) to determine the remuneration policy and structure of Directors and senior management and evaluate and make adjustment to the remuneration of the Directors and senior management; and

(b) to consider and discuss matters concerning the implementation of the Share Option Schemes.

The attendance of the individual committee members at the Remuneration Committee meeting mentioned above is set out below:

Name of Committee Member	Committee meetings attended/ eligible to attend
Guo Hongxin *(chairman)*	4/4
Wang Ye	4/4
Dai Zumian	4/4

Remuneration of Directors and Senior Management

The Company has established a formal and transparent procedure for formulating policies on the remuneration of Directors and senior management of the Group. Details of the remuneration of each of the Directors for the year ended December 31, 2018 are set out in note 8 to the financial statements in this annual report.

The biographies of the senior management are disclosed in the section headed "Directors and Senior Management" in this annual report. Remuneration paid to the senior management members (excluding the Directors) for the year ended December 31, 2018 is within the range below:

Range of remuneration	Number of Persons
Between HK$2,000,000 and HK$3,000,000 (equivalent to approximately US$258,000 and US$387,000)	1
Between HK$3,000,000 and HK$4,000,000 (equivalent to approximately US$387,000 and US$516,000)	1
Between HK$5,000,000 and HK$6,000,000 (equivalent to approximately US$645,000 and US$774,000)	1

Audit Committee

The Audit Committee currently comprises three members, namely, Mr. Dai Zumian (chairman of the Audit Committee), Ms. Zhang Min (resigned on November 26, 2018), Mr. Pan Jiuan (appointed on November 26, 2018) and Mr. Guo Hongxin, all being independent non-executive Directors. The principal duties of the Audit Committee are (i) to review and monitor the Company's financial reporting system, risk management, and internal control systems, (ii) to maintain the relations with the external auditor of the Company, and (iii) to review the financial information of the Company.

The written terms of reference of the Audit Committee are of no less exacting terms than those set out in the CG Code and available on the websites of the Stock Exchange and the Company.

During the Reporting Period, the Audit Committee held three meetings on March 16, 2018, July 5, 2018 and August 27, 2018. The specific agenda of the Audit Committee covered the following aspects:

(a) to consider and review the financial statement for the year ended December 31, 2017 and for the six-month period ended June 30, 2018; and

(b) to review audit planning, the financial reporting system, compliance procedures, internal audit function, risk management and internal control system and procedures and re-appointment of external auditor.

The requirements for Environment, Social and Governance Reporting were duly noted by the Audit Committee.

The attendance record of each committee member of the said Audit Committee meeting held by the Company is set out in the table below:

Name of Director	Committee meetings attended/ eligible to attend
Dai Zumian *(chairman)*	3/3
Zhang Min (resigned on November 26, 2018)	3/3
Guo Hongxin	3/3
Pan Jiuan (appointed on November 26, 2018)	0/0

The Audit Committee met the external auditors once on March 16, 2018, July 5, 2018 and August 27, 2018 without the presence of the executive Directors.

Sanctions Risk Control Committee

The Sanctions Risk Control Committee is headed by Zhang Fangliang (chairman), Wang Ye, Meng Jiange, Eric Wang, and Shawn Wu as members.

The principal duties of the Sanctions Risk Control Committee include:

1. to effectively monitor the activities that may be subject to economic sanctions;

2. to provide guidance on the compliance with the relevant policies and procedures in relation to economic sanctions;

3. to provide guidance on the compliance with contractual covenants including those made in connection with the Global Offering and Listing; and

4. to ensure the establishment of effective policies in relation to economic sanctions.

During the Reporting Period, the Sanctions Risk Control Committee held four meetings on March 15, 2018, July 5, 2018, August 23, 2018 and November 2, 2018 to cover the following aspects:

(a) to discuss items regarding any sanctions related risks on the Group's commercial or other business activities;

(b) to review the activities that may be subject to economic sanctions;

(c) to review relevant policies and procedures in relation to economic sanctions;

(d) to review guidance on the compliance with contractual covenants;

(e) to review the use of proceeds from the global offering; and

(f) to review internal control policies and procedures with respect to the sanction risks.

The attendance record of each committee member of the Sanctions Risk and Control Committee meeting held by the Company is set out in the table below:

Name of Committee Member	Committee meetings attended/ eligible to attend
Zhang Fangliang	4/4
Wang Ye	4/4
Meng Jiange	4/4
Eric Wang	4/4
Shawn Wu	4/4

The Sanctions Risk Control Committee has reviewed the sales of the Group to the Sanctioned Countries (as defined and disclosed in the Prospectus) for the year ended December 31, 2018 and the relevant legal opinions from the Company's legal adviser as to international sanctions laws to monitor the Group's exposure to risks of sanctions violations.

DIRECTORS' AND AUDITORS' RESPONSIBILITIES FOR FINANCIAL REPORTING IN RESPECT OF THE CONSOLIDATED FINANCIAL STATEMENTS

The Directors have acknowledged their responsibilities for preparing the consolidated financial statements of the Company for the year ended December 31, 2018, which give a true and fair view of the affairs of the Company and the Group and of the Group's results and cash flows.

The management has provided the Board such explanation and information as are necessary to enable the Board to carry out an informed assessment of the Company's financial statements, which are put to the Board for approval. The Company provides all members of the Board with monthly updates on the Company's performance, positions, and prospects.

The Directors have not been aware of any material uncertainties relating to events or conditions that may cast significant doubt upon the Group's ability to continue as a going concern.

The statement by the independent auditors of the Company regarding their reporting responsibilities for the audit of the consolidated financial statements of the Company is set out in the independent auditors' report on pages 126 to 130 in this annual report.

RISK MANAGEMENT AND INTERNAL CONTROL

The Board acknowledges that it is the responsibility of the Board for maintaining an adequate risk management and internal control systems to safeguard shareholders' investments and the Company's assets and reviewing the effectiveness of such systems on an annual basis. Such systems are designed to manage rather than eliminate the risks of failure to achieve business objectives, and each only provides reasonable and not absolute assurance against material mistreatment or loss.

The Group's internal audit department plays an important role in monitoring the internal governance of the Company. The major duties of internal audit department are to regulate and review the internal control and compliance related matters of the Company and conduct comprehensive audits of all branches and subsidiaries of the Company on a regular basis. The Group's internal audit department performs regular evaluation on the effectiveness of risk control measures taken by each operating department and issues an appraisal report which shall be submitted to our Audit Committee for approval.

The Audit Committee has received an internal control report prepared by the internal audit department during the Year and has considered that the internal control system of the Group remains effective and no material issue is required to be brought to the Board's attention. The Board considers the risk management and internal control systems effective after review.

The Company has established a risk management process, pursuant to which each operating department is required to identify any significant risks associated with their work and corporate strategies of the Company. Based on the assessment of the identified risks in terms of their likelihood and potential impact, the Company prioritises and pairs each risk with a mitigation plan. Furthermore, any emergencies are required to be reported, evaluated and managed in time to mitigate the impact.

The Group has established a three-tier risk control corporate structure in implementing our internal control and risk management policies and procedures. First, the Board and the senior management oversee and manage the overall risks associated with our business operations. Second, the Audit Committee provides the Directors with an independent review of the effectiveness of the financial reporting process, internal controls, and risk management system of the Group. Third, the Group's internal audit department supervises the implementation of our risk management policy at the corporate level and organises an annual audit progress for regularly evaluating the effectiveness of the risk management and internal control measures taken by each operating department and issues an appraisal report which shall be submitted to the Audit Committee for approval.

The Board is responsible for the management of inside information. Without the approval of the Board, the Company prohibits any inside information from being disclosed to the public.

AUDITORS' REMUNERATION

For the audit of the Group's consolidated financial statements for the year ended December 31, 2018, the total remuneration paid or payable to the Company's external auditors, Ernst & Young, for audit and audit related services amounted to US$505,000.

CORPORATE GOVERNANCE REPORT

COMPANY SECRETARY

Ms. Wong Wai Ling was appointed as the company secretary of the Company with effect from August 24, 2015. She has over 10 years of experience in providing company secretarial services in Hong Kong. Ms. Wong is a vice president of SWCS Corporate Services Group (Hong Kong) Limited and is responsible for assisting listed companies in professional company secretarial work. Ms. Wong is an associate of The Hong Kong Institute of Chartered Secretaries and The Institute of Chartered Secretaries and Administrators in the United Kingdom. Ms. Wong's primary corporate contact person at the Company is Mr. Meng Jiange, the Vice President of the Investor Relations.

Ms. Wong has undertaken not less than 15 hours of relevant professional training in compliance with Rule 3.29 of the Listing Rules for the year ended December 31, 2018.

COMMUNICATION WITH SHAREHOLDERS AND INVESTOR RELATIONS

The Company considers that effective communication with shareholders is essential for enhancing investor relations and the understanding of the Group's business, performance, and strategies. The Company also recognises the importance of the timely and non-selective disclosure of its information, which will enable shareholders and investors to make informed investment decisions.

The annual general meeting of the Company provides an opportunity for shareholders to communicate directly with the Directors. The chairman of the Company and chairmen of the Board Committees, or in their absence, their duly appointed delegates will attend the annual general meeting to answer shareholders' questions. The external auditors of the Company will also attend the annual general meeting to answer questions about the conduct of the audit, the preparation and contents of the auditors' report, accounting policies, and auditors independence.

To promote effective communication, the Company adopts a shareholders' communication policy that aims at establishing a two-way relationship and communication between the Company and the Shareholders and maintains a website at www.genscript.com, where up-to-date information on the Company's business operations and developments, financial information, corporate governance practices, and other information are available for public access.

SHAREHOLDERS' RIGHTS

To safeguard shareholders' interests and rights, a separate resolution is proposed for each issue at general meetings, including the election of individual Directors.

All resolutions put forward at general meetings will be voted on by poll pursuant to the Listing Rules, and poll results will be posted on the websites of the Company and the Stock Exchange in a timely manner after each general meeting.

CONVENING EXTRAORDINARY GENERAL MEETINGS AND PUTTING FORWARD PROPOSALS

In accordance with the Articles, extraordinary general meetings shall also be convened on the requisition of one or more Shareholders' holdings, at the date of deposit of the requisition, not less than one tenth of the paid up capital of the Company having the right of voting at general meetings.

Such requisition shall be made in writing to the Board or the secretary for the purpose of requiring an extraordinary general meeting to be called by the Board for the transaction of any business specified in such requisition. Such meeting shall be held within two months after the deposit of such requisition. If within 21 days of such deposit, the Board fails to proceed to convene such meeting, the requisitionist(s) himself (themselves) may do so in the same manner and all reasonable expenses incurred by the requisitionist(s) as a result of the failure of the Board shall be reimbursed to the requisitionist(s) by the Company.

With regards to proposing a person for election as a director, the procedures are available on the website of the Company.

Shareholders who intend to put forward their inquiries about the Company to the Board could email their inquiries to our Investor Relations Department at the email address: investorrelations@genscript.com. The Company will not normally deal with verbal or anonymous inquires.

CHANGE IN CONSTITUTIONAL DOCUMENTS

The Articles of the Company were adopted by the Company on December 7, 2015 and became effective on the Listing Date. There is no significant change in the Company's constitutional documents during the Reporting Period.

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ABOUT THIS REPORT

Overview

This report is the third Environment, Social and Governance (hereinafter referred as "**ESG**") Report published by GenScript Biotech Corporation (hereinafter referred as "**GenScript**", "**the Company**", or "**we**"), which discloses information on our responsible governance, innovation and research, quality optimization, service responsibility, team building and employee development, workplace health and safety, environmental protection, animal care and community feedback. The reporting year of this report is in alignment with our fiscal year.

Basis for compiling the report

This report is compiled in accordance with the Environmental, Social and Governance Reporting Guide published by Hong Kong Stock Exchange Limited. Information is intended to disclose material environmental, social and governance issues, for the relevant parties and shareholders. The content of this report is determined by a set of established procedures, including identifying and prioritizing the stakeholders, identifying and prioritizing environmental, social and governance issues, collecting relevant metrics and verifying the reported quantitative metrics.

Reporting scope and boundary

The content and metrics reported in this document cover GenScript Biotech Corporation and its subsidiaries. The data contained within this report covers January 1st through December 31st, 2018, unless otherwise noted, the currency involved in the report is in USD and density data are calculated based on revenue disclosed in GenScript's annual report.

Source of data and assurance of reliability

The data and case studies reported in this document are prepared based on our internal statistical reports, internal policy documents and other internal documents. The Board hereby confirms that there are no false or misleading statements made in this report. The Board takes full responsibility for the authenticity, accuracy and completeness of this report.

Board approval

Upon review by management, this report was approved by the Board on 22nd March 2019.

ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT

1. OVERVIEW OF RESPONSIBILITY

1.1 Responsibility Concept

GenScript is recognized as a world leader in the biotechnology reagents service industry, with a strong focus on the research of genetics, peptides, proteins and antibodies. Since its inception in 2002, the Company has successfully established full integrated capacities for custom peptide synthesis, protein expression and engineering, custom antibody development and engineering, animal model development, in vitro/in vivo pharmacology as well as a variety of catalogue products, industrial enzymes and microbial reagents. Headquartered in Nanjing, China, the Company has set up branch offices in China, the United States, Japan and Europe. With its excellent services, high-quality products and good reputation, GenScript continuously consolidates its leading position in the industry. At present, GenScript provides superior and convenient services to more than 200,000 customers from over 100 countries and regions.

GenScript holds a keen sense of social responsibilities. We employ our core value as the compass, take corporate mission and responsibility concept as the buttress, and fully incorporate social responsibilities into business operations.

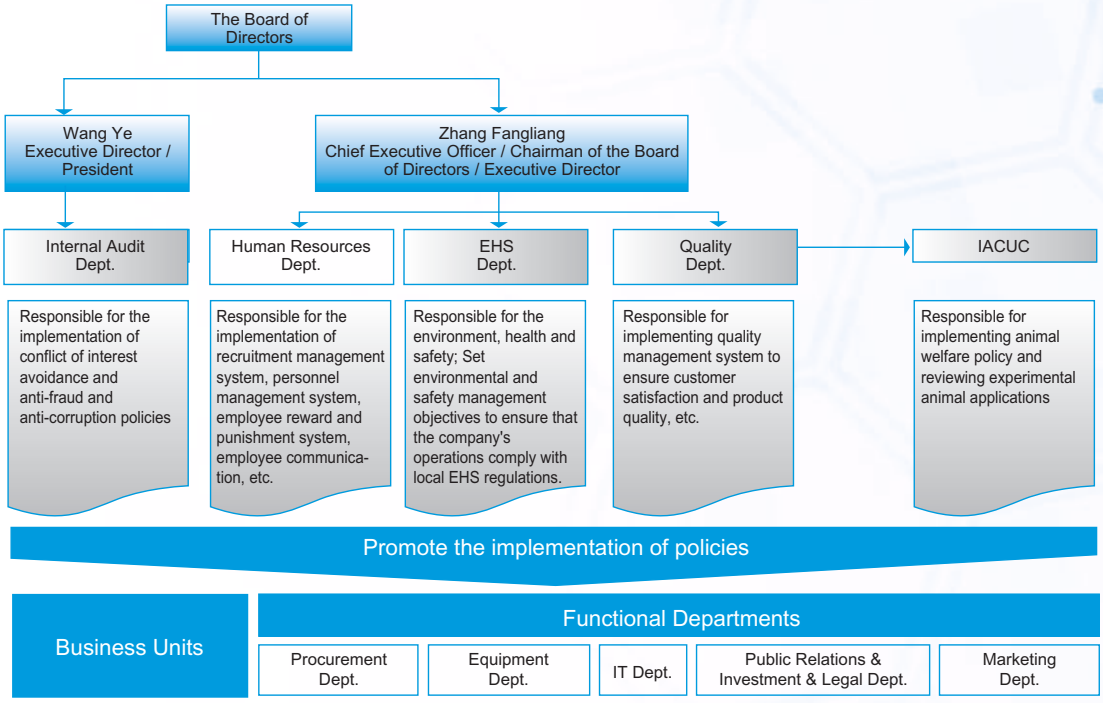
Our core values	• Customer level: Customer first • Company level: Innovation, pursuit of excellence and win-win cooperation • Staff level: Integrity and introspection
Our mission	Make the human and nature healthier through biotechnology
Our vision	To become the most trustworthy biotech company
Our spirit	Dare to win with courage, commitment and endeavour

In this report, GenScript has made public and detailed disclosure, elaborating on our environmental, social, governance issues and other non-financial matters for the third consecutive year. We hope that the public will have a deeper understanding of GenScript's business philosophy and social responsibility practices. We also consider this report as an important opportunity for GenScript to review its ESG performance.

1.2 Responsibility Management

ESG Management

GenScript's ESG Working Committee is led by CEO Dr. Zhang Fangliang and newly appointed Group President Ms. Wang Ye. The committee presides over the ESG affairs as a coordinator. Each business sections and functional department takes charge of implementing specific ESG-related work during their daily operation.



GenScript's ESG Management Structure

Risk Management

GenScript attaches great importance to the construction of corporate governance system and comprehensive risk management. During the reporting period, we launched the system construction project, initially completed the institutional structure, and significantly improved the quality, timeliness, practicability, availability, publicity and implementation of the various systems. At the level of risk management, we comprehensively updated "Internal Audit Charter", "Internal Auditing Management Measures", "Off-office Auditing Management Measures" and other institutional documents for internal operation. These documents could strengthen the management of internal audit, clarify internal audit objectives and reduce the Company's internal control risks.

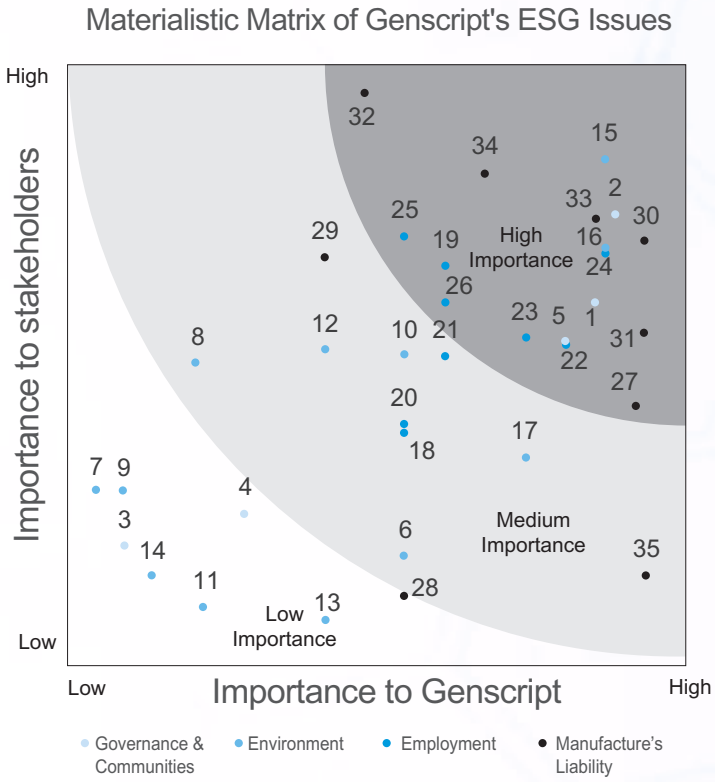
Internal Audit Charter	– To lay the foundation for systems and regulations related to internal audit; – To determine the scope of internal audit and management matters, the internal audit standards and the process of handling violations.
Internal Audit Management Measures	– To specify the requirements for internal audit, which include the responsibilities of personnel involved in internal audit, internal audit classification and specific implementation procedures.

GenScript well understands our responsibilities to shareholders and the public, and has zero tolerance towards corruption. Based on "Conflict of Interest Avoidance and Anti-Fraud System", we have formulated "Internal Supervision Rules" (hereinafter referred to as "the Rules") to regulate the supervision work and uplift its management level. According to the Rules, we have expounded the responsibilities of the Audit Committee, the Internal Audit Department and other relevant departments. We not only clarified the management principles for supervision and its acceptance scope, but also stipulated the whole process from receiving whistleblowing, launching investigation, reporting results to ex post facto handling. Beside our regular whistleblowing channels (telephone, mail, WeChat public account, etc.), we particularly arranged an anti-corruption channel at the Company's official website to accommodate stakeholders' whistleblowing actions. For 2018, the Company was not involved in any corruption lawsuits.

1.3 Responsibility Identification

To assess the Company's ESG performance more objectively and comprehensively, we take advice from multiple stakeholders and thoroughly consider the importance of their concern. By communicating with stakeholders through interviews, online feedback sections, customer hotlines, meetings and other channels, we have built multi-dimensional understanding of significant issues and clarified the directions for future improvement.

During the preparation of this year's ESG reports, the Company collaborated with independent third parties to conduct stakeholder communication over various ESG issues. In total, we organised nearly 20 in-depth stakeholder discussions; we also interviewed suppliers, customers, media, academia, regulatory agencies and investors for detailed information. Thereafter, we combined the issues highlighted by the stakeholders with last year's material issues and updated Genscript ESG Materiality Matrix as the following:



As shown in the matrix, issues marked in the dark grey areas are both highly recognized by stakeholders and relevant to GenScript's business, hence these issues are taken as "highly important issues". All ESG-related issues of GenScript are presented in the table below, with highly important issues displayed in bold. We have stressed the management methods and performance of these issues in the corresponding chapters:

Number	Classification	Environmental, Social and Governance Issues	Number	Classification	Environmental, Social and Governance Issues
1	Governance and Community	**Board of Directors' Participation in ESG**	**19**	Employment	**Employee benefits and remuneration**
2		**Operational Risk Management**	20		Fair recruitment and reward mechanism
3		Assess and consider the performance of suppliers' social and environmental responsibility	21		Non-discrimination
4		Supporting community development	**22**		**Compliance with labor regulations**
5		**Anti-corruption**	**23**		**Employee care and retention**
6	Environment	General waste	**24**		**Health and safety**
7		Packaging Materials	**25**		**Training Development**
8		Energy	**26**		**Against child or forced labor**
9		Reducing carbon footprint	**27**	Product liability	**Technology innovation**
10		Exhaust emissions	28		Maintaining customer health and safety
11		Water	29		Labeling with clear and true product information
12		Discharge of sewage	**30**		**Intellectual property rights**
13		Avoiding the impact on the ecological environment	**31**		**Compliance with product and service-related regulations**
14		Helping suppliers reduce their impact on the environment	**32**		**Post-sales service and customer feedbacks**
15		**Hazardous waste**	**33**		**Customer privacy**
16		**Compliance with environmental regulations**	**34**		**Enhancement of product and service quality**
17		Safeguarding Laboratory Animal Care	35		Biosecurity
18	Employment	Hours and holidays			

2. INNOVATION AS 'BRIGHT SWORD', TRAILBLAZER FOR THE FUTURE

To realize the corporate mission of "making the human and nature healthier through biotechnology", GenScript always adheres to the core values of innovation, inspires itself with the "Bright Sword" spirit and pursues breakthroughs in biogene synthesis, constantly exerting positive influences upon the world. We are striving to accelerate the resolution of major problems in the biomedical field and to advance the gospel for the rehabilitation of cancer patients. Our scientific research achievements have obtained the authoritative certification of Enterprise Intellectual Property Management (GB/T 29490). With 16 years of solid groundwork, we are able to enjoy a promising future.

2.1 Devoting to Research and Development

GenScript takes innovation as the most significant driving force for our business and continuously applies new technologies as the front runner of biotechnology services. Currently, one out of every four synthetic genes in the world comes from GenScript. During the reporting period, the artificial gene synthesis bio-product produced by GenScript has been entitled 'Individual Champion Product in Manufacturing Industry', which epitomizes the comprehensive innovation achievements under the practice of GenScript's dedicated research and development (hereinafter referred as 'R&D').

Graphic: Certificate of Manufacturing Individual Champion Product

In the process of R&D, GenScript pays close attention to the synergy among industries, universities and research institutes, and have joined hands with several organizations to set up R&D centres. Such centres will enable us to actualize top-notch transformation efficiency of products throughout R&D, production and clinical application, as well as constructing a one-stop platform for the discovery and development of biopharmaceuticals. Meanwhile, GenScript focuses on communicating with the government and other regulatory agencies, and has won the unanimous recognition of the government, the media and the public by presenting its steady achievements.

To facilitate the synergy of industries and universities, GenScript signed a strategic cooperation memorandum with the Innovation Centre for Immune Therapy (ICIT) of Tsinghua University

On 13th June 2018, GenScript signed a memorandum of strategic cooperation with ICIT to commence in-depth cooperation in the discovery and development of biopharmaceuticals and to facilitate the transformation of high-potential scientific research projects into drugs with clinical value.

Through this partnership, the two sides will bring Tsinghua University's superiority of immunology research and talent pool into full play and highly utilize Genscript's one-stop technology platform of discovering and developing biological drug, together accelerating the R&D and industrialization of innovative immunological drugs and immunotherapy.

GenScript won Best Innovative Listed Company Award presented by Sina Finance

On 12th December 2018, GenScript won Best Innovative Listed Company Award at the International Development Forum of Chinese Listed Companies & Golden Lion Award Ceremony of HKEx Listed Companies. As the award address put it, "they (refer to the awarded companies) have both innovative genes and the courage to change; they open up new industries and embrace innovation; they are the main force driving the development of Chinese enterprises".

2.2 Becoming "Legend"

At the American Society of Clinical Oncology (ASCO) Annual Conference in June 2017, Nanjing Legend Biotechnological Co., Ltd. (hereinafter referred as "**Nanjing Legend**"), a subsidiary of GenScript Biotech Corp., deeply impressed all attendants with its 100% overall response rate in early clinical trials for treating multiple myeloma patients. Its innovative application of chimeric antigen receptor T-cell (CAR-T) therapy also staged as the focus of attention and welcomed great feedbacks from the international community.

Life as a Miracle – A Dialogue with CAR-T Patient Zhang Qi

Zhang Qi, a 48-year-old man, had suffered from multiple myeloma for nearly eight years. Since he underwent all kinds of treatments but failed, he was encouraged by the whole family to receive the free CAR-T therapy provided by Nanjing Legend at the Second Affiliated Hospital of Xi'An Jiaotong University. About ten days after the therapy, Zhang Qi was discharged from hospital and returned home without any symptoms except a low-grade fever that lasted for a week. Thanks to the CAR-T therapy, he could get rid of all chemotherapy drugs, and he felt truly thrilled about this, "as I stop taking drugs, my body is gradually recovering in all aspects and I feel alive again. Though my immunity is still deficient, I could walk outdoors and exercise as a normal person!".

A few months later, the attending excitedly told Zhang Qi that the results were confirmed to be negative, and no malignant cancerous lesions occurred. On hearing this, he immediately established a "CAR-T Patient Discussion Group" together with several multiple myeloma patients. In this group, patients could share CAR-T related information and cheer each other to be hopeful about life. Until now, nearly 350 multiple myeloma patients have joined the group. Zhang Qi could never forget his motivation of establishing such a group, that is, "It is CAR-T, Legend and Genscript that make my life a miracle. I wish more people could be as lucky as me!".

When initiating Nanjing Legend, GenScript positioned it as an "innovative enterprise". We invited Dr. Fan Xiaohu, the key opinion leader in the field of immunotherapy, to be the chief scientific officer of Nanjing Legend, and rapidly attracted a large group of innovative returnees. To date, we have accumulated rich research and development experience in immunotherapy, carved out a stable transformation channel, integrated CAR-T cell immunotherapy development with comprehensive immunotherapy research, and possessed independent intellectual property rights regarding tumor immunotherapy and cell gene therapy.

By the end of 2018, the multiple myeloma CAR-T preparation (LCAR-B38M) has obtained clinical trial approval from regulatory agencies in both China and the United States. In detail, it has already entered the clinical trial phase in the U.S. and the preparatory phase of clinical trials in China. During the reporting period, Nanjing Legend has earned a remarkable reputation by partaking in many first-class industrial exchanges and international seminars.

In May 2018, Dr. Fan Xiaohu participated in the 2018 Shanghai Cell Therapy International Symposium as a special guest and introduced the latest progress of CAR-T clinical trials.

In June 2018, Nanjing Legend was invited to attend the CAR-TCR Cell Therapy Asia Summit. We shared the progress of CAR-T/TCR-cell therapy and discussed the industry's opportunities and challenges with hundreds of experts and representatives from the global cell therapy industry.

In July 2018, at the 4th Chang'An Breast Diseases Conference held in Xi 'An, Nanjing Legend was invited to share the latest research discoveries in the field of precision therapy, bringing a grand academic feast for all participants.

In August 2018, China Precision Medicine and Immunotherapy summit (PMIO) was held in Shanghai, where Nanjing Legend delivered a speech on the cutting-edge technologies and industry development trends in the field of cell therapy.

In October 2018, Nanjing Legend was invited to attend the International Cell Therapy Summit in Shanghai as a panel speaker. Nanjing Legend presented the revolutional role of immune cell therapy led by CAR-T therapy to the future medicine science.

In December 2018, at the 2018 American Society of Hematology (ASH) Annual Meeting in San Diego, USA, Nanjing Legend and hematologists around the world discussed and learned about the latest hematology research progress.

For Nanjing Legend, innovation is the sword to break new ground; quality and data control are the shields to back up its stable development. According to the requirements of *Good Manufacturing Practice (GMP) (2010 Edition)*, we have structured a complete quality management system covering all aspects of personnel, facilities, warehousing, testing, release, etc., and comprehensively created an open technology-driven biopharmaceutical R&D service platform. Currently, we have formed a complete industrial microbial R&D and industrialization platform practicing enzyme screening, genetic engineering, protein engineering modification, and the optimization and application research of fermentation process under GMP standards. Stringent quality and data control have determined the robust and stable market performance of Nanjing Legend.

We also actively promote the industry standardization and normalization process. We engaged in the formulation of the "National Institute for Food and Drug Control – Quality control testing research and non-clinical considerations for CAR-T cell therapy" and participated in a closed-door discussion about "Points to consider for the application of clinical trial pharmaceutical research on cell therapy products and respective application materials". In the long run, Nanjing Legend is composing the "legend" for GenScript.

Honour Summary of Nanjing Legend in 2018

National Science and Technology Major Project – Major New Drug Innovation Award;
Entitled "Jingsu Invisible Mini-Giant Enterprise (2018-2020)";
Jiangsu Special Fund for Scientific and Technological Achievement Transformation;
Entitled "Jiangsu Innovative Entrepreneur Team";
Entitled "Nanjing Unicorn Enterprise"

2.3 Maintaining Achievements

As an innovation-oriented enterprise, GenScript defends its own intellectual property rights with a sufficient and precise management system. We have formulated policies including "Patent Management System" and "Trademark Management System", and required every new hire to participate in the awareness training on trade secrets protection.

Since we obtained the intellectual property management system certification in 2017 and fully implemented China's *Enterprise Intellectual Property Management* standards, we have been advancing towards a standardized, systematic and specified intellectual property management status. We aim to develop creativity with standards, mobilize employees for invention and creation, and further enhance the core value of GenScript.

Graphic: Certificate of Intellectual Property Management System

Within the reporting period, GenScript has achieved further breakthroughs in patent acquisition and continued to extend its patent application layout of Patent Cooperation Treaty (PCT). The PCT is an international cooperation treaty in the field of patents, which mainly deals with the submission, retrieval and review of patent applications and judges their rationality of technical information dissemination. Through the PCT, applicants can request patent protection for their inventions in multiple countries and regions simultaneously by only submitting an "international" patent application. As PCT is considered to be the most marked sign of progress to facilitate international cooperation, applying for PCT patents has become a crucial pathway for GenScript to demonstrate and protect its core technologies.

Patent Summary of GenScript in 2018

25 patents were obtained;
Accumulatively obtained 71 patents;
A total of 48 PCT patent applications were filed.

3. QUALITY COMES FIRST, TRUST WEIGHS HEAVY

For GenScript, quality is the "lifeline" and trust is the "passport". We stick to the mission of "making the human and nature healthier through biotechnology" and follow the principle of "quality as the first, customer as the most important". For long, we have been committed to establishing a quality management system from procurement, production, delivery to post-sale services. By collaborating with upstream and downstream partners, we endeavour to build a convenient, secure and trustworthy biotech industrial chain.

3.1 Optimizing Procurement

GenScript regards procurement management as the first step of quality control. This year, we carried forward the centralized procurement and supplier management system on all fronts, and introduced subdivided procurement rules to meet procurement demands, progressively fulfilling the essential of "controlling quality from the source".

We have already established a centralized supplier management and procurement system that could significantly strengthen the controllability of company-wide procurement practices. We have successively issued "Supplier Management System", "Supplier Evaluation Form", "Procurement System" and related policies to specify the procurement process management, supplier evaluation indicators, supplier risk assessment and other dimensions. By virtue of the centralized procurement system, we are enabled to leverage the Company's overall strength as a group and to properly avoid fraud and compliance risks throughout the procurement and compliance processes.

To guarantee fair procurement, the Procurement Department, the Quality Department, the demand department and the functional department would form a special supplier review team to assess potential suppliers' capabilities of providing qualified products or services on a regular basis. For cooperated suppliers, we will classify them into Class A suppliers and Class B suppliers, and then evaluate their performance in terms of qualifications, costs, services, etc. We would also take specified indicators such as single timeliness or trade safety (required by Authorized Economic Operator) into consideration. As of 31st December 2018, GenScript has employed 810 suppliers.

As GenScript expands, procurement demands are becoming ever diversified. Therefore, in the year 2018, we dived into various procurement demands and introduced scientific and specific procurement sub-systems targeting at different procurement activities.

Procurement Guidelines for Chemicals

- Both precursor chemicals and explosive chemicals need to be operated in compliance with national laws and local regulations;
- Procurement of precursor chemicals must strictly follow the procurement list, and be conducted by special personnel according to Environment, Health and Safety EHS requirements; Each procurement must be filed at the local public security bureau;
- Explosive chemicals are filed annually at the local public security bureau due to the current limited kinds.

Procurement Guidelines for Engineering Projects

- We apply a comprehensive scoring model to avoid price competition, and would adjust the proportion of technology and quality scores based on technological and quality requirements;
- We establish an independent engineering supplier database. The demand department and the Engineering Department shall evaluate partnered suppliers quarterly, and the evaluation results would be the basis for final project evaluation;
- We must confirm on-site EHS rules in engineering contracts; for large-scale projects, we put legends into the on-site safety contracts, clearly define elements of safety hours, site protection measures, etc., and offer workers with security training before the construction starts.

Procurement Guidelines for GMP Products

- We divide materials into three categories concerning their impacts on product quality: Class A (key materials that are in direct contact with the product in the process); Class B (important materials not in direct contact with the product but have a potential impact on product quality); Class C (non-critical materials that have no direct impact on the intrinsic quality of the product);
- We adopt different supplier evaluation methods for A/B/C material suppliers. Evaluation on Class A material supplier includes all aspects of supplier information, on-site audit, sample testing, small test/process verification, stability investigation, quality agreements, modification, etc. The evaluation of other two types of material supplier relatively is simplified with decreasing importance.

3.2 Consolidating Quality

"Blaze the trail, pursue excellence" is the long-standing belief of GenScript. Quality control is an indispensable part of "excellence", since it is fundamental to downstream life science research and industrial applications. Bearing this in mind, we reinforce quality control and the quality policy of "being stable, innovative, timely, professional, and continuously improved", provide customers with finest products, and tirelessly contribute to research and industrial development of related fields.

Quantity Standardization

We devote ourselves to the formulation of quality standards and the subsequent standardization of quality management. Up to now, we have seamlessly integrated quality management systems into various operational systems such as System Applications and Products (SAP) and Manufacturing Execution Systems (MES). The integration ensures high consistency between quality management measures and the Company's operational processes. As a result, we successfully obtained the latest Quality Management System (ISO 9001:2015) certification, and comprehensively amended the quality system documents during the transition period. Meanwhile, we launched the Medical Device Quality Management Systems (ISO 13485:2016) certification project, which is now at the stage of defining the service lines, wrapping up gap analysis and developing the equipment verification plan. In the coming future, we will speed up the certification process of various systems, invite third parties to conduct external audits and make up for the detected deficiencies.

For each product, we designate a Quality Assurance (QA) and a Quality Control (QC) personnel to be accountable for production monitoring and finished product inspection. Considering the differences between R&D processes and the diversity of customer demands, we have customized the standard operating procedures (SOP) in line with R&D characteristics and customer requirements, and made the SOP training compulsory for all employees to absorb and practice.

Review SOP, Check Quality

During the reporting period, we specially initiated the "SOP Review Project". Together with 11 production departments, we revised 605 SOP documents in six months to improve the consistency between SOPs and actual operations. To effectuate amended SOPs, we have adopted methods of distributing SOP documents on site, gathering employees to read SOP early in the morning, as well as organizing group discussion over SOPs, etc. With SOP awareness and skills, we strive to produce high-quality products at full strength.

Being both the maker and supporter of technologies, we highly recognize the transformative role of automation in product quality control. In 2018, we introduced a large amount of automation equipment and educated employees with the automation SOPs, thereby releasing the burden on frontline production personnel, reducing the error rate and improving delivery efficiency.

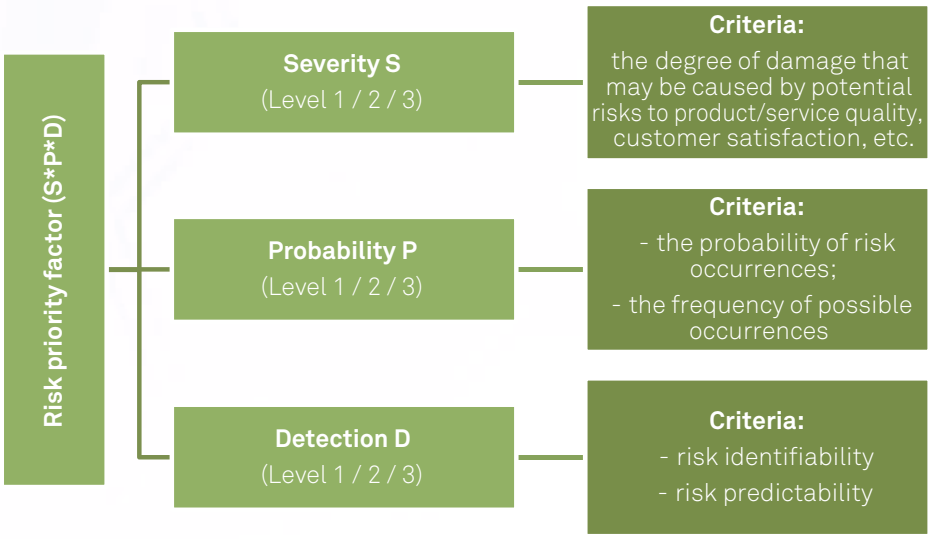
Tecan High-throughput Purification Workstation Boosts Production

The Tecan High-Throughput Purification Workstation uses the Te-Chrom module with the Tecan multi-channel loading robot to parallelize and collect up to eight protein samples simultaneously. The workstation can be paired with a commercial pre-packed spin column or a proprietary resin filler to ensure that the sample is at a low temperature of 4 degrees Celsius. The introduction of this equipment not only saves labor, but also avoids cross-contamination, providing comprehensive protection for fast delivery of high-quality products.

We advocate all staff to raise quality awareness and participate in quality management. Based on the "Quality Reward and Punishment System", employees have been encouraged to take precautions against quality accidents through self-inspection, mutual inspection and special inspection. Quality-related suggestions have been collected via telephone, email, suggestion box, WeChat public account, etc. In the reporting period, we held a total of 30 quality awareness trainings and 35 quality safety trainings to lay a solid foundation for achieving the overall quality management objectives.

Quality Risk Management

Since quality management is becoming ever normative, we are bound to build a quality risk management and control system to fully respond to regulations including GMP 2016 Edition. We have stipulated an array of operational procedures from risk evaluation, risk control, risk communication to risk assessment based on the existing "Quality Risk Management Control System", and we particularly appoint a quality risk management team in each department to operate quality risk management and control measures.



Graphic: Three parameters of quality risk assessment

Quality risk assessment is the premise for quality risk control, with a focus on the identification, analysis and evaluation of quality risks. Under the quality risk assessment framework, severity (S), probability (P) and detection (D) are three commonly accepted parameters to quantify the risk priority factor. We would take appropriate risk control measures (e.g. reducing, avoiding and accepting risks) regarding the calculated factor, and later regularly reflect the risk control outcomes for further upgrades.

During the reporting period, we generalized the application of "Risk Opportunity Assessment Response Form" and "Quality Risk Assessment Form" at the company level and the department level respectively, conducting rigorous audits and filing. As we track emerging quality risks, we can update the forms in time to ensure the dynamics, quick-responsiveness and ongoing improvement of GenScript's quality risk management.

It took only twelve hours to fight against short-selling

In September 2018, GenScript was confronted with an unprecedented short-selling. The short seller accused Nanjing Legend of forging CAR-T technology and clinical data, which resulted in a slump in GenScript's share price. Facing this false accusation, we adopted the strategy of "no concealment, no false reporting, fight with sincerity, respond with positivity", and responded to the criticism with professional quality control processes and recorded data of the CAR-T project. It was the meticulous quality control measures and the supervision in every process adopted by GenScript that made the short-selling institutions fail to knock us down. As expected, shareholders and the market quickly restored confidence and GenScript's share price soon bounced back.

Throughout 2018, there were no recalls due to product quality or safety issues.

3.3 Perfecting Services

"Being loyal to customers, being accountable always" is a key tenet for GenScript. Through years of unremitting efforts, we have established trusting relationships with major pharmaceutical companies, biotechnology companies and well-known research institutes around the world, providing them with high-quality products and wholehearted services.

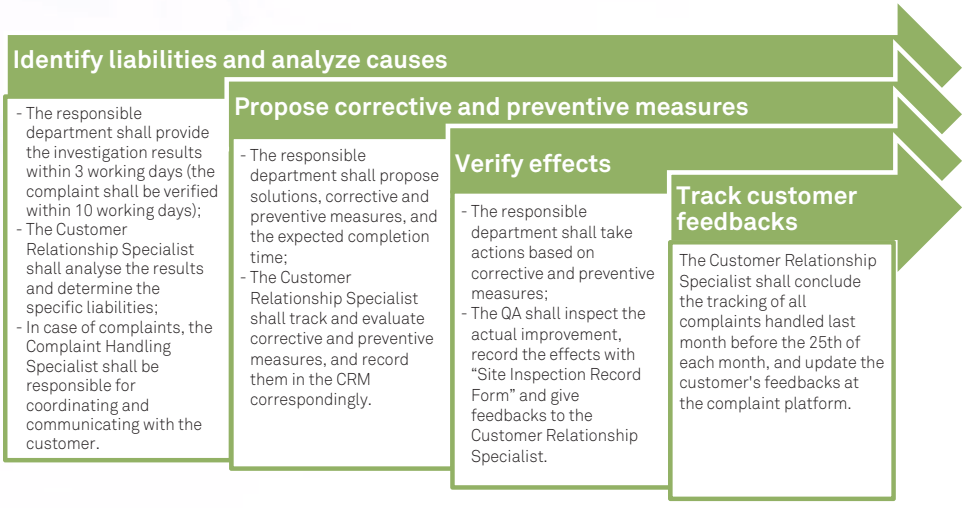
Customer Communication

We maintain positive, smooth and efficient communication with our customers and prioritize their needs under all circumstances. In 2018, we harnessed "Customer Opinion Management Measures" to clearly define the responsibilities and standards of customer communication for all departments. We expect every employee to shoulder the responsibility of actively collecting customer opinions, effectively handling customer complaints and reasonably adopting customer suggestions for the ultimate purpose of increasing customer satisfaction.

We have framed a modular consumer relationship management (CRM) system that allows our employees to record, track and share information about customer relationship management. The Consumer Relationship Specialists are responsible for gathering and analyzing customer opinions monthly, tapping into potential customer needs, and providing directions to R&D and productions teams. To understand customer satisfaction, we employ multiple methods including regular return visits, the satisfaction evaluation section of online ordering interfaces, satisfaction questionnaires, etc. In 2018, GenScript's customer satisfaction was 88.18%, maintaining a steady increase.

In both domestic and international markets, we have set up customer complaints platforms, with which external customers and internal employees can timely upload customer suggestions and complaints. We exercise "Deviation Handling and Corrective Control Procedures" for rectifying measures to meet customer expectations. The latest statistics indicate that the customer satisfaction with GenScript's customer opinion handling measures was at a relatively high level in 2018. Our next step is to further enhance the efficiency of complaint handling and the effectivity of corrective or preventive actions, insomuch that a better customer opinion handling mechanism could be forged.

Within the reporting period, we received a total of 846 complaints, and the number of complaints has risen compared to last year. This is mainly due to two reasons: firstly, the number of orders increased because of the expanded businesses; secondly, with the optimized customer opinion platform, customer can upload feedbacks more conveniently and GenScript can fully improve its services in a timely and sufficient manner.



Graphic: Customer Opinion Handling Process

Privacy Protection

Being a biotech enterprise, GenScript will be exposed to a large amount of confidential information when collaborating with customers. The capacity of preventing information from leaking is primary for GenScript to maintain customer relationships and sustain customer trust.

As of now, we have formulated "Public Network Usage Regulations", "System Rights Management Regulation", "Business Data Management Regulation", "Mobile Storage Device Usage Regulation", etc. to steer customer privacy protection at the system level. During the reporting period, we have entrenched information security by pinpointing the risk points of network security, user security, terminal security, and data security through analyzing enterprise information flows. With the known risk points, we have adopted responsive strategies to fully realize data and confidentiality protection.

Cyber Security

- No access to internal network of unauthorized client;
- Data encryption between sites;
- Apply reliable firewalls;

User Security

- Enhanced password and screen protection policies;
- Management strategies and technical measures to ensure that users only have access to the applications and resources necessary for their work;

Terminal Security

- Strengthening the defense capabilities of anti-virus software;
- Centralized backup of laptop hard drive data;
- Setting the notebook hard drive unlock password to avoid physical theft;
- Introducing Virtual Desktop Infrastructure (VDI) Project to enhance desktop data security;
- Remote monitoring and erasing of mobile devices using mobile device management (MDM) solutions;

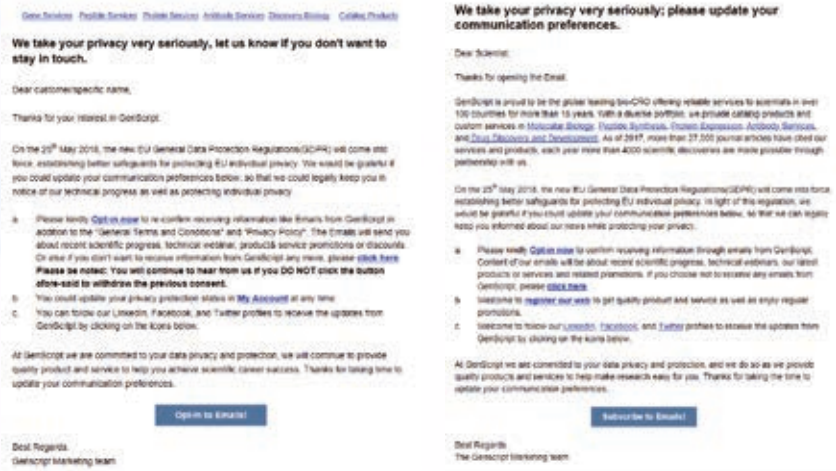
Data Security

- Independent review prior to mail delivery;
- Ensuring that all uploaded content and files are fully documented for auditing;
- Implementing a screen watermark to prevent data leakage via picture taking.

In addition, we actively follow up the General Data Protection Regulations (GDPR) of the European Union via integrating abundant internal resources to achieve compliant operations. We promptly send privacy statements to our customers and earnestly respect for their privacy choices. We reconstructed multiple existing systems to ensure that customer privacy choices are carried out at the business level.

GDPR, the reassurance of customer privacy protection

In June 2018, GenScript sent a privacy protection email to the current stock customers, requesting customers to choose their own approaches of privacy disclosure.



We take your privacy very seriously, let us know if you don't want to stay in touch.

Dear customerspecific name,

Thanks for your interest in GenScript.

On the 25th May 2018, the new EU General Data Protection Regulations(GDPR) will come into force, establishing better safeguards for protecting EU individual privacy. We would be grateful if you could update your communication preferences below, so that we could legally keep you in notice of our technical progress as well as protecting individual privacy.

a. Please kindly Opt-in now to re-confirm receiving information like Emails from GenScript in addition to the "General Terms and Conditions" and "Privacy Policy". The Emails will send you about recent scientific progress, technical webinar, product& service promotions or discounts. Or else if you don't want to receive information from GenScript any more, please click here. **Please be noted: You will continue to hear from us if you DO NOT click the button afore-said to withdraw the previous consent.**

b. You could update your privacy protection status in My Account at any time.

c. You can follow our LinkedIn, Facebook, and Twitter profiles to receive the updates from GenScript by clicking on the icons below.

At GenScript we are committed to your data privacy and protection, we will continue to provide quality product and service to help you achieve scientific career success. Thanks for taking time to update your communication preferences.

Opt-in to Emails!

Best Regards,
Genscript Marketing team

We take your privacy very seriously; please update your communication preferences.

Dear Scientist,

Thanks for opening the Email.

GenScript is proud to be the global leading bio-CRO offering reliable services to scientists in over 100 countries for more than 15 years. With a diverse portfolio, we provide catalog products and custom services in Molecular Biology, Peptide Synthesis, Protein Expression, Antibody Services, and Drug Discovery and Development. As of 2017, more than 27,500 journal articles have cited our services and products, each year more than 4000 scientific discoveries are made possible through partnership with us.

On the 25th May 2018, the new EU General Data Protection Regulations(GDPR) will come into force, establishing better safeguards for protecting EU individual privacy. In light of this regulation, we would be grateful if you could update your communication preferences below, so that we can legally keep you informed about our news while protecting your privacy.

a. Please kindly Opt-in now to confirm receiving information through emails from GenScript. Content of our emails will be about recent scientific progress, technical webinars, our latest products or services and related promotions. If you choose not to receive any emails from GenScript, please click here.

b. Welcome to register our web to get quality product and service as well as enjoy regular promotions.

c. Welcome to follow our LinkedIn, Facebook, and Twitter profiles to receive the updates from GenScript by clicking on the icons below.

At GenScript we are committed to your data privacy and protection, and we do so as we provide quality products and services to help make research easy for you. Thanks for taking the time to update your communication preferences.

Subscribe to Emails!

Best Regards,
The Genscript Marketing team

4. "ARTISANS" AS BUILDERS, SHOULDER TO SHOULDER

The driving force behind GenScript's persistent innovation lies in talented individuals and harmonious teams. We deem employees as builders of our promising future, and develop their sense of belonging and ownership through equal recruitment platforms, diverse work environments, sufficient development opportunities, scientific incentives, and rich cultural activities. In the meantime, we hammer at creating a highly collaborative and challenging team and motivating the team's enthusiasm and creativity to better realize the strategic development of GenScript.

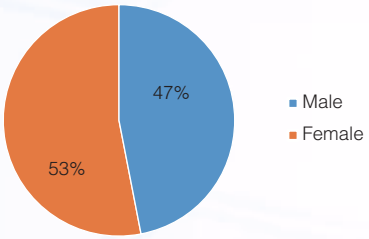
4.1 Advocating Talents

Recruitment Status

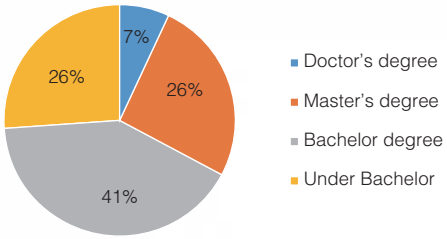
"Best person for the best job" is GenScript's pivotal recruitment standard. As a high-tech enterprise with rapid development, we concentrate on training high-end technical talents, practical business talents and core management talents so as to lay a solid foundation for R&D, market development and corporate governance.

We strictly abide by the relevant laws and regulations of the countries where the operations are located, including *Labor Law of the People's Republic of China and Fair Labor Standards Act (FLSA)*, etc. Based on these laws, we have issued the "Recruitment Management System" to guide the Company's recruitment process. We cling to a fair and equal employment concept, pay full attention to the candidate's business ability, personal qualities, development potential and value congruence, and never discriminate against individuals due to their background, gender, age, sexual orientation, religious beliefs and other background factors. Meanwhile, we fully protect the legitimate rights and interests of every employee, resist employing child labor in any form, eliminate forced labor caused by violence, threats and illegal restrictions on personal freedom, and severely curb and punish workplace harassment. The Company has never found any incidents involving the use of child labor and forced labor.

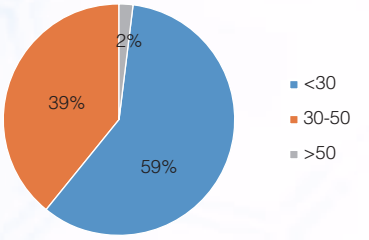
By the end of 2018, the number of employees of GenScript has increased significantly to 2,620, increased by 35.6% over the previous year. The recruitment status of GenScript in the light of group categorization is as the following:



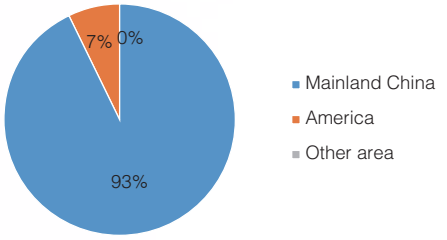
By Gender



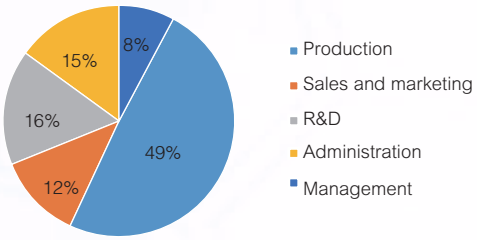
By Academic Qualification



By Age

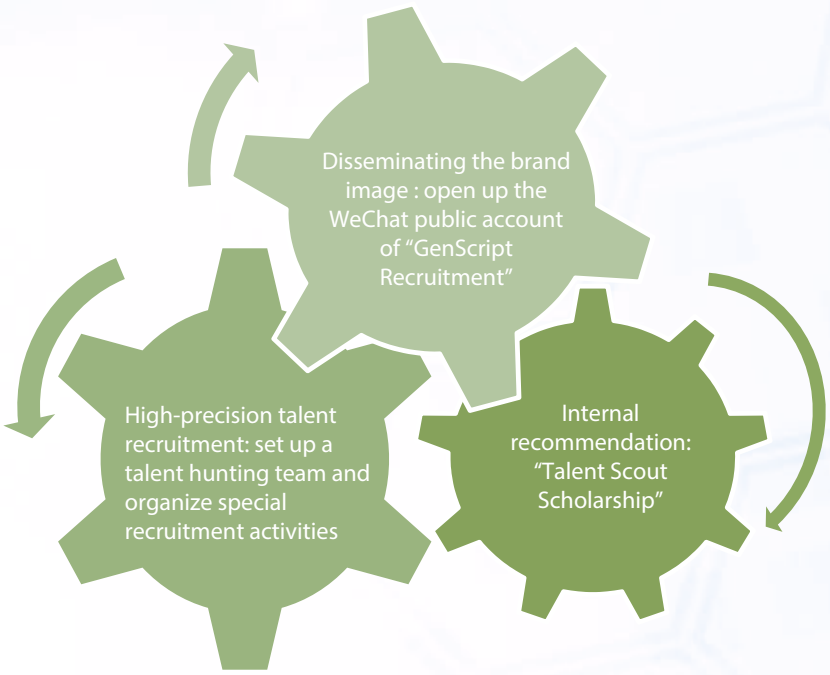


By Region



By Job Function

GenScript is an enterprise earnestly demanding for professionals. Given strategic considerations, we have targeted the goal of "key talent introduction" and explored multi-channel and multi-level recruitment and employment methods during the reporting period, aiming to build the talent pool for GenScript's future development.



Graphic: Talent Recruitment Highlights

In addition to the talent introduction project, we have further established a talent mobility mechanism to promote interactions between business sections. We expect that every employee can be trained in the most appropriate position and become an irreplaceable role within GenScript.

Such a scientific and diversified recruitment system has empowered GenScript to continuously recruit talents from all over the world, form strong R&D teams and develop mature operation teams. During the reporting period, Nanjing GenScript Biotech Co., Ltd. (hereinafter referred to as "Nanjing GenScript"), one of GenScript's subsidiaries, was honored with the qualifications of establishing post-doctoral national independent workstation. Nanjing Bestzyme Bio-engineering Co., Ltd. (hereinafter referred to as "Nanjing Bestzyme"), another GenScript's subsidiary, obtained the qualification of launching post-doctoral national sub-workstation. Currently, five doctors have been inbound.

Talent Management

While talent pool is the cornerstone of our business operation, talent management determines the stage of enterprise development. GenScript regards human resource management as a long-term systematic project and works tirelessly.

During the reporting period, we made major adjustments and updates on the organizational structure of human resources management, and established the "three pillars of human resources" to quickly respond to the changes in the talent needs of GenScript in the development process, providing accurate and professional talent protection services.

HRBP Team	SSC Team	COE Team
• Serving specific business units, going deep into the frontline, understanding business needs, and providing one-stop solutions. • Services including: optimizing the organizational structure of the business unit; providing talent recruitment supports; motivating and retaining key talents; providing targeted training.	• Serves as the "Human Resources Sharing Service Center". • The services including: strengthening the counter service awareness of the basic personnel service team; improving the workflow and work efficiency; optimizing the on-the-job service process;publicizing the tax knowledge.	• Serving the development of human resources strategy. • The services including:launching fast and accurate recruitment activities; organizing talent inventory and providing talent analysis; organizing departments to carry out KPI analysis, diagnosing departmental target management issues, assessing departmental priorities and job responsibilities.

Graphic: Three pillars of human resources

At the same stage, we launched 15 department-level controlled documents including "Performance Management System", "Organization Performance Management Implementation Rules" and "Employee Performance Management Implementation Rules", so as to implement control over all aspects of human resources management and effectively promote the standardization of performance management. On this basis, we introduce external management tools, such as strategic decoding methodology and personal performance commitment (PBC) tools, to simultaneously enhance the core competitiveness of enterprises and employees.

With an efficient, powerful and systematic talent management model, GenScript won several "Best Employers" awards during the reporting period.

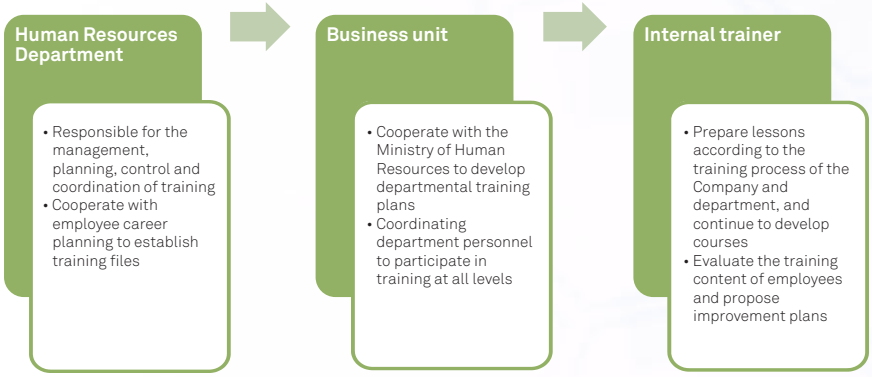
	Best employer of the year (Zhilian recruitment)		Human Resource Management Excellence Award
	Innovative extraordinary employer (hunting)		College students' favorite employers (Street Network)

4.2 Cultivating "Artisans"

GenScript firmly believes that every talent needs to learn knowledge and develop skills with the times to ensure sustainable development of individuals and organizations. As a knowledge- and technology- driven company, we have the obligation and ability to provide our employees with professional knowledge and skills training and corresponding career development opportunities, so that employees can think and benefit.

Employee Training

GenScript strives to build itself into a learning organization and develop a unique training system that is oriented towards employee responsibilities and development prospects. To this end, we have developed the "Training Management System" and the supporting "Internal Lecturer Management System", "Course Development Management Measures" and "Credit Management System", etc. We uphold the training principle of "comprehensively improving employee knowledge, skills and work efficiency in a people-oriented manner" and the goal of "strengthening the relevance, effectiveness and practicality of training". With the principle and the goal, we categorize and specify the training responsibilities, content classification, demand collection, planning, implementation and evaluation, archiving, etc.



Graphic: Training Management Process

In the form of training, we further deepened the combination of training content and employee needs, designed and proposed a training project system with the characteristics of GenScript, and made significant progress during the reporting period.

Graphic: Five training dimensions

Young Talent Project

- Targeted group: high-skilled and young employees; to train their stress resistance and comprehensive quality;
- Measures: 4 closed training, tutor system, expansion training, interviews, general quality elective courses, etc.;
- Results: The final number of employees reached 170, and 10 employees left. The turnover rate was only 5.88%;

Leadership Training Project

- "Captain" training (for junior management): expanded from Nanjing to Zhenjiang and North America, and the coverage rate of junior management exceeds 95%;
- "Colonel" training (for middle management): developed 7 courses, covering 94 person-time on-the-job directors, managers, and manager trainees to fill the gap in the leadership training of middle management;

Professional Training Program

- Targeted group: specialized business personnel in various departments;
- Measures: Experts of 5 major training series (R&D, technology, marketing, sales, technical support) sorted out the key tasks and capabilities of each series, extracted best practices for curriculum development, trained employees with the curriculum and tested them with tests;
- Outcomes: Overall satisfaction in R&D reached 94.3%, with confidence and self-assessment for project, experiment and delivery of R&D results.

Graphic: Highlights training program

During the reporting period, we have actively improved the training system and fully empowered our employees. The total number of trainees reached 8,798, and the average number of training sessions reached 16.92 hours. The detailed training situation is as follows:

	Male		Female		In total	
	Trained person-time	Average training hours	Trained person-time	Average training hours	Trained person-time	Average training hours
Production	1,915	13.16	2,283	16.66	4,198	15.05
Sales	558	13.53	739	16.12	1,297	14.98
R&D	687	18.16	743	20.42	1,430	19.38
Administration	461	7.39	466	8.54	927	8.01
Management	625	25.45	321	26.60	946	25.89
Total	4,246	14.39	4,552	16.45	8,798	16.92

Employee Promotion

GenScript adopts a dual channel promotion system, one channel for the management and the other channel for the professionals. Being a learning organization at the first place, we also aim to become an artisanship-oriented enterprise, encouraging employees to make progress in biotechnology. We expect employees to make full use of the Company's comprehensive training system to improve their professional knowledge and technical level, and to go through the professional channel to obtain a clearer and more substantial development return.

In addition to the dual channel, we have established two promotion modes: ranking promotion and position promotion. The promotion of the ranks is based on the training files and job performance evaluation results, and requires employees to pass the rank review in terms of performance and professional knowledge and skills. When a job is vacant, internal employees can conduct open competition and receive a job promotion. This dual promotion model can increase the flexibility while ensuring the stability of the promotion system.

4.3 Connecting Hearts

Labour relations are not the only connection between a company and its employees. In GenScript's view, an excellent enterprise should not only achieve business breakthroughs via talent building, but also continuously deepen the emotional connection between employees and organizations, employees and employees, etc. We sincerely expect all employees to experience care and warmness in GenScript.

Employee Communication

Transparent and effective employee communication facilitates the building of trust, understanding and confidence at all levels of the Company. Therefore, GenScript has developed a series of two-way communication mechanisms to provide opportunities for employee and the management to have dialogues, deliver employee opinions and management expectations, and promote mutual understanding of the problems and solutions faced by the Company.

Graphic: Employee communication channel

CEO Luncheon

From March to October 2018, GenScript held "CEO Luncheons" in Nanjing and Zhenjiang for eight times, inviting 79 high-performance (S-level) employees from all departments of the Company and recently promoted employees of the 2018. At the luncheon, the Company's CEO Dr. Zhang, vice presidents, other senior management and employees gathered together to share work experience. The management answered the employees' questions, and took notes of employees' difficulties and pain points in work; when the event was over, feedback was sent back to relevant departments for improvement. On the one hand, the luncheon guides all employees to pay attention to the high-performance oriented culture and enhances the incentive effect of employee excellence; on the other hand, it draws the distance between employees and senior management closer to provide a platform for the management to understand the frontline voices and opinions.

Employee Welfare

GenScript believes that safeguarding employee benefits will help to enhance employees' sense of belonging to the Company, promote the Company's cohesiveness, and create a harmonious atmosphere for the Company. Therefore, we have designed and provided a humanized welfare system based on the protection of employees' statutory rights and interests.

In terms of salary and benefits, we have the "Salary and Welfare Improvement Plan", which will carry out salary adjustment semi-annually, and increase the talent loyalty through rich and predictable salary and benefits. In addition to salary, we provide employees with a variety of subsidies covering accommodation, transportation, meals and festivals. We also prepare annual medical examination, major illness medical insurance and accident insurance for each employee. In terms of work-life balance, we limit the number of overtime hours and travel time per month, and arrange for employees to take vacations according to overtime and travel conditions. At the same time, we encourage our employees to build a sense of ownership and motivate employees by granting options based on their performance. In terms of difficult assistance, we have set up a charity fund within the Company to solve problems for employees who are bothered with financial difficulties and serious illnesses. We expect all employees to feel the solicitude from the Company by caring all their needs.

Employee Activities

Rich cultural and recreational activities can help employees maintain a healthy body and a positive attitude, and promote communication between employees. GenScript constantly evolve and enrich employee activities, and is committed to creating a cultural and entertainment platform with GenScript's characteristics. Today, GenScript has developed the running festival, Huashan sword, anniversary celebration, employee skill competition, etc. into a brand of corporate culture activities, attracting all members to participate and creating a good memory for all members.

5 Generations of Brilliance, 10 forces of Creation

On 15th August 2018, GenScript held the "5 Generations of Brilliant, 10 Forces of Creation – GenScript's 16th Anniversary & 5/10 Anniversary Staff Appreciation Meeting". Employee representatives from various departments of the Company shared their career development and struggles within the Company. The management issued an anniversary ring for the 5/10th Anniversary Office, thanking them for their long-term commitment to the Company's continued efforts to grow.

Huashan on the sword, master showdown

From September to November 2018, GenScript's 2018 "Huashan Argument – Employee Skills Competition" was launched. The competition consisted of six courses, including pipette, purification (primer, protein, peptide), English and EXCEL, which attracted a total of more than 400 employees to participate in the showdown. The size and final score of this year's competition have been greatly improved compared to previous years. Through the Employee Skills Competition, the Company aims to motivate employees to gain enthusiasm, cultivate lifelong learning habits, and promote their development while improving their business skills.

5. GUARD THE ENVIRONMENT, CARE FOR LIFE

While providing extensive and comprehensive life science research and application services, GenScript is also concerned about the impact of business operations on the environment and employee health. In order to monitor and control energy consumption in R&D and production processes, and to reduce the environmental impact of emissions, we have established an Environmental, Health and Safety (EHS) department and have set strict standards for employee safety and health management. GenScript further revised "*the EHS Management Manual*" in 2018 to guide the implementation of EHS management with a higher standard. It will also conduct daily inspections and enhance the EHS management system of each subsidiary to achieve GenScript's EHS management objectives.

5.1 Operating Sustainably

We strictly abide by relevant laws and regulations covering "*Environmental Protection Law of People's Republic of China*", "*Law of the People's Republic of China on Prevention and Control of Water Pollution*", "*Law of the People's Republic of China on Prevention and Control of Pollution from Environmental Noise*" and "*Law of the People's Republic of China on the Prevention and Control of Environmental Pollution by Solid Waste*". We carefully manage and treat wastewater, exhaust gas and solid waste in accordance with "*the EHS Management Manual*" to ensure that all pollutants are emitted compliantly. GenScript regularly entrusts third parties to conduct environmental monitoring, and examines the operation of exhaust gas and wastewater treatment facilities based on environmental monitoring results. At present, the compliance information of Nanjing GenScript's pollutant treatment is disclosed by the "Environmental Information" section of the Company's official website.

Waste water

GenScript attaches great importance to the effective treatment and the compliant discharge of wastewater. Taking Nanjing GenScript as an example, the sewage mainly includes household wastewater, laboratory wastewater, animal room flushing water and other kinds generated during our R&D and production processes. The wastewater, after being treated by the internal sewage treatment plant to reach Level Three of "*the Integrated Wastewater Discharge Standard*", will be discharged to the local Science Park Wastewater Treatment Plant via the municipal sewage pipe network. At the exit of the internal sewage treatment plant, we have set up an online sewage monitoring system linking to the government to monitor the real-time sewage discharge concentration and ensure stable discharge of sewage.

Exhaust gas

In terms of exhaust emissions, GenScript's headquarters and subsidiaries have made corresponding improvements to different types of exhaust emissions. For Nanjing GenScript, its exhaust gas is mainly from laboratory and animal rooms. We strictly abides by local emission standards, builds a sound ventilation system, and effectively collects hazardous gas emitted during the experiment. We require that any operation that may cause air pollution must be carried out in a fume hood, after which the exhaust gas shall be adsorbed by activated carbon and then discharged via rooftop. For Jinan BestZyme Bio-engineering Co,. Ltd (hereinafter referred as "**Jinan BestZyme**"), its exhaust emissions are mainly from coal-fired boilers. In 2018, Jinan BestZyme replaced coal-fired boilers with gas-fired boilers, significantly reducing the emissions of sulfur dioxide and nitrogen oxides.

Waste

GenScript is constantly trying to develop alternatives and technologies to decline hazardous chemicals. Through experiments, we collect data and conduct analysis to diminish the generation and emissions of heavy metal pollutants, thereby expanding environmental and social benefits.

Use RBS detergent as an alternative lotion to reduce hazardous waste generation

We have found out that RBS detergent (a highly efficient water-based cleaner) can replace potassium dichromate washes in daily production. The original heavy chromic acid washing liquid is prepared from concentrated sulfuric acid, potassium dichromate and water with a validity period of half a year, featuring heavy metal chromium and strong acidity. RBS detergent, as an alternative lotion, mainly consists of sodium hydroxide, sodium hypochlorite, etc. It does not contain heavy metals and can be effective for about 25 months. The use of RBS detergents reduces the generation and emission of heavy metal contaminants while lowering the safety risk during usage.

The EHS department arranges daily personnel to collect, weigh and centrally classify the waste generated by each department. It promptly contacts qualified third-party companies to conduct hazardous waste disposal and regularly report the hazardous waste system. GenScript organizes hazardous waste management training every year and implements training results through daily inspections to strengthen hazardous waste management. During the reporting period, our average general waste disposal intensity was 0.35 tons/10,000 USD, and average hazardous waste (including medical waste) disposal intensity was 3.91 tons/million USD.

Sludge drying treatment to reduce sludge production

In June 2018, GenScript invested 55.4 thousand USD and used sludge drying measures to reduce sludge moisture and consequently the amount of sludge to be transported. The wet sludge is treated by a plate- and-frame filter-press. Then it enters a low-temperature drying treatment facility, by which the weight of sludge can be lowered by about 60% after drying. In 2018, the amount of sludge engendered will decrease by about 3 tons per month.

Sewage statistics	2017	2018
Sewage disposal (cubic meters)	148,054	**196,899**
Number of non-compliance incidents for sewage COD content	0	**0**
Annual COD disposal (tons)	12.90	**28.16**
Annual NH-N disposal (tons)	0.8	**0.9**

GenScript's sewage mainly comes from its subsidiary Jinan BestZyme. In 2018, Jinan BestZyme Phase II project was started and now still in the running-in period. As the the innovative enzyme preparation project and spray drying project were put in place, the total amount of sewage and pollutants correspondingly increased compared with 2017.

Exhaust emission statistics	2017	2018
Exhaust emissions (1,000 cubic meters)	95,728	**614,988**
Emission of smoke and dust (tons)	1.70	**0.13**
Sulfur dioxide emissions (tons)	7.12	**0.41**
NOx emissions (tons)	13.54	**2.25**

1. In 2018, GenScript's subsidiary Jiangsu GenScript Biotechnology Co., Ltd. ("**Jiangsu GenScript**") fully activated the new plant equipment. Its peptide production was different from that of Nanjing GenScript, for the amount of exhaust gas generated was huge. Besides, the exhaust gas treatment facilities and processing capacity of the Jiangsu GenScript plant are significantly improved, so the total amount of exhaust gas increased significantly;

2. In 2018, GenScript's subsidiary Jinan BestZyme comprehensively carried out the boiler-to-gas conversion project, and the amount of pollutants discharged from the exhaust gas after natural gas was greatly reduced.

Waste Disposed	2017	2018
Domestic waste generated (tons)	2,703.13	**7,996.33**
Hazardous waste (excl. medical waste) (tons)	36.82	**640.21**
Medical waste (tons)	275.47	**263.93**

1. In 2018, Jinan BestZyme Phase II was started and its current status is still unstable. The innovative enzyme preparation project and the spray drying project were put into production, generating huge amount of general waste.

2. The hazardous waste is mostly derived from Jiangsu GenScript, which fully activated the new plant equipment in 2018. The peptide production of Jiangsu GenScript, different from that of Nanjing GenScript, would engender much exhaust gas.

5.2 Cherishing resources

GenScript attaches great importance to the management of resources. During the reporting period, we formulated "*the Energy Management Measures*" to regulate 23 energy consumption issues in 8 categories including lighting power, office equipment and construction energy consumption. At the same time, we also conducted relevant training for all employees. In this way, we can guide employees to implement energy management details.

Air conditioning heating system energy-saving renovation project

In 2018, in order to reduce the amount of natural gas to downgrade the pollution from fossil fuel combustion, GenScript further implemented energy-saving renovation of animal room air-conditioning heating system by installing modular cooler-and-chiller water units and electric heating devices. Such measures lowered the usage frequency of gas boilers, thereby lessening emissions of soot, SO_2 and NO_x.

We have also strengthened water resources management measures, reinforced staff's water-saving training and formed a water-saving culture. We are committed to strengthening the reuse of water and saving water resources. In this year, the Company upgraded the water reuse project of rabbit house, landscape pool and lawnspray. The upcycle increases the utilization range and efficiency of circulating water; in 2018, the total amount of recycled water was about 43,000 tons. During the reporting period, GenScript promoted the realization of water saving goals for all employees through project transformation.

Energy consumption and carbon emissions	2017	2018
Energy consumption (MWh)	17,819	**46,874**
Energy intensity (MWh/USD10,000)	1.17	**2.03**
Natural Gas Consumption ('000 cubic meters)	810.62	**2,896.68**
Natural Gas Consumption Intensity (cubic meters/USD10,000)	53.10	**125.39**
Greenhouse gas emissions (tons CO_2-e) (Scope 1 only)	1,752.70	**6,094.81**
Greenhouse gas emissions (tons CO_2-e) (Scope 2 only)	13,782.80	**36,958.02**
GHG intensity (tons CO_2-e/USD10,000)	1.02	**1.86**

Water consumption statistics	2017	2018
Water consumed ('000 cubic meters)	212.99	**410.65**
Water recycled ('000 cubic meters)(Grey water recycling system is only installed at the headquarters in Jiangning District, Nanjing)	10.23	**44.31**
Water consumption intensity (cubic meters/USD10,000)	13.95	**17.78**

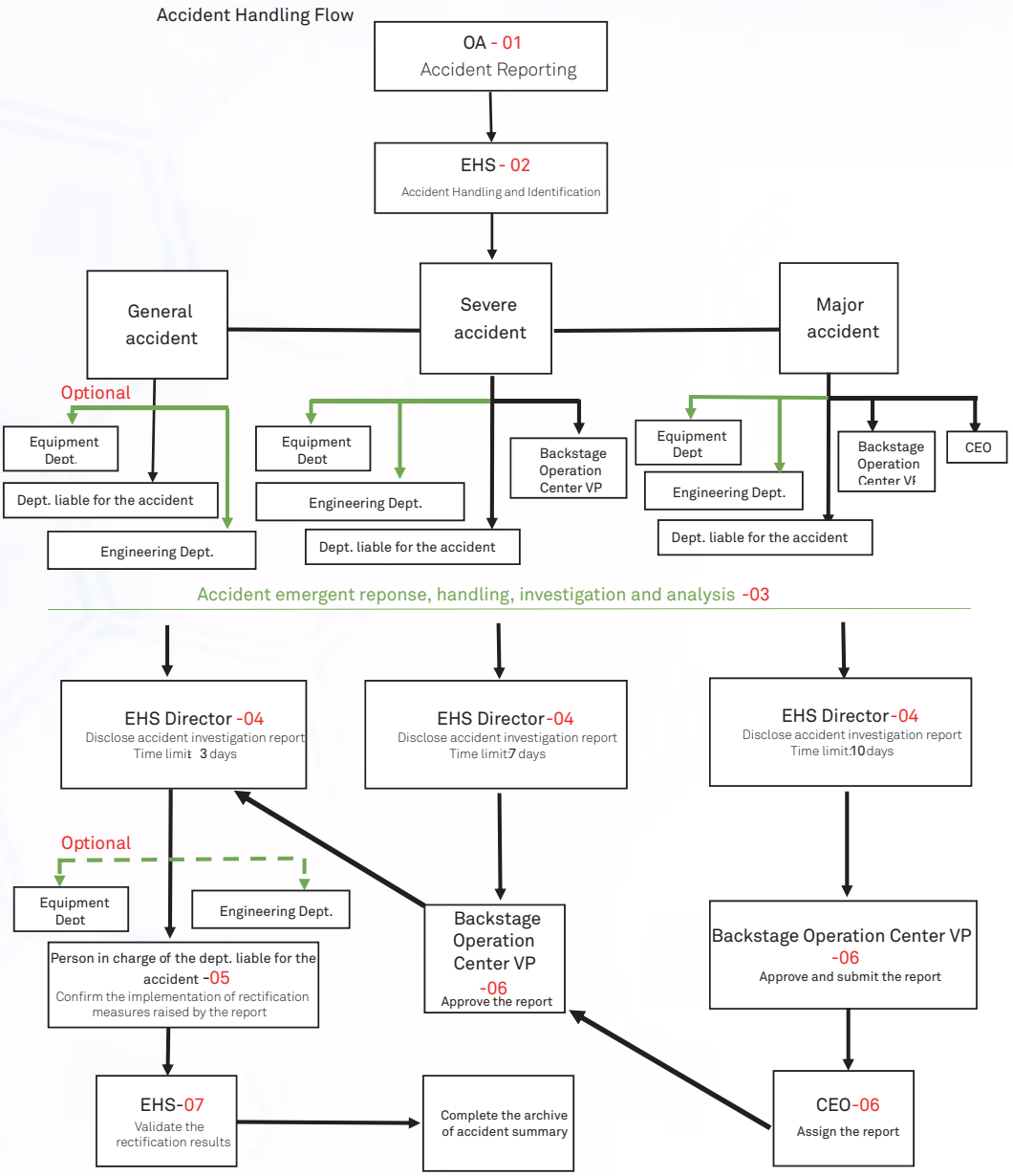
In 2018, Jinan BestZyme Phase II was started and is still in the running-in period. In the same period, the innovative enzyme preparation project and the spray drying project were put into production, whereupon the amount of energy and water consumption climbed remarkably.

5.3 Producing Safely

GenScript is devoted to protecting our employees at work. EHS Department is responsible for managing these safety hazards and mitigating the risk. We have gradually improved our techniques, upgraded our facilities, and regularly checked and maintained our equipment. We provided training to reduce the risk of safety accidents and reach our goal of zero accident.

GenScript provides employees at high-risk positions with personal protective equipment. We conduct occupational hazard assessment and arrange occupational physical examinations for employees every year. We have also established health records. Occupational hazards are posted on the Company's bulletin board to ensure that all employees are fully aware of the safety and health risks inherent in their positions, keeping our staff vigilant of safety and health protection.

Every month EHS liaisons at different departments work with EHS staff on safety inspections of production sites, employee dormitories and canteens. We regularly organize safety and health training. The safety training that has been carried out so far includes: "Electrical Safety", "Elevator Safety", "Hazardous Chemicals Safety Handling and Storage", "Pressurized Container Safety Operation", "Precursor Chemicals Control", "Hazardous Waste Management", "Protection against Occupational Hazards". We also call for employees to take assessment after completing the training. We have developed detailed reports and procedures for security accidents, ensuring that employees are properly responding to security risks through the "Fire Emergency Evacuation and Fire Extinguisher Training".



Graphic: Safety accident report flow chart

GenScript has developed an inclusive accident management system that incorporates the definition and grading of accidents, as well as requirements of accident reporting, rescue, responsibility and assessment. When an accident occurs, the Department of Accident shall promptly report the accident to the EHS Department. The EHS Department firstly organizes the rescue, and then clarifies the accident level according to the Company's accident management system and accident handling process. Following this, the department initiates an accident investigation and later issues an accident investigation report. After carrying out the cause analysis, proposing corrective measures and implementing them, we can finally confirm the rectification results and practice safety assessment. At present, we have introduced an automated process based on the accident handling process to realize timely system reporting.

During the reporting period, due to the noise impact caused by the operating fans, we equipped the relevant personnel for earplugs/ear cups in the rabbit room, and we are planning to install double-layer acoustic glass to minimize the impact of noise on the experimenters' health.

In addition, we have added several "mixed gas monitors" and "oxygen content monitors" in different areas. The monitoring room supervises the alarm devices in real time to ensure that the rescue and evacuation work can be carried out in time when abnormal conditions occur in the monitoring area.

GenScript's work accident condition in 2018 is shown in the table below. Overall, the number of accidents has remained stable and slightly reduced from the previous year. For the accidents that have occurred, GenScript has taken reasonable improvement measures to take proper protection against accidents and further strengthen employee safety training. During the reporting period, there were no deaths caused by work-related injuries.

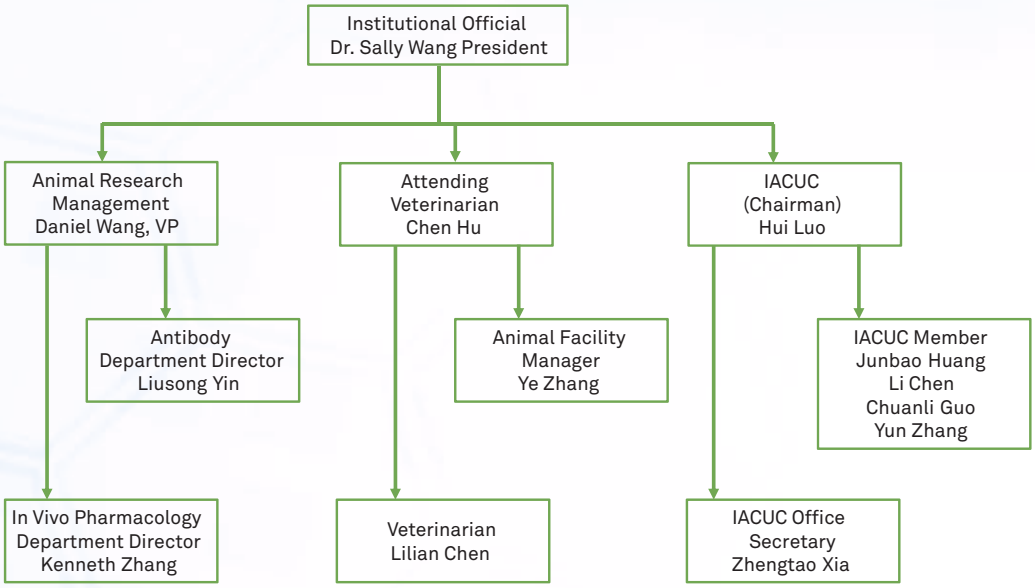
Safety statistics	2017	**2018**
Number of incidents	4	**3**
Number of days lost due to incidents	232	**316.50**

5.4 Doing Moral experiment

GenScript will inevitably use laboratory animals such as rats and rabbits in drug experiments. Animal welfare is a profound issue in environmental ethics. While lowering environmental impact and coexisting with the ecological environment, GenScript also pays close attention to the relationship between humans and animals, treats laboratory animals equally, and proactively improves their situation.

GenScript strictly abides by "*the Regulations on the Administration of Laboratory Animals*" and "*the Measures for the Administration of Laboratory Animal Licenses (Trial)*". GenScript vigorously responds to the animal welfare requirements expected in the international scope. The research program design can not only meet the purpose of scientific research, but also promote the development of animal-related science and guarantee the rights and interests of experimental animals to the maximum extent. We promise that all laboratory animals will be raised and used scientifically and humanely. Our approach is to optimize experiments, lessen and replace the use of laboratory animals.

GenScript's Institutional Animal Care and Use Committee (IACUC) is responsible for auditing and monitoring monitoring the ethics of the Company's animal experiment program, as well as guaranteeing the animal welfare during the ordering, transportation, breeding and experimental research of various experimental animals. To better ensure the smooth operation of IACUC, we updated the IACUC members according to the discussion and voting results at the 2018 IACUC meeting. The new IACUC organizational structure is as follows:



Graphic: IACUC organization chart

During the year, IACUC added 10 new SOPs in animal housing management and animal welfare, revised 38 SOPs, IACUC provided post-update training for the appropriate personnel. We have further corrected the institutional system for animal housing management and animal welfare. We have hired professionals with veterinary qualification certificates and 8 years of animal welfare working experience to enhance the management of veterinary team. We also reinforces the awareness of animal welfare and animal biological characteristics, and implements animal welfare work effectively to ensure that international standards and company requirements are met. In 2018, GenScript's training on animal welfare includes but is not limited to:

Animal Welfare Training Program

Animal Welfare
Biological and Experimental Techniques for Small Mouse
Biological and Experimental Techniques for Big Mouse
Rabbit biology and Experimental Techniques
Incident Reporting System
Animal Disease Monitoring Technology
Animal Euthanasia Hands-on Practice Training

GenScript's animal housing facilities in the Nanjing headquarters are accredited by the Association for Assessment and Accreditation of Laboratory Animal Care (AAALAC) and the Office of Laboratory Animal Welfare of the National Institutes of Health of the United States (OLAW). GenScript regularly discloses and reports to local authorities on the ordering and usage of animals as required. During the reporting period, we adopted a series of improvement measures to ensure that animal welfare is fully fitted.

Place a cage for food and water

The animal buildings of laboratory rabbits and mice have all been equipped with mouse cages in replace of sticky mouse plates. We placed the cages at all entrances and exits of the two animal buildings in the cages, food and water sufficient for a week are prepared to secure the timely supply for trapped voles or escaped mice regarding animal welfare. For the captured voles or escaped mice, the veterinarian arranges for the corresponding euthanasia treatment, and the animal carcasses are treated as medical waste by a professional medical waste company.

Use a more comfortable rabbit cage to improve the living environment quality of rabbits

We provided a standard plastic rest pad for the laboratory rabbits so that the rabbits no longer contact the metal cage directly. The updated rest pad is not only easy to be cleaned and disinfected, but also enhances the animal's somatosensory comfort. Furthermore, we resized rabbit cages catering for rabbits' need, and purchased 23 sets of stainless steel automatic washing frame to secure enough feeding space for large animals.

6. GIVE BACK TO SOCIETY, WARM THE HOPE

GenScript's commitment to social responsibility is a significant support for the Company's foothold. We promote the bio-research technology and actively share it with the world, bringing health to the public. We are well aware of the importance of cultivating the future social talents and invest in this field as an important mean to give back to society. At the same time, we are also devoted to doing our part in social charity. During the reporting period, we donated a total of 54,332 USD for public charity and environmental protection. We also invested 112,360 USD to sponsor various research activities for promoting social welfare.

6.1 Promoting Health

The Company adheres to the philosophy of benefiting human health, actively carries out international exchanges and cooperation, and disseminates advanced concepts to more regions. This year, we held many forum meetings with well-known academicians and units, and cooperated with the government to obtain a number of special funds and a series of honors, which altogether built a solid foundation for better promoting high-efficiency drugs and bringing health to the public.

The First International Symposium on Synthetic Biology in 2018

From 20th to 21st September 2018, the first International Symposium on Synthetic Biology themed "Microbial Transformation of Natural Products – Trends, Prospects, Transformation", sponsored by GenScript, was held at Life Science and Technology Town, Jiangning District, Nanjing, Jiangsu Province. The symposium was initiated by Chinese and American academicians, and more than 100 authoritative experts and scholars from China, the United States, South Korea and New Zealand attended it. It focused on the most advanced synthetic biology theories and technologies, and shared the latest research progress in the field of synthetic biology. More importantly, it provided a platform for exchanges as well as cooperation between synthetic biology researchers at home and abroad, facilitating the transformation of high-tech scientific and technological achievements in synthetic biology.

6.2 Nurturing Talents

GenScript focuses on the cultivation of the future social talents. GenScript is willing to provide more opportunities for young talents who are interested in pursuing a career in biotechnology. We regularly organize field visits during which college students come to observe how biotech operates in the real world. Such visits can for the one hand develop students' interest and provide them with professional academic guidance, for the other hand invite and cultivate out-standing graduates to join with us. We will also extend our activities to primary and secondary schools, hoping that more children will love both biology and science and devote themselves to societal responsible development.

Popular science activity series "Through the Life Journey"

As a provincial and municipal life sciences popular science base, GenScript held a series of popular science activities named "Through the Life Journey" on 12th June, 2018 and invited fourth-grade students of Jiangning Science Park Primary School to attend the activities. Through small experiments and interactions of interesting biochemistry, we kindled the primary school students' interests in life sciences and sowing the dreams of being scientists in students' hearts.

iGEM Program

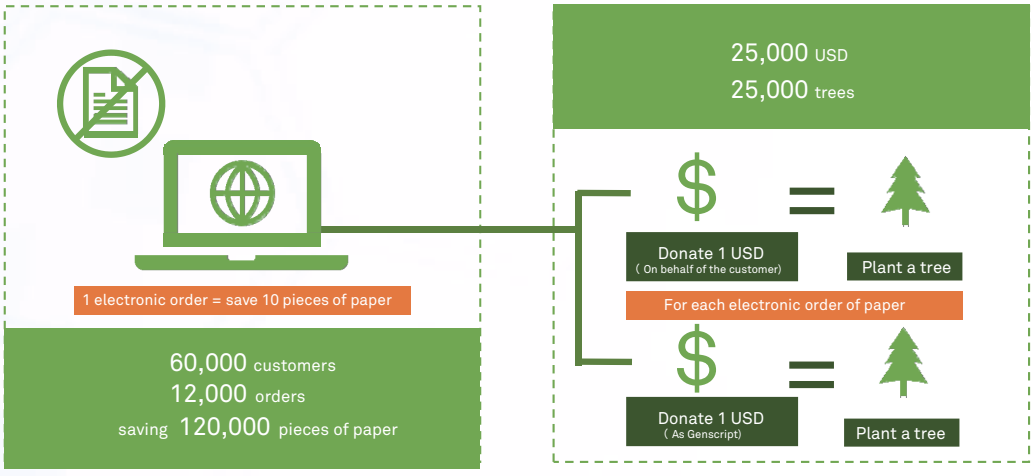
Since 2009, GenScript has continued to work with the International Genetic Engineering Machine Competition (iGEM) to help potential students achieve their goals. As of 2018, the team that GenScript funded won 26 gold medals, 8 silver medals, 13 bronze medals and multiple individual awards in iGEM. GenScript also took a vital role in promoting iGEM in China, wishing to stimulate the youngsters' interests in scientific research as well as bridge international education and cultural exchanges for Nanjing.

6.3 Caring for Society

GenScript energetically involves itself in public welfare, supports the socially underprivileged and swiftly responds to the social need. In 2018, we launched the Paperless Program, which contributed to the environmental protection, pollution reduction and waste minimization. We also advocated employees to participate in volunteer activities. We organized family members to join voluntary blood donation, running festivals and other public welfare activities so as to bring warmth to society.

Paperless Program

The Paperless Program of GenScript targets at the environmental protection, pollution reduction and waste minimization. GenScript calls on its customers to partake in the event and followed two initiatives: for one thing, GenScript will provide electronic product/service reports to customers instead of hard copies to reduce paper waste; for another thing, in each order, GenScript donated one USD on behalf of the customer and accordingly donated another one USD by itself to American Forests (https://www.americanforests.org). The two USD will support the plantation of two trees in endangered forests. During the reporting period, GenScript saved about 120,000 sheets of paper and planted 25,000 trees through the project.



APPENDIX I. LIST OF AWARDS AND CERTIFICATIONS FOR 2018

No.	Awards and Certifications
1	Individual Champion Product in Manufacturing Industry awarded by Ministry of Industry and Information Technology of the People's Republic of China (Artificial gene synthesis bio-product)
2	Independent Workstation for Post-Doctoral Scientific Research
3	Jiangsu Scientific and Technological Entrepreneur (Frank Zhang, CEO of the company, won the award)
4	Jiangsu Special Fund for Scientific and Technological Achievement Transformation
5	2018 Provincial Innovation and Entrepreneurship (Team/Talent/Doctorate)
6	Jiangsu Multinational Corporation Regional Headquarter
7	2018 Business Development Special Fund – Service Outsourcing Project
8	Jiangsu Enzyme and Bioreaction Engineering Research Centre
9	Nanjing Second – batch Unicorn Enterprise
10	Nanjing Second – batch Gazelle Enterprise
11	2018 Annual Top Technological Expert Gathering Program – A-class expert (the academician Jay D. Keasling won the prize)
12	Zhenjiang Top Talent Enterprise entitled "Jinshan Great Talent"

APPENDIX II. LIST OF DISCLOSURE POLICIES AND LEGAL REGULATIONS

Environmental protection	Environmental Protection Law of the People's Republic of China
	Law of the People's Republic of China on Prevention and Control of Water Pollution
	Law of the People's Republic of China on Prevention and Control of Pollution from Environmental Noise
	Law of the People's Republic of China on the Prevention and Control of Environmental Pollution by Solid Waste
Animal welfare	the Regulations on the Administration of Laboratory Animals
	the Measures for the Administration of Laboratory Animal Licenses (Trial)
labor	Labor Law of the People's Republic of China
	Labor Contract Law of the People's Republic of China
	Law of the People's Republic of China on Mediation and Arbitration of Labor Disputes
	Special Rules on the Labor Protection of Female Employees
	Law of the People's Republic of China on the Prevention and Control of Occupational Diseases
Product liability and service	Law of the People's Republic of China on Product Quality
	The advertisement law of the People's Republic of China
	Contract law of the People's Republic of China
Anti-commercial bribery law	The law of the People's Republic of China against unfair competition
Antitrust, company	Anti-monopoly Law of the People's Republic of China
	Company Law of the People's Republic of China
Information security	Cybersecurity Law of the People's Republic of China
	Interim Measures for the Administration of Human Genetic Resources
Intellectual property	Patent Law of the People's Republic of China
	Guidelines for patent examination
	trademark law of the people's republic of china
	Copyright law of the people's republic of china

APPENDIX III. INDEX OF ESG REPORTING GUIDE OF HKEX

Indicator	Description	Indexes
A. Environmental		
A1 Emissions		
General Disclosure	Information on the policies and compliance with relevant laws and regulations that have a significant impact on the issuer relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste.	5.1 Operating Sustainably
KPI A1.1	The types of emissions and respective emission data.	5.1 Operating Sustainably
KPI A1.2	Greenhouse gas emissions in total (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	5.2 Cherishing Resources
KPI A1.3	Total hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	5.1 Operating Sustainably
KPI A1.4	Total non-hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	5.1 Operating Sustainably
KPI A1.5	Description of measures to mitigate emissions and results achieved.	5.1 Operating Sustainably
KPI A1.6	Description of how hazardous and non-hazardous wastes are handled, reduction initiates and results achieved.	5.1 Operating Sustainably
A2 Usage of Resources		
General Disclosure	Policies on the efficient use of resources, including energy, water and other raw materials.	5.2 Cherishing Resources
KPI A2.1	Direct and/or indirect energy consumption by type (e.g. electricity, gas or oil) in total (kWh in '000s) and intensity (e.g. per unit of production volume, per facility)	5.2 Cherishing Resources
KPI A2.2	Water consumption in total and intensity (e.g. per unit of production volume, per facility)	5.2 Cherishing Resources
KPI A2.3	Description of energy use efficiency initiatives and results achieved.	5.2 Cherishing Resources
KPI A2.4	Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency initiatives ad results achieved.	5.2 Cherishing Resources
KPI A2.5	Total packaging material used for finished products (in tonnes) and, if applicable, with reference to per unit produced.	Not applicable due to business nature and characteristics of the Group. Packaging materials are not an important issue without disclosure.

Indicator	Description	Indexes
A3 The Environment and Natural Resources		
General Disclosure	Policies on minimizing the issuer's significant impact on the environment and natural resources.	5. Guarding the environment, caring for life.
KPI A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.	5. Guarding the environment, caring for life.
B. Social		
B1 Employment		
General Disclosure	Information on the policies and compliance with relevant laws and regulations that have a significant impact on the issuer relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare.	4.1 Advocating Talents
KPI B1.1	Total workforce by gender, employment type, age group and geographical region	4.1 Advocating Talents
KPI B1.2	Employment turnover rate by gender, age group and geographical region.	Will refine and disclose statistics in the future
B2 Health and Safety		
General Disclosure	Information on the policies and compliance with relevant laws and regulations that have a significant impact on the issuer relating to providing a safe working environment and protecting employees from occupational hazards	5.3 Producing Safely
KPI B2.1	Number and rate of work-related fatalities.	5.3 Producing Safely
KPI B2.2	Lost days to work injury.	5.3 Producing Safely
KPI B2.3	Description of occupational health and safety measures adopted, how they are implemented and monitored.	5.3 Producing Safely
B3 Development and training		
General Disclosure	Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities.	4.2 Cultivating "Artisans"
KPI B3.1	The percentage of employees trained by gender and employee category (e.g. senior management, middle management)	4.2 Cultivating "Artisans"
KPI B3.2	The average training hours completed per employee by gender and employee category.	4.2 Cultivating "Artisans"

Indicator	Description	Indexes
B4 Labor Standards		
General Disclosure	Information on the policies and compliance with relevant laws and regulations that have a significant impact on the issuer relating to preventing child and forced labor.	4.1 Advocating Talents
KPI B4.1	Description of measures to review employment practices to avoid child and forced labor.	4.1 Advocating Talents
KPI B4.2	Description of steps taken to eliminate such practices when discovered.	Due to the operational characteristics of the Group, the employed staff are required to have higher education levels and do not involve relevant situations
B5 Supply Chain Management		
General Disclosure	Policies on managing environmental and social risks of the supply chain.	3.1 Optimizing Procurement
KPI B5.1	Number of suppliers by geographical region.	3.1 Optimizing Procurement (Suppliers classified by region are confidential to the company and are not disclosed)
KPI B5.2	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, how they are implemented and monitored.	3.1 Optimizing Procurement
B6 Product Responsibility		
General Disclosure	Information on the policies and compliance with relevant laws and regulations that have a significant impact on the issuer relating to health and safety, advertising, labeling and privacy matters relating to products and services provided and methods of redress.	3.2 Consolidating Quality 3.3 Perfecting Services
KPI B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons.	3.2 Consolidating Quality
KPI B6.2	Number of products and service related complaints received and how they are dealt with.	3.3 Perfecting Services
KPI B6.3	Description of practices relating to observing and protecting intellectual property rights.	2.3 Maintaining Achievements
KPI B6.4	Description of quality assurance process and recall procedures.	3.2 Consolidating Quality
KPI B6.5	Description of consumer data protection and privacy policies, how they are implemented and monitored.	3.3 Perfecting Services

Indicator	Description	Indexes
B7 Anti-corruption		
General Disclosure	Information on the policies and compliance with relevant laws and regulations that have a significant impact on the issuer.	1.2 Responsibility Management
KPI B7.1	Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees during the reporting period and the outcomes of the cases.	1.2 Responsibility Management
KPI B7.2	Description of preventive measures and whistle-blowing procedures, how they are implemented and monitored.	1.2 Responsibility Management
B8 Community		
General Disclosure	Policies on community engagement to understand the needs of the communities where the issuer operates and to ensure its activities take into consideration the communities' interests.	6. Giving back to society, warm the hope
KPI B8.1	Focus areas of contribution (e.g. education, environmental concerns, labor needs, health, culture, sport).	6. Giving back to society, warm the hope
KPI B8.2	Resources contributed (e.g. money or time) to the focus area.	6. Giving back to society, warm the hope

INDEPENDENT AUDITOR'S REPORT

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To the shareholders of Genscript Biotech Corporation
(Incorporated in the Cayman Islands with limited liability)

OPINION

We have audited the consolidated financial statements of Genscript Biotech Corporation (the "Company") and its subsidiaries (the "Group") set out on pages 131 to 138, which comprise the consolidated statement of financial position as at 31 December 2018, and the consolidated statement of profit or loss, the consolidated statement of comprehensive income, the consolidated statement of changes in equity and the consolidated statement of cash flows for the year then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the consolidated financial statements give a true and fair view of the consolidated financial position of the Group as at 31 December 2018, and of its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with Hong Kong Financial Reporting Standards ("HKFRSs") issued by the Hong Kong Institute of Certified Public Accountants ("HKICPA") and have been properly prepared in compliance with the disclosure requirements of the Hong Kong Companies Ordinance.

BASIS FOR OPINION

We conducted our audit in accordance with Hong Kong Standards on Auditing ("HKSAs") issued by the HKICPA. Our responsibilities under those standards are further described in the *Auditor's responsibilities for the audit of the consolidated financial statements* section of our report. We are independent of the Group in accordance with the HKICPA's Code of Ethics for Professional Accountants (the "Code"), and we have fulfilled our other ethical responsibilities in accordance with the Code. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

KEY AUDIT MATTERS

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters. For each matter below, our description of how our audit addressed the matter is provided in that context.

We have fulfilled the responsibilities described in the *Auditor's responsibilities for the audit of the consolidated financial statements* section of our report, including in relation to these matters. Accordingly, our audit included the performance of procedures designed to respond to our assessment of the risks of material misstatement of the consolidated financial statements. The results of our audit procedures, including the procedures performed to address the matters below, provide the basis for our audit opinion on the accompanying consolidated financial statements.

Key audit matter	How our audit addressed the key audit matter
Revenue recognition – Bio-science services and products	
Revenue of bio-science services and products amounted to US$141,026,000 was recognized in 2018, which represents 61% of the total revenue. Revenue recognition has been identified as a risk, particularly in respect of the occurrence and accuracy of a significant volume of transactions and the timing of revenue recognition for sales of goods and rendering of services with deliveries occurring on or around year-end. In addition, the Group applies, for the first time, HKFRS 15 Revenue from Contracts with Customers for the current year's financial statements. Due to the significant volume of transactions, minor errors could, in aggregate, have a material impact on the financial statements. The Group's disclosure about accounting policies of revenue recognition is included in Note 2.4 summary of significant accounting policies and about revenue breakdown in Note 5 revenue, other income and gains of the financial statements.	We performed the review on management's assessment of revenue recognition under HKFRS 15. We carried out testing relating to internal controls. On a sample basis, we examined deliveries during the year to documentation to assess whether the revenue recognition criteria were met for control of goods or services is transferred to the customers at an amount that reflects the consideration to which the Group expects to be entitled in exchange for those goods or services. We performed sales cut-off test to check to the goods delivery note and client acceptance note for sales of goods and check to the service report download record for rendering of services. We performed monthly analysis to observe the sales trend and identify whether there are any unusual sales. We performed testing on journal entries to test for any management override of internal controls related to revenue recognition.
Revenue recognition – License and collaboration arrangement	
On 21 December 2017, the Group and Janssen Biotech, Inc. ("Janssen"), entered into a collaboration and license agreement ("the agreement") in the development, manufacture and commercialization of a chimeric antigen receptor (CAR) T-cell drug. Revenue of License and collaboration arrangement amounted to US$51,606,000 was recognized in 2018, which represents 22% of the total revenue. In addition, the Group applies, for the first time, HKFRS 15 Revenue from Contracts with Customers for the current year's financial statements. There are significant management judgments and estimations involved in identification of deliverables, allocation of total consideration to each deliverable and assessing the respective recognition criteria. The revenue recognition for the collaboration and license agreement may have a material impact on the financial statements. The Group's disclosure about accounting policies of revenue recognition is included in Note 2.4 summary of significant accounting policies and about revenue breakdown in Note 5 revenue, other income and gains of the financial statements.	We performed the review on management's assessment of revenue recognition under HKFRS 15, including management's judgement, taking into consideration all of the relevant facts and circumstances when applying each step of the model to the agreement. We reviewed management's accounting treatment, including management's identification of deliverables within the agreement and evaluated management's judgement about whether the identified deliverables represent separate units of accounting under HKFRS 15. We reviewed the management's estimation of the variable consideration amount included in the total consideration. We reviewed allocation of total consideration to each deliverable and key assumption used in the allocation method and respective recognition criteria for each deliverable. On a sample basis, we examined deliveries during the year to documentation to assess whether the revenue recognition criteria were met for control of goods or services is transferred to the customers at an amount that reflects the consideration to which the Group expects to be entitled in exchange for those goods or services.

OTHER INFORMATION INCLUDED IN THE ANNUAL REPORT

The directors of the Company are responsible for the other information. The other information comprises the information included in the Annual Report, other than the consolidated financial statements and our auditor's report thereon.

Our opinion on the consolidated financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the consolidated financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

RESPONSIBILITIES OF THE DIRECTORS FOR THE CONSOLIDATED FINANCIAL STATEMENTS

The directors of the Company are responsible for the preparation of the consolidated financial statements that give a true and fair view in accordance with HKFRSs issued by the HKICPA and the disclosure requirements of the Hong Kong Companies Ordinance, and for such internal control as the directors determine is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, the directors of the Company are responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors of the Company either intend to liquidate the Group or to cease operations or have no realistic alternative but to do so.

The directors of the Company are assisted by the Audit Committee in discharging their responsibilities for overseeing the Group's financial reporting process.

AUDITOR'S RESPONSIBILITIES FOR THE AUDIT OF THE CONSOLIDATED FINANCIAL STATEMENTS

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Our report is made solely to you, as a body, and for no other purpose. We do not assume responsibility towards or accept liability to any other person for the contents of this report.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with HKSAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with HKSAs, we exercise professional judgement and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.

- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the directors.

- Conclude on the appropriateness of the directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with the Audit Committee regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide the Audit Committee with a statement that we have complied with relevant ethical requirements regarding independence and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with the Audit Committee, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

The engagement partner on the audit resulting in this independent auditor's report is SIU FUNG TERENCE HO.

Ernst & Young
Certified Public Accountants
Hong Kong
22 March 2019

CONSOLIDATED STATEMENT OF PROFIT OR LOSS

Year ended 31 December 2018

	Notes	2018 US$'000	2017 US$'000
REVENUE	5	**231,017**	152,649
Cost of sales		**(72,478)**	(48,058)
Gross profit		**158,539**	104,591
Other income and gains	5	**18,941**	6,386
Selling and distribution expenses		**(38,771)**	(24,908)
Administrative expenses		**(40,582)**	(22,039)
Impairment losses on financial assets, net		**(977)**	–
Research and development expenses		**(74,076)**	(18,055)
Other expenses		**(121)**	(7,415)
Finance costs	7	**(52)**	–
Share of losses of associates		**(201)**	(39)
PROFIT BEFORE TAX	6	**22,700**	38,521
Income tax expense	10	**(1,941)**	(11,516)
PROFIT FOR THE YEAR		**20,759**	27,005
Attributable to:			
Owners of the parent		**21,216**	26,123
Non-controlling interests		**(457)**	882
		20,759	27,005
EARNINGS PER SHARE ATTRIBUTABLE TO ORDINARY EQUITY HOLDERS OF THE PARENT	11		
Basic		**US1.18 cents**	US1.52 cents
Diluted		**US1.15 cents**	US1.51 cents

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

Year ended 31 December 2018

	Notes	2018 US$'000	2017 US$'000
PROFIT FOR THE YEAR		**20,759**	27,005
OTHER COMPREHENSIVE (LOSS)/INCOME			
Other comprehensive income that may be reclassified to profit or loss in subsequent periods:			
Exchange differences:			
Exchange differences on translation of foreign operations		**(13,498)**	12,816
Net other comprehensive (loss)/income that may be reclassified to profit or loss in subsequent periods		**(13,498)**	12,816
Other comprehensive income that will not be reclassified to profit or loss in subsequent periods:			
Equity investments designated at fair value through other comprehensive income:			
Changes in fair value		**(11)**	–
Income tax effect		**–**	–
Net other comprehensive loss that will not be reclassified to profit or loss in subsequent periods		**(11)**	–
OTHER COMPREHENSIVE (LOSS)/INCOME FOR THE YEAR, NET OF TAX		**(13,509)**	12,816
TOTAL COMPREHENSIVE INCOME FOR THE YEAR		**7,250**	39,821
Attributable to:			
Owners of the parent		**8,471**	38,603
Non-controlling interests		**(1,221)**	1,218
		7,250	39,821

CONSOLIDATED STATEMENT OF FINANCIAL POSITION

31 December 2018

	Notes	2018 US$'000	2017 US$'000
NON-CURRENT ASSETS			
Property, plant and equipment	13	**158,013**	80,508
Advance payments for property, plant and equipment		**4,037**	2,460
Prepaid land lease payments	14	**17,414**	10,189
Goodwill	15	**15,287**	1,470
Other intangible assets	16	**19,642**	2,467
Investments in associates	17	**2,924**	614
Financial assets at fair value through profit or loss	18	**3,405**	–
Equity investments designated at fair value through other comprehensive income	19	**4,949**	–
Available-for-sale investments	19	**–**	1,136
Deferred tax assets	29	**11,842**	7,525
Total non-current assets		**237,513**	106,369
CURRENT ASSETS			
Inventories	20	**12,429**	6,878
Trade and notes receivables	21	**67,843**	255,351
Prepayments, other receivables and other assets	22	**21,889**	8,329
Financial assets at fair value through profit or loss	18	**70,056**	–
Available-for-sale investments	18	**–**	3,088
Pledged short-term deposits	23	**12,688**	392
Cash and cash equivalents	23	**494,558**	123,857
Total current assets		**679,463**	397,895
CURRENT LIABILITIES			
Trade and bills payables	24	**11,187**	8,154
Other payables and accruals	25	**73,944**	251,925
Interest-bearing bank borrowings	26	**10,502**	–
Tax payable		**16,766**	12,547
Contract liabilities	27	**41,018**	–
Government grants	28	**98**	90
Total current liabilities		**153,515**	272,716
NET CURRENT ASSETS		**525,948**	125,179
TOTAL ASSETS LESS CURRENT LIABILITIES		**763,461**	231,548

CONSOLIDATED STATEMENT OF FINANCIAL POSITION

31 December 2018

	Notes	2018 US$'000	2017 US$'000
NON-CURRENT LIABILITIES			
Contract liabilities	27	**262,127**	–
Deferred tax liabilities	29	**4,017**	342
Government grants	28	**4,018**	2,887
Total non-current liabilities		**270,162**	3,229
Net assets		**493,299**	228,319
EQUITY			
Equity attributable to owners of the parent			
Share capital	30	**1,836**	1,734
Reserves	33	**476,828**	216,075
		478,664	217,809
Non-controlling interests		**14,635**	10,510
Total equity		**493,299**	228,319

Zhang Fangliang
Director

Wang Ye
Director

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

Year ended 31 December 2018

	Attributable to owners of the parent										
	Share capital US$'000 (note 30)	Share premium* US$'000	Merger reserve* US$'000	Share option reserve* US$'000 (note 31)	Statutory surplus reserves* US$'000	Fair value reserve* US$'000	Retained earnings* US$'000	Exchange fluctuation reserve* US$'000	Total US$'000	Non-controlling interests US$'000	Total equity US$'000
At 31 December 2017	1,734	120,770	(20,883)	10,936	11,536	–	93,228	448	217,809	10,510	228,319
Effect of adoption of HKFRS 15	–	–	–	–	–	–	933	–	933	167	1,100
At 1 January 2018 (restated) (Note 2)	1,734	120,770	(20,883)	10,936	11,536	–	94,161	488	218,742	10,677	229,419
Profit for the year	–	–	–	–	–	–	21,216	–	21,216	(457)	20,759
Other comprehensive loss for the year:											
Change in fair value of equity investments designated at fair value through other comprehensive income, net of tax	–	–	–	–	–	(11)	–	–	(11)	–	(11)
Exchange differences on translation of foreign operations	–	–	–	–	–	–	–	(12,734)	(12,734)	(764)	(13,498)
Total comprehensive income for the year	–	–	–	–	–	(11)	21,216	(12,734)	8,471	(1,221)	7,250
Purchases of minority interests of the subsidiary	–	(297)	–	–	–	–	–	–	(297)	4,221	3,924
Acquisition of equity by minority shareholders	–	399	–	–	–	–	–	–	399	–	399
Equity-settled share option arrangements	–	–	–	8,852	–	–	–	–	8,852	–	8,852
Exercise of share options	33	3,479	–	(833)	–	–	–	–	2,679	–	2,679
Shares repurchased	(6)	(11,469)	–	–	–	–	–	–	(11,475)	–	(11,475)
Acquisition of a subsidiary	–	–	–	–	–	–	–	–	–	958	958
Transfer from retained profits	–	–	–	–	2,823	–	(2,823)	–	–	–	–
Issue of shares under the share placing option	75	251,218	–	–	–	–	–	–	251,293	–	251,293
At 31 December 2018	1,836	364,100	(20,883)	18,955	14,359	(11)	112,554	(12,246)	478,664	14,635	493,299

* These reserve accounts comprise the consolidated reserves of US$476,828,000 (For the year ended 31 December 2017: US$216,075,000) in the consolidated statement of financial position.

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

Year ended 31 December 2018

	Attributable to owners of the parent									
	Share capital US$'000 (note 30)	Share premium* US$'000	Merger reserve* US$'000	Share option reserve* US$'000 (note 31)	Statutory surplus reserve* US$'000	Retained earnings* US$'000	Exchange fluctuation reserve* US$'000	Total US$'000	Non-controlling interests US$'000	Total equity US$'000
At 1 January 2017	1,692	118,051	(20,883)	9,469	9,247	72,029	(11,992)	177,613	6,408	184,021
Profit for the year	–	–	–	–	–	26,123	–	26,123	882	27,005
Other comprehensive income for the period:										
Exchange differences on translation of foreign operations	–	–	–	–	–	–	12,480	12,480	336	12,816
Total comprehensive income for the year	–	–	–	–	–	26,123	12,480	38,603	1,218	39,821
Acquisition of equity by minority shareholders	–	(1,463)	–	–	–	–	–	(1,463)	3,202	1,739
Purchases of minority shareholders' equity	–	(55)	–	–	–	–	–	(55)	(318)	(373)
Equity-settled share option arrangements	–	–	–	2,811	–	–	–	2,811	–	2,811
Exercise of share options	42	4,237	–	(1,344)	–	–	–	2,935	–	2,935
Dividend distribution	–	–	–	–	–	(2,635)	–	(2,635)	–	(2,635)
Transfer from retained profits	–	–	–	–	2,289	(2,289)	–	–	–	–
At 31 December 2017	1,734	120,770	(20,883)	10,936	11,536	93,228	448	217,809	10,510	228,319

* These reserve accounts comprise the consolidated reserves of US$216,075,000 (For the year ended 31 December 2016: US$175,921,000) in the consolidated statement of financial position.

CONSOLIDATED STATEMENT OF CASH FLOWS

Year ended 31 December 2018

	Notes	2018 US$'000	2017 US$'000
CASH FLOWS FROM OPERATING ACTIVITIES			
Profit before tax		**22,700**	38,521
Adjustments for:			
Provision for the impairment of trade receivables and other receivables		**977**	546
Write-down of inventories to net realisable value	20	**388**	304
Depreciation of property, plant and equipment	13	**11,122**	6,465
Amortisation of other intangible assets	16	**1,582**	352
Amortisation of prepaid land lease payments	14	**230**	183
Loss on disposal of items of property, plant and equipment	6	**18**	260
Interest income		**(10,004)**	(857)
Investment income		**–**	(131)
Share of losses of associates		**201**	39
Fair value gains on financial assets at fair value through profit or loss		**(1,295)**	–
Finance costs	7	**52**	–
Equity-settled share option expenses		**8,852**	2,811
		34,823	48,493
Decrease/(increase) in trade and notes receivables		**211,809**	(235,875)
Increase in prepayments, other receivables and other assets		**(6,101)**	(5,296)
Increase in inventories		**(5,402)**	(2,945)
Decrease in government grants		**(320)**	(66)
Increase in trade and notes payables		**2,957**	3,802
(Decrease)/increase in other payables and accruals		**(1,129)**	11,374
Increase in contract liabilities		**68,993**	207,222
Increase in pledged time deposits		**(12,296)**	(190)
Cash generated from operations		**293,334**	26,519
Interest received		**4,017**	857
Income taxes paid		**(1,939)**	(6,008)
Net cash flows from operating activities		**295,412**	21,368

CONSOLIDATED STATEMENT OF CASH FLOWS

Year ended 31 December 2018

	Notes	2018 US$'000	2017 US$'000
CASH FLOWS FROM INVESTING ACTIVITIES			
Purchases of items of property, plant and equipment		**(70,839)**	(29,215)
Purchases of equity investments designated at fair value through other comprehensive income		**(4,960)**	–
Purchases of financial assets at fair value through profit or loss/available-for-sale investments		**(70,036)**	(4,224)
Purchases of prepaid land lease payments		**(8,104)**	(2,173)
Proceeds from disposal of items of property, plant and equipment		**–**	134
Purchases of intangible assets		**(666)**	(583)
Receipt of government grants		**1,594**	505
Receipt of investment income		**830**	131
Purchases of shareholdings in subsidiaries		**(27,595)**	–
Purchases of investments in associates		**(1,890)**	(653)
Others		**–**	(373)
Net cash flows used in investing activities		**(181,666)**	(36,451)
CASH FLOWS FROM FINANCING ACTIVITIES			
Proceeds from issue of shares		**251,293**	–
Purchases of non-controlling interest		**(297)**	–
Acquisition of equity by non-controlling interest		**4,620**	1,739
Exercise of share options		**2,679**	2,935
Proceeds from bank loans		**10,502**	–
Interest paid		**(49)**	–
Shares repurchased		**(11,475)**	–
Dividends paid		**–**	(2,635)
Net cash flows from financing activities		**257,273**	2,039
NET INCREASE/(DECREASE) IN CASH AND CASH EQUIVALENTS		**371,019**	(13,044)
Net foreign exchange differences		**(318)**	437
Cash and cash equivalents at beginning of year	23	**123,857**	136,464
CASH AND CASH EQUIVALENTS AT END OF YEAR	23	**494,558**	123,857
ANALYSIS OF BALANCES OF CASH AND CASH EQUIVALENTS			
Cash and bank balances		**106,884**	72,951
Non-pledged time deposits with original maturity of less than three months when acquired		**387,674**	50,906
Cash and cash equivalents as stated in the statement of financial position	23	**494,558**	123,857
Cash and cash equivalents as stated in the statement of cash flows		**494,558**	123,857

1. CORPORATE INFORMATION

Genscript Biotech Corporation (the "Company") was incorporated on 21 May 2015 as an exempted company in the Cayman Islands with limited liability under the Companies Law of the Cayman Islands. The registered office address of the Company is PO Box 10240, Harbour Place, 103 South Church Street, George Town, Grant Cayman KY1-1002, Cayman Islands.

The Company is an investment holding company. The Company's subsidiaries are principally engaged in the manufacture and sale of life sciences research products and services. The products and services mainly include life bio-science services and products, biologics development services, industrial synthetic biology products and cell therapy. The shares of the Company were listed on the Main Board of the Stock Exchange of Hong Kong Limited (the "Stock Exchange") on 30 December 2015.

In the opinion of the Directors, the ultimate holding company of the Company is GenScript Corporation ("GS Corp"), which was incorporated in the United States of America.

Information about subsidiaries

Particulars of the Company's principal subsidiaries are as follows:

Company	Place and date of incorporation/registration and place of business	Issued ordinary shares/ paid-up capital	Percentage of equity interest attributable to the Company		Principal activities
			Direct %	Indirect %	
Genscript (Hong Kong) Limited ("GS HK")	Hong Kong 8 January 2009	HK$ 155,000	–	100	Sale of life sciences research products and services
Nanjing Jinsirui Biotechnology Co., Ltd. ("Nanjing Jinsirui")	Mainland China 12 March 2009	US$ 88,020,000	–	100	Manufacture and sale of life sciences research products and services
Genscript USA Incorporated ("GS USA")	United States of America 26 March 2009	US$ 1,000	100	–	Manufacture and sale of life sciences research products and services
Jinsikang Technology (Nanjing) Co., Ltd. ("Nanjing Jinsikang")	Mainland China 30 April 2009	RMB 132,550,600	–	100	Manufacture and sale of life sciences research products and services
Genscript Japan Inc. ("GS JP")	Japan 7 July 2011	JPY 8,300,000	–	100	Sale of life sciences research products and services
Nanjing Bestzyme Bioengineering Co., Ltd. ("Nanjing Bestzyme")	Mainland China 6 June 2013	US$ 30,577,712	–	92.59	Manufacture and sale of life sciences research products and services

1. CORPORATE INFORMATION (continued)

Information about subsidiaries (continued)

Company	Place and date of incorporation/registration and place of business	Issued ordinary shares/ paid-up capital	Percentage of equity interest attributable to the Company		Principal activities
			Direct	Indirect	
			%	%	
Nanjing Legend Biotechnology Co., Ltd. ("Legend Nanjing")	Mainland China 17 November 2014	US$ 2,500,000	–	84.84	Manufacture and sale of life sciences research products and services
Shanghai Jingrui Biotechnology Co., Ltd. ("Shanghai Jingrui")	Mainland China 6 March 2015	RMB 5,000,000	–	100	Manufacture and sale of life sciences research products and services
Jinan Bestzyme Biological Engineering Co., Ltd. ("Jinan Bestzyme")	Mainland China 19 August 2009	RMB 38,888,341	–	57.26	Manufacture and sale of life sciences research products and services
Jiangsu Genscript Biotech Co., Ltd ("Jiangsu Jinsirui")	Mainland China 31 August 2016	RMB 324,632,500	–	100	Manufacture and sale of life sciences research products and services
Legend Biotech USA Incorporated ("Legend USA")	United States of America 31 August 2017	–	–	84.84	Manufacture and sale of life sciences research products and services
Legend Biotech Ireland Limited. ("Legend Ireland")	Ireland 30 November 2017	–	–	84.84	Manufacture and sale of life sciences research products and services
GenScript Biotech (Netherlands) B.V. ("GS EU")	Netherlands 6 December 2017	–	–	100	Manufacture and sale of life sciences research products and services
CustomArray, Inc ("CustomArray")	United States of America 1 January 2018	US$ 957,800	–	100	Manufacture and sale of life sciences research products and services
Anhui Precision Biotechnology Co., Ltd. ("Precision")	Mainland China 31 July 2018	RMB 5,294,200	–	62.22	Manufacture and sale of life sciences research products and services

The above table lists the subsidiaries of the Company which, in the opinion of the directors, principally affected the results for the reporting period or formed a substantial portion of the net assets of the Company and its subsidiaries (the "Group"). To give details of other subsidiaries would, in the opinion of the directors, result in particulars of excessive length.

2.1 BASIS OF PREPARATION

These financial statements have been prepared in accordance with Hong Kong Financial Reporting Standards ("HKFRSs") (which include all Hong Kong Financial Reporting Standards, Hong Kong Accounting Standards ("HKASs") and Interpretations) issued by the Hong Kong Institute of Certified Public Accountants ("HKICPA"), accounting principles generally accepted in Hong Kong and the disclosure requirements of the Hong Kong Companies Ordinance. They have been prepared under the historical cost convention, except for wealth management products and equity investments which have been measured at fair value. These financial statements are presented in United States dollars ("US$") and all values are rounded to the nearest thousand except when otherwise indicated.

Basis of consolidation

The consolidated financial statements include the financial statements of the Company and its subsidiaries (collectively referred to as the "Group") for the year ended 31 December 2018. A subsidiary is an entity (including a structured entity), directly or indirectly, controlled by the Company. Control is achieved when the Group is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee (i.e., existing rights that give the Group the current ability to direct the relevant activities of the investee).

The financial statements of the subsidiaries are prepared for the same reporting period as the Company, using consistent accounting policies. The results of subsidiaries are consolidated from the date on which the Group obtains control, and continue to be consolidated until the date that such control ceases.

Profit or loss and each component of other comprehensive income are attributed to the owners of the parent of the Group and to the non-controlling interests, even if this results in the non-controlling interests having a deficit balance. All intra-group assets and liabilities, equity, income, expenses and cash flows relating to transactions between members of the Group are eliminated in full on consolidation.

The Group reassesses whether or not it controls an investee if facts and circumstances indicate that there are changes to one or more of the three elements of control described above. A change in the ownership interest of a subsidiary, without a loss of control, is accounted for as an equity transaction.

If the Group loses control over a subsidiary, it derecognises (i) the assets (including goodwill) and liabilities of the subsidiary, (ii) the carrying amount of any non-controlling interest and (iii) the cumulative translation differences recorded in equity; and recognises (i) the fair value of the consideration received, (ii) the fair value of any investment retained and (iii) any resulting surplus or deficit in profit or loss. The Group's share of components previously recognised in other comprehensive income is reclassified to profit or loss or retained profits, as appropriate, on the same basis as would be required if the Group had directly disposed of the related assets or liabilities.

2.2 CHANGES IN ACCOUNTING POLICIES AND DISCLOSURES

The Group has adopted the following new and revised HKFRSs for the first time for the current year's financial statements.

Amendments to HKFRS 2	*Classification and Measurement of Share-based Payment Transactions*
Amendments to HKFRS 4	*Applying HKFRS 9 Financial Instruments with HKFRS 4 Insurance Contracts*
HKFRS 9	*Financial Instruments*
HKFRS 15	*Revenue from Contracts with Customers*
Amendments to HKFRS 15	*Clarifications to HKFRS 15 Revenue from Contracts with Customers*
Amendments to HKAS 40	*Transfers of Investment Property*
HK(IFRIC)-Int 22	*Foreign Currency Transactions and Advance Consideration*
Annual Improvements 2014-2016 Cycle	Amendments to HKFRS 1 and HKAS 28

Except for HKFRS 15 and HKFRS 9, the adoption of the above revised standards has had no significant financial effect on these financial statements.

HKFRS 15 *Revenue from Contracts with Customers*

HKFRS 15 and its amendments replace HKAS 11 Construction Contracts, HKAS 18 Revenue and related interpretations and it applies, with limited exceptions, to all revenue arising from contracts with customers. HKFRS 15 establishes a new five-step model to account for revenue arising from contracts with customers. Under HKFRS 15, revenue is recognised at an amount that reflects the consideration to which an entity expects to be entitled in exchange for transferring goods or services to a customer. The principles in HKFRS 15 provide a more structured approach for measuring and recognising revenue. The standard also introduces extensive qualitative and quantitative disclosure requirements, including disaggregation of total revenue, information about performance obligations, changes in contract asset and liability account balances between periods and key judgements and estimates. The disclosures are included in notes 3 and 5 to the financial statements. As a result of the application of HKFRS 15, the Group has changed the accounting policy with respect to revenue recognition in note 2.4 to the financial statements.

The Group has adopted HKFRS 15 using the modified retrospective method of adoption. Under this method, the standard can be applied either to all contracts at the date of initial application or only to contracts that are not completed at this date. The Group has elected to apply the standard to contracts that are not completed as at 1 January 2018.

The cumulative effect of the initial application of HKFRS 15 was recognised as an adjustment to the opening balance of retained profits as at 1 January 2018. Therefore, the comparative information was not restated and continues to be reported under HKAS 11, HKAS 18 and related interpretations.

2.2 CHANGES IN ACCOUNTING POLICIES AND DISCLOSURES (continued)

HKFRS 15 *Revenue from Contracts with Customers* (continued)

Set out below are the amounts by which each financial statement line item was affected as at 1 January 2018 as a result of the adoption of HKFRS 15:

	Notes	Increase/ (decrease) US$'000
Liabilities		
Contract liabilities	(ii)	(1,930)
Tax payable	(iii)	830
Total liabilities		(1,100)
Equity		
Retained earnings	(iii)	933
Non-controlling interests	(iii)	167
		1,100

Set out below are the amounts by which each financial statement line item was affected as at 31 December 2018 and for the year ended 31 December 2018 as a result of the adoption of HKFRS 15. The adoption of HKFRS 15 has had no impact on other comprehensive income or on the Group's operating, investing and financing cash flows. The first column shows the amounts recorded under HKFRS 15 and the second column shows what the amounts would have been had HKFRS 15 not been adopted:

Consolidated statement of profit or loss for the year ended 31 December 2018:

		Amounts prepared under		
	Notes	HKFRS 15 US$'000	Previous HKFRS US$'000	Increase/ (decrease) US$'000
Revenue	(i)	**231,017**	**222,142**	**8,875**
Gross profit		**158,539**	**149,664**	**8,875**
Profit before tax		**22,700**	**13,825**	**8,875**
Income tax (expense)/credit	(iii)	**(1,941)**	**261**	**(2,202)**
Profit for the year		**20,759**	**14,086**	**6,673**
Attributable to:				
Owners of the parent		**21,216**	**15,555**	**5,661**
Non-controlling interests	(iii)	**(457)**	**(1,469)**	**1,012**
		20,759	**14,086**	**6,673**
Earnings per share attributable to ordinary equity holders of the parent				
– Basic		**US1.18 cents**	**US0.87 cents**	**US0.31 cents**
– Diluted		**US1.15 cents**	**US0.85 cents**	**US0.30 cents**

2.2 CHANGES IN ACCOUNTING POLICIES AND DISCLOSURES (continued)

HKFRS 15 *Revenue from Contracts with Customers* (continued)

Consolidated statement of financial position as at 31 December 2018:

	Notes	Amounts prepared under HKFRS 15 US$'000	Previous HKFRS US$'000	Increase/ (decrease) US$'000
Contract liabilities	(i), (ii)	303,145	312,020	(8,875)
Tax payable	(iii)	16,766	14,564	2,202
Total liabilities		423,677	430,350	(6,673)
Net assets		493,299	486,626	6,673
Retained profits	(i), (iii)	112,554	106,892	5,662
Non-controlling interests	(iii)	14,635	13,624	1,011
Total equity		493,299	486,626	6,673

The nature of the adjustments as at 1 January 2018 and the reasons for the significant changes in the statement of financial position as at 31 December 2018 and the statement of profit or loss for the year ended 31 December 2018 are described below:

(i) Variable consideration on service and products of cell therapy

Legend Biotech USA Inc., Legend Biotech Ireland Limited, (together "Legend") are subsidiaries of the Company. On 21 December 2017, Legend and Janssen Biotech, Inc. ("Janssen"), entered into a collaboration and license agreement ("the agreement") in the development, manufacture and commercialization of a chimeric antigen receptor (CAR) T-cell drug. After signing this agreement, Janssen needs to make a non-refundable upfront payment to Legend and agrees to make further subsequent payments based on various milestones including various clinical trial achievements and regulatory approvals.

Before adopting HKFRS 15, the Group recognised revenue from the license and service measured at fair value of the consideration received or receivable. If revenue cannot be reliably measured, revenue recognition is deferred until the uncertainty is resolved. Upon adoption of HKFRS 15, a transaction price is considered variable if a customer is provided with milestone payments. The Group estimates the amount of consideration to which it will be entitled in the sales of license and service and the estimated amount of variable consideration will be included in the transaction price only to the extent that it is highly probable that a significant reversal in the amount of cumulative revenue recognised will not occur when the uncertainty associated with the variable consideration is subsequently resolved. The Group used the most likely amount method to estimate the milestone payment as this method better predicts the amount of variable consideration to which the Group will be entitled. Accordingly, an adjustment to increase revenue for milestone payment by US$0.9 million was recorded as an adjustment to the opening balance of retained earnings at 1 January 2018, with a corresponding increase in contract assets (decrease in contract liability).

2.2 CHANGES IN ACCOUNTING POLICIES AND DISCLOSURES (continued)

HKFRS 15 *Revenue from Contracts with Customers* (continued)

(i) Variable consideration on service and products of cell therapy (continued)

As at 31 December 2018, the adoption of HKFRS 15 resulted in a decrease in contract liabilities by US$8,875,000 and there was a decrease in retained profits of US$5,662,000. Revenue was increased by US$8,875,000 for the year ended 31 December 2018.

(ii) Consideration received from customers in advance

Before the adoption of HKFRS 15, the Group recognised consideration received from customers in advance as other payables. Under HKFRS 15, the amount is classified as contract liabilities.

Therefore, upon adoption of HKFRS 15, the Group reclassified US$207,222,000 from other payables to contract liabilities as at 1 January 2018 in relation to the consideration received from customers in advance as at 1 January 2018.

As at 31 December 2018, under HKFRS 15, US$303,145,000 was reclassified from other payables to contract liabilities in relation to the consideration received from customers in advance for the provision of collaboration services.

(iii) Other adjustments

In addition to the adjustments described above, other items of the primary financial statements such as tax and non-controlling interests were adjusted as necessary. Retained profits were adjusted accordingly.

HKFRS 9 *Financial Instruments*

HKFRS 9 *Financial Instruments* replaces HKAS 39 *Financial Instruments*: Recognition and Measurement for annual periods beginning on or after 1 January 2018, bringing together all three aspects of the accounting for financial instruments: classification and measurement, impairment and hedge accounting.

The Group has recognised the transition adjustments against the applicable opening balances in equity at 1 January 2018. Therefore, the comparative information was not restated and continues to be reported under HKAS 39.

2.2 CHANGES IN ACCOUNTING POLICIES AND DISCLOSURES (continued)

HKFRS 9 *Financial Instruments* (continued)

Classification and measurement

The following information sets out the impacts of adopting HKFRS 9 on the statement of financial position, including the effect of replacing HKAS 39's incurred credit loss calculations with HKFRS 9's expected credit losses ("ECLs").

A reconciliation between the carrying amounts under HKAS 39 and the balances reported under HKFRS 9 as at 1 January 2018 is as follows:

		HKAS 39 measurement		Re-classification	ECL	Other	HKFRS 9 measurement	
	Notes	Category	Amount				Amount	Category
			US$'000	US$'000	US$'000	US$'000	US$'000	
Financial assets								
Equity investments designated at fair value through other comprehensive income		N/A	–	1,136	–	–	1,136	FVOCI[1] (equity)
From: Available-for-sale investments	(i)			1,136	–	–		
Available-for-sale investments		AFS[2]	4,224	(4,224)	–	–	–	N/A
To: Equity investments designated at fair value through other comprehensive income	(i)			(1,136)	–	–		
To: Financial assets at fair value through profit or loss	(ii)			(3,088)	–	–		
Trade receivables	(iii)	L&R[3]	256,962	–	(1,611)	–	255,351	AC[4]
Financial assets included in prepayments, other receivables and other assets		L&R	8,354	–	(25)	–	8,329	AC
Financial assets at fair value through profit or loss		FVPL[5]	–	3,088	–	–	3,088	FVPL (mandatory)
From: Available-for-sale investments	(ii)			3,088	–	–		
Pledged deposits		L&R	392	–	–	–	392	AC
Cash and cash equivalents		L&R	123,857	–	–	–	123,857	AC
			393,789	–	(1,636)	–	392,153	
Other assets								
Deferred tax assets			7,525	–	–	–	7,525	
Total assets			505,900	–	(1,636)	–	504,264	

2.2 CHANGES IN ACCOUNTING POLICIES AND DISCLOSURES (continued)

HKFRS 9 *Financial Instruments* (continued)

Classification and measurement (continued)

	HKAS 39 measurement		Re-classification	ECL	Other	HKFRS 9 measurement	
	Category	Amount				Amount	Category
		US$'000	US$'000	US$'000	US$'000	US$'000	
Financial liabilities							
Trade and bills payables	AC	8,154	–	–	–	8,154	AC
Financial liabilities included in other payables and accruals	AC	22,086	–	–	–	22,086	AC
		30,240	–	–	–	30,240	
Other liabilities							
Deferred tax liabilities		342	–	–	–	342	
Total liabilities		274,845	–	–	–	274,845	

[1] FVOCI: Financial assets at fair value through other comprehensive income
[2] AFS: Available-for-sale investments
[3] L&R: Loans and receivables
[4] AC: Financial assets or financial liabilities at amortised cost
[5] FVPL: Financial assets at fair value through profit or loss

Notes:

(i) The Group has elected the option to irrevocably designate certain of its previous available-for-sale equity investments as equity investments at fair value through other comprehensive income.

(ii) The Group has classified its wealth management products previously classified as available-for-sale investments as financial assets measured at fair value through profit or loss as these non-equity investments did not pass the contractual cash flow characteristics test in HKFRS 9.

(iii) The gross carrying amounts of the trade receivables under the column "HKAS 39 measurement – Amount" represent the amounts after adjustments for the adoption of HKFRS 15 but before the measurement of ECLs.

2.2 CHANGES IN ACCOUNTING POLICIES AND DISCLOSURES (continued)

HKFRS 9 *Financial Instruments* (continued)

Impairment

The adoption of the impairment accounting requirements HKFRS 9 has had no impact on the Group's financial statements.

Hedge accounting

The adoption of the hedge accounting requirements of HKFRS 9 has had no impact on the Group's financial statements.

Impact on reserves and retained profits

The adoption of HKFRS 9 has had no impact on the reserves and retained profits of Group's financial statements as of 31 December 2017 and 1 January 2018.

2.3 ISSUED BUT NOT YET EFFECTIVE HONG KONG FINANCIAL REPORTING STANDARDS

The Group has not applied the following new and revised HKFRSs, that have been issued but are not yet effective, in these financial statements.

Amendments to HKFRS 3	*Definition of a Business*[2]
Amendments to HKFRS 9	*Prepayment Features with Negative Compensation*[1]
Amendments to HKFRS 10 and HKAS 28 (2011)	*Sale or Contribution of Assets between an Investor and its Associate or Joint Venture*[4]
HKFRS 16	*Leases*[1]
HKFRS 17	*Insurance Contracts*[3]
Amendments to HKAS 1 and HKAS 8	*Definition of Material*[2]
Amendments to HKAS 19	*Plan Amendment, Curtailment or Settlement*[1]
Amendments to HKAS 28	*Long-term Interests in Associates and Joint Ventures*[1]
HK(IFRIC)-Int 23	*Uncertainty over Income Tax Treatments*[1]
Annual Improvements 2015-2017 Cycle	Amendments to HKFRS 3, HKFRS 11, HKAS 12 and HKAS 23[1]

1 Effective for annual periods beginning on or after 1 January 2019
2 Effective for annual periods beginning on or after 1 January 2020
3 Effective for annual periods beginning on or after 1 January 2021
4 No mandatory effective date yet determined but available for adoption

2.3 ISSUED BUT NOT YET EFFECTIVE HONG KONG FINANCIAL REPORTING STANDARDS (continued)

Further information about those HKFRSs that are expected to be applicable to the Group is described below.

HKFRS 16 replaces HKAS 17 *Leases*, HK(IFRIC)-4 *Determining whether an Arrangement contains a Lease*, HK(SIC)-15 *Operating Leases – Incentives* and HK(SIC)-27 *Evaluating the Substance of Transactions Involving the Legal Form of a Lease*. The standard sets out the principles for the recognition, measurement, presentation and disclosure of leases and requires lessees to recognise assets and liabilities for most leases. The standard includes two elective recognition exemptions for lessees – leases of low-value assets and short-term leases. At the commencement date of a lease, a lessee will recognise a liability to make lease payments (i.e., the lease liability) and an asset representing the right to use the underlying asset during the lease term (i.e., the right-of-use asset). The right-of-use asset is subsequently measured at cost less accumulated depreciation and any impairment losses unless the right-of-use asset meets the definition of investment property in HKAS 40, or relates to a class of property, plant and equipment to which the revaluation model is applied. The lease liability is subsequently increased to reflect the interest on the lease liability and reduced for the lease payments. Lessees will be required to separately recognise the interest expense on the lease liability and the depreciation expense on the right-of-use asset. Lessees will also be required to remeasure the lease liability upon the occurrence of certain events, such as change in the lease term and change in future lease payments resulting from a change in an index or rate used to determine those payments. Lessees will generally recognise the amount of the remeasurement of the lease liability as an adjustment to the right-of-use asset. Lessor accounting under HKFRS 16 is substantially unchanged from the accounting under HKAS 17. Lessors will continue to classify all leases using the same classification principle as in HKAS 17 and distinguish between operating leases and finance leases. HKFRS 16 requires lessees and lessors to make more extensive disclosures than under HKAS 17. Lessees can choose to apply the standard using either a full retrospective or a modified retrospective approach. The Group will adopt HKFRS 16 from 1 January 2019. The Group plans to adopt the transitional provisions in HKFRS 16 to recognise the cumulative effect of initial adoption as an adjustment to the opening balance of retained earnings at 1 January 2019 and will not restate the comparatives. In addition, the Group plans to apply the new requirements to contracts that were previously identified as leases applying HKAS 17 and measure the lease liability at the present value of the remaining lease payments, discounted using the Group's incremental borrowing rate at the date of initial application. The right-of-use asset will be measured at the amount of the lease liability, adjusted by the amount of any prepaid or accrued lease payments relating to the lease recognised in the statement of financial position immediately before the date of initial application. The Group plans to use the exemptions allowed by the standard on lease contracts whose lease terms end within 12 months as of the date of initial application. During 2018, the Group has performed a detailed assessment on the impact of adoption of HKFRS 16. The Group has estimated that right-of-use assets and lease liabilities will be recognised at 1 January 2019.

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Investments in associates

An associate is an entity in which the Group has a long-term interest of generally not less than 20% of the equity voting rights and over which it is in a position to exercise significant influence. Significant influence is the power to participate in the financial and operating policy decisions of the investee, but is not control or joint control over those policies.

The Group's investments in associates are stated in the consolidated statement of financial position at the Group's share of net assets under the equity method of accounting, less any impairment losses.

Adjustments are made to bring into line any dissimilar accounting policies that may exist.

The Group's share of the post-acquisition results and other comprehensive income of associates and joint ventures is included in the consolidated statement of profit or loss and consolidated other comprehensive income, respectively. In addition, when there has been a change recognised directly in the equity of the associate or joint venture, the Group recognises its share of any changes, when applicable, in the consolidated statement of changes in equity. Unrealised gains and losses resulting from transactions between the Group and its associates are eliminated to the extent of the Group's investments in the associates, except where unrealised losses provide evidence of an impairment of the assets transferred. Goodwill arising from the acquisition of associates is included as part of the Group's investments in associates.

When an investment in an associate is classified as held for sale, it is accounted for in accordance with HKFRS 5 *Non-current Assets Held for Sale and Discontinued Operations*.

Business combinations and goodwill

Business combinations are accounted for using the acquisition method. The consideration transferred is measured at the acquisition date fair value which is the sum of the acquisition date fair values of assets transferred by the Group, liabilities assumed by the Group to the former owners of the acquiree and the equity interests issued by the Group in exchange for control of the acquiree. For each business combination, the Group elects whether to measure the non-controlling interests in the acquiree that are present ownership interests and entitle their holders to a proportionate share of net assets in the event of liquidation at fair value or at the proportionate share of the acquiree's identifiable net assets. All other components of non-controlling interests are measured at fair value. Acquisition-related costs are expensed as incurred.

When the Group acquires a business, it assesses the financial assets and liabilities assumed for appropriate classification and designation in accordance with the contractual terms, economic circumstances and pertinent conditions as at the acquisition date. This includes the separation of embedded derivatives in host contracts of the acquiree.

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Business combinations and goodwill (continued)

If the business combination is achieved in stages, the previously held equity interest is remeasured at its acquisition date fair value and any resulting gain or loss is recognised in profit or loss.

Any contingent consideration to be transferred by the acquirer is recognised at fair value at the acquisition date. Contingent consideration classified as an asset or liability is measured at fair value with changes in fair value recognised in profit or loss. Contingent consideration that is classified as equity is not remeasured and subsequent settlement is accounted for within equity.

Goodwill is initially measured at cost, being the excess of the aggregate of the consideration transferred, the amount recognised for non-controlling interests and any fair value of the Group's previously held equity interests in the acquiree over the identifiable net assets acquired and liabilities assumed. If the sum of this consideration and other items is lower than the fair value of the net assets acquired, the difference is, after reassessment, recognised in profit or loss as a gain on bargain purchase.

After initial recognition, goodwill is measured at cost less any accumulated impairment losses. Goodwill is tested for impairment annually or more frequently if events or changes in circumstances indicate that the carrying value may be impaired. The Group performs its annual impairment test of goodwill as at 31 December. For the purpose of impairment testing, goodwill acquired in a business combination is, from the acquisition date, allocated to each of the Group's cash-generating units, or groups of cash-generating units, that are expected to benefit from the synergies of the combination, irrespective of whether other assets or liabilities of the Group are assigned to those units or groups of units.

Impairment is determined by assessing the recoverable amount of the cash-generating unit (group of cash-generating units) to which the goodwill relates. Where the recoverable amount of the cash-generating unit (group of cash-generating units) is less than the carrying amount, an impairment loss is recognised. An impairment loss recognised for goodwill is not reversed in a subsequent period.

Where goodwill has been allocated to a cash-generating unit (or group of cash-generating units) and part of the operation within that unit is disposed of, the goodwill associated with the operation disposed of is included in the carrying amount of the operation when determining the gain or loss on the disposal. Goodwill disposed of in these circumstances is measured based on the relative value of the operation disposed of and the portion of the cash-generating unit retained.

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Fair value measurement

The Group measures its investment properties, derivative financial instruments and equity investments at fair value at the end of each reporting period. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The fair value measurement is based on the presumption that the transaction to sell the asset or transfer the liability takes place either in the principal market for the asset or liability, or in the absence of a principal market, in the most advantageous market for the asset or liability. The principal or the most advantageous market must be accessible by the Group. The fair value of an asset or a liability is measured using the assumptions that market participants would use when pricing the asset or liability, assuming that market participants act in their economic best interest.

A fair value measurement of a non-financial asset takes into account a market participant's ability to generate economic benefits by using the asset in its highest and best use or by selling it to another market participant that would use the asset in its highest and best use.

The Group uses valuation techniques that are appropriate in the circumstances and for which sufficient data are available to measure fair value, maximising the use of relevant observable inputs and minimising the use of unobservable inputs.

All assets and liabilities for which fair value is measured or disclosed in the financial statements are categorised within the fair value hierarchy, described as follows, based on the lowest level input that is significant to the fair value measurement as a whole:

Level 1 – based on quoted prices (unadjusted) in active markets for identical assets or liabilities

Level 2 – based on valuation techniques for which the lowest level input that is significant to the fair value measurement is observable, either directly or indirectly

Level 3 – based on valuation techniques for which the lowest level input that is significant to the fair value measurement is unobservable

For assets and liabilities that are recognised in the financial statements on a recurring basis, the Group determines whether transfers have occurred between levels in the hierarchy by reassessing categorisation (based on the lowest level input that is significant to the fair value measurement as a whole) at the end of each reporting period.

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Impairment of non-financial assets

Where an indication of impairment exists, or when annual impairment testing for an asset is required (other than inventories, construction contract assets, financial assets, investment properties and non-current assets/a disposal group classified as held for sale), the asset's recoverable amount is estimated. An asset's recoverable amount is the higher of the asset's or cash-generating unit's value in use and its fair value less costs of disposal, and is determined for an individual asset, unless the asset does not generate cash inflows that are largely independent of those from other assets or groups of assets, in which case the recoverable amount is determined for the cash-generating unit to which the asset belongs.

An impairment loss is recognised only if the carrying amount of an asset exceeds its recoverable amount. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. An impairment loss is charged to the statement of profit or loss in the period in which it arises in those expense categories consistent with the function of the impaired asset.

An assessment is made at the end of each reporting period as to whether there is an indication that previously recognised impairment losses may no longer exist or may have decreased. If such an indication exists, the recoverable amount is estimated. A previously recognised impairment loss of an asset other than goodwill is reversed only if there has been a change in the estimates used to determine the recoverable amount of that asset, but not to an amount higher than the carrying amount that would have been determined (net of any depreciation/amortisation) had no impairment loss been recognised for the asset in prior years. A reversal of such an impairment loss is credited to the statement of profit or loss in the period in which it arises.

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Related parties

A party is considered to be related to the Group if:

(a) the party is a person or a close member of that person's family and that person

(i) has control or joint control over the Group;

(ii) has significant influence over the Group; or

(iii) is a member of the key management personnel of the Group or of a parent of the Group;

or

(b) the party is an entity where any of the following conditions applies:

(i) the entity and the Group are members of the same group;

(ii) one entity is an associate or joint venture of the other entity (or of a parent, subsidiary or fellow subsidiary of the other entity);

(iii) the entity and the Group are joint ventures of the same third party;

(iv) one entity is a joint venture of a third entity and the other entity is an associate of the third entity;

(v) the entity is a post-employment benefit plan for the benefit of employees of either the Group or an entity related to the Group;

(vi) the entity is controlled or jointly controlled by a person identified in (a);

(vii) a person identified in (a)(i) has significant influence over the entity or is a member of the key management personnel of the entity (or of a parent of the entity); and

(viii) the entity, or any member of a group of which it is a part, provides key management personnel services to the Group or to the parent of the Group.

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Property, plant and equipment and depreciation

Property, plant and equipment, other than construction in progress, are stated at cost (or valuation) less accumulated depreciation and any impairment losses. The cost of an item of property, plant and equipment comprises its purchase price and any directly attributable costs of bringing the asset to its working condition and location for its intended use.

Expenditure incurred after items of property, plant and equipment have been put into operation, such as repairs and maintenance, is normally charged to the statement of profit or loss in the period in which it is incurred. In situations where the recognition criteria are satisfied, the expenditure for a major inspection is capitalised in the carrying amount of the asset as a replacement. Where significant parts of property, plant and equipment are required to be replaced at intervals, the Group recognises such parts as individual assets with specific useful lives and depreciates them accordingly.

Depreciation is calculated on the straight-line basis to write off the cost of each item of property, plant and equipment over its estimated useful life. The principal annual rates used for this purpose are as follows:

Freehold land	Not depreciated
Buildings	2% to 5%
Machinery and equipment	20% to 33$^{1}/_{3}$%
Motor vehicles	10%
Computer and office equipment	20% to 33$^{1}/_{3}$%

Where parts of an item of property, plant and equipment have different useful lives, the cost of that item is allocated on a reasonable basis among the parts and each part is depreciated separately. Useful lives and the depreciation method are reviewed, and adjusted if appropriate, at least at each financial year end.

An item of property, plant and equipment including any significant part initially recognised is derecognised upon disposal or when no future economic benefits are expected from its use or disposal. Any gain or loss on disposal or retirement recognised in the statement of profit or loss in the year the asset is derecognised is the difference between the net sales proceeds and the carrying amount of the relevant asset.

Construction in progress represents equipment under installation, which is stated at cost less any impairment losses, and is not depreciated. Cost comprises the direct costs of construction and capitalized borrowing costs on related borrowed funds during the period of construction. Construction in progress is reclassified to the appropriate category of property, plant and equipment when completed and ready for use.

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Intangible assets (other than goodwill)

Intangible assets acquired separately are measured on initial recognition at cost. The cost of intangible assets acquired in a business combination is the fair value at the date of acquisition. The useful lives of intangible assets are assessed to be either finite or indefinite. Intangible assets with finite lives are subsequently amortised over the useful economic life and assessed for impairment whenever there is an indication that the intangible asset may be impaired. The amortisation period and the amortisation method for an intangible asset with a finite useful life are reviewed at least at each financial year end.

Intangible assets are amortised on the straight-line basis over the following useful economic lives:

Software	2 to 10 years
Patents and licenses	5 to 10 years
Customer relationship	10 years

Research and development costs

All research costs are charged to the statement of profit or loss as incurred.

Expenditure incurred on projects to develop new products is capitalised and deferred only when the Group can demonstrate the technical feasibility of completing the intangible asset so that it will be available for use or sale, its intention to complete and its ability to use or sell the asset, how the asset will generate future economic benefits, the availability of resources to complete the project and the ability to measure reliably the expenditure during the development. Product development expenditure which does not meet these criteria is expensed when incurred.

Leases

Leases that transfer substantially all the rewards and risks of ownership of assets to the Group, other than legal title, are accounted for as finance leases. At the inception of a finance lease, the cost of the leased asset is capitalised at the present value of the minimum lease payments and recorded together with the obligation, excluding the interest element, to reflect the purchase and financing. Assets held under capitalised finance leases are included in property, plant and equipment, and depreciated over the shorter of the lease terms and the estimated useful lives of the assets. The finance costs of such leases are charged to the statement of profit or loss so as to provide a constant periodic rate of charge over the lease terms.

Assets acquired through hire purchase contracts of a financing nature are accounted for as finance leases, but are depreciated over their estimated useful lives.

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Leases (continued)

Leases where substantially all the rewards and risks of ownership of assets remain with the lessor are accounted for as operating leases. Where the Group is the lessee, rentals payable under operating leases net of any incentives received from the lessor are charged to the statement of profit or loss on the straight-line basis over the lease terms.

Prepaid land lease payments under operating leases are initially stated at cost and subsequently recognised on the straight-line basis over the lease terms.

Investments and other financial assets (policies under HKFRS 9 applicable from 1 January 2018)

Initial recognition and measurement

Financial assets are classified, at initial recognition, as subsequently measured at amortised cost, fair value through other comprehensive income, and fair value through profit or loss.

The classification of financial assets at initial recognition depends on the financial asset's contractual cash flow characteristics and the Group's business model for managing them. With the exception of trade receivables that do not contain a significant financing component or for which the Group has applied the practical expedient of not adjusting the effect of a significant financing component, the Group initially measures a financial asset at its fair value, plus in the case of a financial asset not at fair value through profit or loss, transaction costs. Trade receivables that do not contain a significant financing component or for which the Group has applied the practical expedient are measured at the transaction price determined under HKFRS 15 in accordance with the policies set out for "Revenue recognition (applicable from 1 January 2018)" below.

In order for a financial asset to be classified and measured at amortised cost or fair value through other comprehensive income, it needs to give rise to cash flows that are solely payments of principal and interest ("SPPI") on the principal amount outstanding.

The Group's business model for managing financial assets refers to how it manages its financial assets in order to generate cash flows. The business model determines whether cash flows will result from collecting contractual cash flows, selling the financial assets, or both.

All regular way purchases and sales of financial assets are recognised on the trade date, that is, the date that the Group commits to purchase or sell the asset. Regular way purchases or sales are purchases or sales of financial assets that require delivery of assets within the period generally established by regulation or convention in the marketplace.

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Investments and other financial assets (policies under HKFRS 9 applicable from 1 January 2018) (continued)

Subsequent measurement

The subsequent measurement of financial assets depends on their classification as follows:

Financial assets at amortised cost (debt instruments)

The Group measures financial assets at amortised cost if both of the following conditions are met:

- The financial asset is held within a business model with the objective to hold financial assets in order to collect contractual cash flows.

- The contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Financial assets at amortised cost are subsequently measured using the effective interest method and are subject to impairment. Gains and losses are recognised in the statement of profit or loss when the asset is derecognised, modified or impaired.

Financial assets at fair value through other comprehensive income (debt instruments)

The Group measures debt investments at fair value through other comprehensive income if both of the following conditions are met:

- The financial asset is held within a business model with the objective of both holding to collect contractual cash flows and selling.

- The contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

For debt investments at fair value through other comprehensive income, interest income, foreign exchange revaluation and impairment losses or reversals are recognised in the statement of profit or loss and computed in the same manner as for financial assets measured at amortised cost. The remaining fair value changes are recognised in other comprehensive income. Upon derecognition, the cumulative fair value change recognised in other comprehensive income is recycled to the statement of profit or loss.

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Investments and other financial assets (policies under HKFRS 9 applicable from 1 January 2018) (continued)

Subsequent measurement (continued)

Financial assets designated at fair value through other comprehensive income (equity investments)

Upon initial recognition, the Group can elect to classify irrevocably its equity investments as equity investments designated at fair value through other comprehensive income when they meet the definition of equity under HKAS 32 *Financial Instruments: Presentation* and are not held for trading. The classification is determined on an instrument-by-instrument basis.

Gains and losses on these financial assets are never recycled to the statement of profit or loss. Dividends are recognised as other income in the statement of profit or loss when the right of payment has been established, it is probable that the economic benefits associated with the dividend will flow to the Group and the amount of the dividend can be measured reliably, except when the Group benefits from such proceeds as a recovery of part of the cost of the financial asset, in which case, such gains are recorded in other comprehensive income. Equity investments designated at fair value through other comprehensive income are not subject to impairment assessment.

Financial assets at fair value through profit or loss

Financial assets at fair value through profit or loss include financial assets held for trading, financial assets designated upon initial recognition at fair value through profit or loss, or financial assets mandatorily required to be measured at fair value. Financial assets are classified as held for trading if they are acquired for the purpose of selling or repurchasing in the near term. Derivatives, including separated embedded derivatives, are also classified as held for trading unless they are designated as effective hedging instruments. Financial assets with cash flows that are not solely payments of principal and interest are classified and measured at fair value through profit or loss, irrespective of the business model. Notwithstanding the criteria for debt instruments to be classified at amortised cost or at fair value through other comprehensive income, as described above, debt instruments may be designated at fair value through profit or loss on initial recognition if doing so eliminates, or significantly reduces, an accounting mismatch.

Financial assets at fair value through profit or loss are carried in the statement of financial position at fair value with net changes in fair value recognised in the statement of profit or loss.

This category includes derivative instruments and equity investments which the Group had not irrevocably elected to classify at fair value through other comprehensive income. Dividends on equity investments classified as financial assets at fair value profit or loss are also recognised as other income in the statement of profit or loss when the right of payment has been established, it is probable that the economic benefits associated with the dividend will flow to the Group and the amount of the dividend can be measured reliably.

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Investments and other financial assets (policies under HKFRS 9 applicable from 1 January 2018) (continued)

Subsequent measurement (continued)

Financial assets at fair value through profit or loss (continued)

A derivative embedded in a hybrid contract, with a financial liability or non-financial host, is separated from the host and accounted for as a separate derivative if the economic characteristics and risks are not closely related to the host; a separate instrument with the same terms as the embedded derivative would meet the definition of a derivative; and the hybrid contract is not measured at fair value through profit or loss. Embedded derivatives are measured at fair value with changes in fair value recognised in the statement of profit or loss. Reassessment only occurs if there is either a change in the terms of the contract that significantly modifies the cash flows that would otherwise be required or a reclassification of a financial asset out of the fair value through profit or loss category.

A derivative embedded within a hybrid contract containing a financial asset host is not accounted for separately. The financial asset host together with the embedded derivative is required to be classified in its entirety as a financial asset at fair value through profit or loss.

Investments and other financial assets (policies under HKAS 39 applicable before 1 January 2018)

Initial recognition and measurement

Financial assets are classified, at initial recognition, as financial assets at fair value through profit or loss, loans and receivables and available-for-sale financial investments, or as derivatives designated as hedging instruments in an effective hedge, as appropriate. When financial assets are recognised initially, they are measured at fair value plus transaction costs that are attributable to the acquisition of the financial assets, except in the case of financial assets recorded at fair value through profit or loss.

All regular way purchases and sales of financial assets are recognised on the trade date, that is, the date that the Group commits to purchase or sell the asset. Regular way purchases or sales are purchases or sales of financial assets that require delivery of assets within the period generally established by regulation or convention in the marketplace.

Subsequent measurement

The subsequent measurement of financial assets depends on their classification as follows:

Financial assets at fair value through profit or loss

Financial assets at fair value through profit or loss include financial assets held for trading and financial assets designated upon initial recognition as at fair value through profit or loss. Financial assets are classified as held for trading if they are acquired for the purpose of sale in the near term. Derivatives, including separated embedded derivatives, are also classified as held for trading unless they are designated as effective hedging instruments as defined by HKAS 39.

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Investments and other financial assets (policies under HKAS 39 applicable before 1 January 2018) (continued)

Subsequent measurement (continued)

Financial assets at fair value through profit or loss (continued)

Financial assets at fair value through profit or loss are carried in the statement of financial position at fair value with positive net changes in fair value presented as other income and gains and negative net changes in fair value presented as finance costs in the statement of profit or loss. These net fair value changes do not include any dividends or interest earned on these financial assets, which are recognised in accordance with the policies set out for "Revenue recognition (applicable before 1 January 2018)" below.

Financial assets designated upon initial recognition as at fair value through profit or loss are designated at the date of initial recognition and only if the criteria in HKAS 39 are satisfied.

Derivatives embedded in host contracts are accounted for as separate derivatives and recorded at fair value if their economic characteristics and risks are not closely related to those of the host contracts and the host contracts are not held for trading or designated as at fair value through profit or loss. These embedded derivatives are measured at fair value with changes in fair value recognised in the statement of profit or loss. Reassessment only occurs if there is either a change in the terms of the contract that significantly modifies the cash flows that would otherwise be required or a reclassification of a financial asset out of the fair value through profit or loss category.

Loans and receivables

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. After initial measurement, such assets are subsequently measured at amortised cost using the effective interest rate method less any allowance for impairment. Amortised cost is calculated by taking into account any discount or premium on acquisition and includes fees or costs that are an integral part of the effective interest rate. The effective interest rate amortisation is included in other income and gains in the statement of profit or loss. The loss arising from impairment is recognised in the statement of profit or loss in finance costs for loans and in other expenses for receivables.

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Investments and other financial assets (policies under HKAS 39 applicable before 1 January 2018)

Available-for-sale investments

Available-for-sale financial investments are non-derivative financial assets in listed and unlisted equity investments and debt securities. Equity investments classified as available for sale are those which are neither classified as held for trading nor designated as at fair value through profit or loss. Debt securities in this category are those which are intended to be held for an indefinite period of time and which may be sold in response to needs for liquidity or in response to changes in market conditions.

After initial recognition, available-for-sale financial investments are subsequently measured at fair value, with unrealised gains or losses recognised as other comprehensive income in the available-for-sale investment revaluation reserve until the investment is derecognised, at which time the cumulative gain or loss is recognised in the statement of profit or loss in other income, or until the investment is determined to be impaired, when the cumulative gain or loss is reclassified from the available-for-sale investment revaluation reserve to the statement of profit or loss in other gains or losses. Interest and dividends earned whilst holding the available-for-sale financial investments are reported as interest income and dividend income, respectively and are recognised in the statement of profit or loss as other income in accordance with the policies set out for "Revenue recognition (applicable before 1 January 2018)" below.

When the fair value of unlisted equity investments cannot be reliably measured because (a) the variability in the range of reasonable fair value estimates is significant for the investment, or (b) the probabilities of the various estimates within the range cannot be reasonably assessed and used in estimating fair value, such investments are stated at cost less any impairment losses.

The Group evaluates whether the ability and intention to sell its available-for-sale financial assets in the near term are still appropriate. When, in rare circumstances, the Group is unable to trade these financial assets due to inactive markets, the Group may elect to reclassify these financial assets, if management has the ability and intention to hold the assets for the foreseeable future or until maturity.

For a financial asset reclassified from the available-for-sale category, the fair value carrying amount at the date of reclassification becomes its new amortised cost and any previous gain or loss on that asset that has been recognised in equity is amortised to profit or loss over the remaining life of the investment using the effective interest rate. Any difference between the new amortised cost and the maturity amount is also amortised over the remaining life of the asset using the effective interest rate. If the asset is subsequently determined to be impaired, then the amount recorded in equity is reclassified to the statement of profit or loss.

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Derecognition of financial assets (policies under HKFRS 9 applicable from 1 January 2018 and policies under HKAS 39 applicable before 1 January 2018)

A financial asset (or, where applicable, a part of a financial asset or part of a group of similar financial assets) is primarily derecognised (i.e., removed from the Group's consolidated statement of financial position) when:

- the rights to receive cash flows from the asset have expired; or

- the Group has transferred its rights to receive cash flows from the asset or has assumed an obligation to pay the received cash flows in full without material delay to a third party under a "pass-through" arrangement; and either (a) the Group has transferred substantially all the risks and rewards of the asset, or (b) the Group has neither transferred nor retained substantially all the risks and rewards of the asset, but has transferred control of the asset.

When the Group has transferred its rights to receive cash flows from an asset or has entered into a pass-through arrangement, it evaluates if, and to what extent, it has retained the risk and rewards of ownership of the asset. When it has neither transferred nor retained substantially all the risks and rewards of the asset nor transferred control of the asset, the Group continues to recognise the transferred asset to the extent of the Group's continuing involvement. In that case, the Group also recognises an associated liability. The transferred asset and the associated liability are measured on a basis that reflects the rights and obligations that the Group has retained.

Continuing involvement that takes the form of a guarantee over the transferred asset is measured at the lower of the original carrying amount of the asset and the maximum amount of consideration that the Group could be required to repay.

Impairment of financial assets (policies under HKFRS 9 applicable from 1 January 2018)

The Group recognises an allowance for ECLs for all debt instruments not held at fair value through profit or loss. ECLs are based on the difference between the contractual cash flows due in accordance with the contract and all the cash flows that the Group expects to receive, discounted at an approximation of the original effective interest rate. The expected cash flows will include cash flows from the sale of collateral held or other credit enhancements that are integral to the contractual terms.

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Impairment of financial assets (policies under HKFRS 9 applicable from 1 January 2018) (continued)

General approach

ECLs are recognised in two stages. For credit exposures for which there has not been a significant increase in credit risk since initial recognition, ECLs are provided for credit losses that result from default events that are possible within the next 12 months (a 12-month ECL). For those credit exposures for which there has been a significant increase in credit risk since initial recognition, a loss allowance is required for credit losses expected over the remaining life of the exposure, irrespective of the timing of the default (a lifetime ECL).

At each reporting date, the Group assesses whether the credit risk on a financial instrument has increased significantly since initial recognition. When making the assessment, the Group compares the risk of a default occurring on the financial instrument as at the reporting date with the risk of a default occurring on the financial instrument as at the date of initial recognition and considers reasonable and supportable information that is available without undue cost or effort, including historical and forward-looking information.

The Group considers a financial asset in default when contractual payments are 90 days past due. However, in certain cases, the Group may also consider a financial asset to be in default when internal or external information indicates that the Group is unlikely to receive the outstanding contractual amounts in full before taking into account any credit enhancements held by the Group. A financial asset is written off when there is no reasonable expectation of recovering the contractual cash flows.

Debt investments at fair value through other comprehensive income and financial assets at amortised cost are subject to impairment under the general approach and they are classified within the following stages for measurement of ECLs except for trade receivables and contract assets which apply the simplified approach as detailed below.

Stage 1 – Financial instruments for which credit risk has not increased significantly since initial recognition and for which the loss allowance is measured at an amount equal to 12-month ECLs

Stage 2 – Financial instruments for which credit risk has increased significantly since initial recognition but that are not credit-impaired financial assets and for which the loss allowance is measured at an amount equal to lifetime ECLs

Stage 3 – Financial assets that are credit-impaired at the reporting date (but that are not purchased or originated credit-impaired) and for which the loss allowance is measured at an amount equal to lifetime ECLs.

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Impairment of financial assets (policies under HKFRS 9 applicable from 1 January 2018) (continued)

Simplified approach

For trade receivables and contract assets that do not contain a significant financing component or when the Group applies the practical expedient of not adjusting the effect of a significant financing component, the Group applies the simplified approach in calculating ECLs. Under the simplified approach, the Group does not track changes in credit risk, but instead recognises a loss allowance based on lifetime ECLs at each reporting date. The Group has established a provision matrix that is based on its historical credit loss experience, adjusted for forward-looking factors specific to the debtors and the economic environment.

Impairment of financial assets (policies under HKAS 39 applicable before 1 January 2018)

The Group assesses at the end of each reporting period whether there is objective evidence that a financial asset or a group of financial assets is impaired. An impairment exists if one or more events that occurred after the initial recognition of the asset have an impact on the estimated future cash flows of the financial asset or the group of financial assets that can be reliably estimated. Evidence of impairment may include indications that the debtors or a group of debtors is experiencing significant financial difficulty, default or delinquency in interest or principal payments, the probability that they will enter bankruptcy or other financial reorganisation and observable data indicating that there is a measurable decrease in the estimated future cash flows, such as changes in arrears or economic conditions that correlate with defaults.

Financial assets carried at amortised cost

For financial assets carried at amortised cost, the Group first assesses whether impairment exists individually for financial assets that are individually significant, or collectively for financial assets that are not individually significant. If the Group determines that no objective evidence of impairment exists for an individually assessed financial asset, whether significant or not, it includes the asset in a group of financial assets with similar credit risk characteristics and collectively assesses them for impairment. Assets that are individually assessed for impairment and for which an impairment loss is, or continues to be, recognised are not included in a collective assessment of impairment.

The amount of any impairment loss identified is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows (excluding future credit losses that have not yet been incurred). The present value of the estimated future cash flows is discounted at the financial asset's original effective interest rate (i.e., the effective interest rate computed at initial recognition).

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Impairment of financial assets (policies under HKAS 39 applicable before 1 January 2018) (continued)

Financial assets carried at amortised cost (continued)

The carrying amount of the asset is reduced through the use of an allowance account and the loss is recognised in the statement of profit or loss. Interest income continues to be accrued on the reduced carrying amount using the rate of interest used to discount the future cash flows for the purpose of measuring the impairment loss. Loans and receivables together with any associated allowance are written off when there is no realistic prospect of future recovery and all collateral has been realised or has been transferred to the Group.

If, in a subsequent period, the amount of the estimated impairment loss increases or decreases because of an event occurring after the impairment was recognised, the previously recognised impairment loss is increased or reduced by adjusting the allowance account. If a write-off is later recovered, the recovery is credited to administrative expenses in the statement of profit or loss.

Available-for-sale investments

For available-for-sale financial investments, the Group assesses at the end of each reporting period whether there is objective evidence that an investment or a group of investments is impaired.

If an available-for-sale asset is impaired, an amount comprising the difference between its cost (net of any principal payment and amortisation) and its current fair value, less any impairment loss previously recognised in the statement of profit or loss, is removed from other comprehensive income and recognised in the statement of profit or loss.

In the case of equity investments classified as available for sale, objective evidence would include a significant or prolonged decline in the fair value of an investment below its cost. "Significant" is evaluated against the original cost of the investment and "prolonged" against the period in which the fair value has been below its original cost. Where there is evidence of impairment, the cumulative loss – measured as the difference between the acquisition cost and the current fair value, less any impairment loss on that investment previously recognised in the statement of profit or loss – is removed from other comprehensive income and recognised in the statement of profit or loss. Impairment losses on equity investments classified as available for sale are not reversed through the statement of profit or loss. Increases in their fair value after impairment are recognised directly in other comprehensive income.

The determination of what is "significant" or "prolonged" requires judgement. In making this judgement, the Group evaluates, among other factors, the duration or extent to which the fair value of an investment is less than its cost.

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Impairment of financial assets (policies under HKAS 39 applicable before 1 January 2018) (continued)

Available-for-sale investments (continued)

In the case of debt instruments classified as available for sale, impairment is assessed based on the same criteria as financial assets carried at amortised cost. However, the amount recorded for impairment is the cumulative loss measured as the difference between the amortised cost and the current fair value, less any impairment loss on that investment previously recognised in the statement of profit or loss. Future interest income continues to be accrued based on the reduced carrying amount of the asset using the rate of interest used to discount the future cash flows for the purpose of measuring the impairment loss. The interest income is recorded as part of finance income. Impairment losses on debt instruments are reversed through the statement of profit or loss if the subsequent increase in fair value of the instruments can be objectively related to an event occurring after the impairment loss was recognised in the statement of profit or loss.

Financial liabilities (policies under HKFRS 9 applicable from 1 January 2018 and HKAS 39 applicable before 1 January 2018)

Initial recognition and measurement

Financial liabilities are classified, at initial recognition, as loans and borrowings.

All financial liabilities are recognised initially at fair value and, in the case of loans and borrowings, net of directly attributable transaction costs.

The Group's financial liabilities include trade and other payables, amounts due to the ultimate holding company and related parties and interest-bearing bank borrowings.

Subsequent measurement

The subsequent measurement of loans and borrowings is as follows:

Loans and borrowings

After initial recognition, interest-bearing loans and borrowings are subsequently measured at amortised cost, using the effective interest rate method unless the effect of discounting would be immaterial, in which case they are stated at cost. Gains and losses are recognised in the statement of profit or loss when the liabilities are derecognised as well as through the effective interest rate amortisation process.

Amortised cost is calculated by taking into account any discount or premium on acquisition and fees or costs that are an integral part of the effective interest rate. The effective interest rate amortisation is included in finance costs in the statement of profit or loss.

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Derecognition of financial liabilities (policies under HKFRS 9 applicable from 1 January 2018 and HKAS 39 applicable before 1 January 2018)

A financial liability is derecognised when the obligation under the liability is discharged or cancelled, or expires.

When an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as a derecognition of the original liability and a recognition of a new liability, and the difference between the respective carrying amounts is recognised in the statement of profit or loss.

Offsetting of financial instruments (policies under HKFRS 9 applicable from 1 January 2018 and HKAS 39 applicable before 1 January 2018)

Financial assets and financial liabilities are offset and the net amount is reported in the statement of financial position if there is a currently enforceable legal right to offset the recognised amounts and there is an intention to settle on a net basis, or to realise the assets and settle the liabilities simultaneously.

Inventories

Inventories are stated at the lower of cost and net realisable value. Cost is determined on the first-in, first-out basis and, in the case of work in progress and finished goods, comprises direct materials, direct labour and an appropriate proportion of overheads. Net realisable value is based on estimated selling prices less any estimated costs to be incurred to completion and disposal.

Cash and cash equivalents

For the purpose of the consolidated statement of cash flows, cash and cash equivalents comprise cash on hand and demand deposits, and short term highly liquid investments that are readily convertible into known amounts of cash, are subject to an insignificant risk of changes in value, and have a short maturity of generally within three months when acquired, less bank overdrafts which are repayable on demand and form an integral part of the Group's cash management.

For the purpose of the consolidated statement of financial position, cash and cash equivalents comprise cash on hand and at banks, including term deposits, and assets similar in nature to cash, which are not restricted as to use.

Provisions

A provision is recognised when a present obligation (legal or constructive) has arisen as a result of a past event and it is probable that a future outflow of resources will be required to settle the obligation, provided that a reliable estimate can be made of the amount of the obligation.

When the effect of discounting is material, the amount recognised for a provision is the present value at the end of the reporting period of the future expenditures expected to be required to settle the obligation. The increase in the discounted present value amount arising from the passage of time is included in finance costs in the statement of profit or loss.

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Income tax

Income tax comprises current and deferred tax. Income tax relating to items recognised outside profit or loss is recognised outside profit or loss, either in other comprehensive income or directly in equity.

Current tax assets and liabilities are measured at the amount expected to be recovered from or paid to the taxation authorities, based on tax rates (and tax laws) that have been enacted or substantively enacted by the end of the reporting period, taking into consideration interpretations and practices prevailing in the countries in which the Group operates.

Deferred tax is provided, using the liability method, on all temporary differences at the end of the reporting period between the tax bases of assets and liabilities and their carrying amounts for financial reporting purposes.

Deferred tax liabilities are recognised for all taxable temporary differences, except:

- where the deferred tax liability arises from the initial recognition of goodwill or an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss; and

- in respect of taxable temporary differences associated with investments in subsidiaries, when the timing of the reversal of the temporary differences can be controlled and it is probable that the temporary differences will not reverse in the foreseeable future.

Deferred tax assets are recognised for all deductible temporary differences, the carryforward of unused tax credits and any unused tax losses. Deferred tax assets are recognised to the extent that it is probable that taxable profit will be available against which the deductible temporary differences, the carryforward of unused tax credits and unused tax losses can be utilised, except:

- when the deferred tax asset relating to the deductible temporary difference arises from the initial recognition of an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss; and

- in respect of deductible temporary differences associated with investments in subsidiaries, deferred tax assets are only recognised to the extent that it is probable that the temporary differences will reverse in the foreseeable future and taxable profit will be available against which the temporary differences can be utilised.

The carrying amount of deferred tax assets is reviewed at the end of each reporting period and reduced to the extent that it is no longer probable that sufficient taxable profit will be available to allow all or part of the deferred tax asset to be utilised. Unrecognised deferred tax assets are reassessed at the end of each reporting period and are recognised to the extent that it has become probable that sufficient taxable profit will be available to allow all or part of the deferred tax asset to be recovered.

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Income tax (continued)

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply to the period when the asset is realised or the liability is settled, based on tax rates (and tax laws) that have been enacted or substantively enacted at the end of the reporting period.

Deferred tax assets and deferred tax liabilities are offset if and only if the Group has a legally enforceable right to set off current tax assets and current tax liabilities and the deferred tax assets and deferred tax liabilities relate to income taxes levied by the same taxation authority on either the same taxable entity or different taxable entities which intend either to settle current tax liabilities and assets on a net basis, or to realise the assets and settle the liabilities simultaneously, in each future period in which significant amounts of deferred tax liabilities or assets are expected to be settled or recovered.

Government grants

Government grants are recognised at their fair value where there is reasonable assurance that the grant will be received and all attaching conditions will be complied with. When the grant relates to an expense item, it is recognised as income on a systematic basis over the periods that the costs, which it is intended to compensate, are expensed.

Where the grant relates to an asset, the fair value is credited to a deferred income account and is released to the statement of profit or loss over the expected useful life of the relevant asset by equal annual instalments or deducted from the carrying amount of the asset and released to the statement of profit or loss by way of a reduced depreciation charge.

Revenue recognition (applicable from 1 January 2018)

Revenue from contracts with customers

Revenue from contracts with customers is recognised when control of goods or services is transferred to the customers at an amount that reflects the consideration to which the Group expects to be entitled in exchange for those goods or services.

When the consideration in a contract includes a variable amount, the amount of consideration is estimated to which the Group will be entitled in exchange for transferring the goods or services to the customer. The variable consideration is estimated at contract inception and constrained until it is highly probable that a significant revenue reversal in the amount of cumulative revenue recognised will not occur when the associated uncertainty with the variable consideration is subsequently resolved.

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Revenue recognition (applicable from 1 January 2018) (continued)

Revenue from contracts with customers (continued)

When the contract contains a financing component which provides the customer a significant benefit of financing the transfer of goods or services to the customer for more than one year, revenue is measured at the present value of the amount receivable, discounted using the discount rate that would be reflected in a separate financing transaction between the Group and the customer at contract inception. When the contract contains a financing component which provides the Group a significant financial benefit for more than one year, revenue recognised under the contract includes the interest expense accreted on the contract liability under the effective interest method. For a contract where the period between the payment by the customer and the transfer of the promised goods or services is one year or less, the transaction price is not adjusted for the effects of a significant financing component, using the practical expedient in HKFRS 15.

(a) License and collaboration revenue

The Group enters into license and collaboration agreements for research, development, manufacturing and commercialisation services. The terms of these arrangements typically include payments to the Group of one or more of the following: non-refundable upfront fees, milestone payments for development and regulatory application and royalties on net sales of licensed products. Milestone payment is variable consideration which is constrained until it is probable that the revenue is not at a significant risk of reversal in a future period when the uncertainty resolved. The contracts into which the Group enters generally do not include significant financing components.

As part of the accounting for these arrangements, the Group must use significant judgement to determine: (a) the performance obligations; (b) the transaction price; and (c) the timing of revenue recognition, including the appropriate measure of progress.

At contract inception, the Group assesses the goods or services promised within each contract and determines those that are performance obligations, and assesses whether each promised good or service is distinct.

The Group uses judgement to determine whether milestones or other variable consideration, except for royalties, should be included in the transaction price. The transaction price is allocated to each performance obligation on a relative stand-alone selling price basis, for which the Group recognises revenue as or when the performance obligations under the contract are satisfied. If a milestone or other variable consideration relates specifically to the Group's efforts to satisfy a single performance obligation or to a specific outcome from satisfying the performance obligation, the Group generally allocates that milestone amount entirely to that performance obligation once it is probable that a significant revenue reversal would not occur.

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Revenue recognition (applicable from 1 January 2018) (continued)

Revenue from contracts with customers (continued)

(a) License and collaboration revenue (continued)

The Group recognises revenue only when it satisfies a performance obligation by transferring control of the promised goods or services. The transfer of control can occur over time or at a point in time. A performance obligation is satisfied over time if it meets one of the following criteria.

- The counterparty simultaneously receives and consumes the benefits provided by the Group's performance as the Group performs.
- The Group's performance creates or enhances an asset that the counterparty controls as the asset is created or enhanced.
- The Group's performance does not create an asset with an alternative use to the Group and the Group has an enforceable right to payment for performance completed to date.

The portion of the transaction price that is allocated to performance obligations satisfied at a point in time is recognised as revenue when control of the goods or services is transferred to the counterparty. If the performance obligation is satisfied over time, the portion of the transaction price allocated to that performance obligation is recognised as revenue as the performance obligation is satisfied. The Group adopts an appropriate method of measuring progress for purposes of recognising revenue. The Group evaluates the measure of progress at the end of each reporting period and, if necessary, adjusts the measure of performance and related revenue recognition.

Upfront fees

Upfront payment is initially deferred since partially goods or services have yet been provided. The Group determines that the upfront payment constitutes the entirety of the consideration to be included in the transaction price as of the outset of the collaboration agreement and to be allocated to the performance obligations based on the Group's best estimate of their relative stand-alone selling prices. The upfront payment is recognised as revenue when the performance obligation is satisfied over time or at a point in time.

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Revenue recognition (applicable from 1 January 2018) (continued)

Revenue from contracts with customers (continued)

(a) License and collaboration revenue (continued)

Milestone payments

At the inception of each arrangement that includes milestone payments, the Group evaluates whether the milestones are considered probable of being achieved and estimates the amount to be included in the transaction price using the most likely amount method. If it is probable that a significant reversal of cumulative revenue would not occur, the associated milestone value is included in the transaction price. Milestone payments that are not within the control of the Group, such as regulatory approvals, are not considered probable of being achieved until those approvals are received. The Group evaluates factors such as the scientific, clinical, regulatory, commercial, and other risks that must be overcome to achieve the particular milestone in making this assessment. There is considerable judgement involved in determining whether it is probable that a significant reversal of cumulative revenue would not occur. At the end of each subsequent reporting period, the Group re-evaluates the probability of achievement of all milestones subject to constraint and, if necessary, adjusts its estimate of the overall transaction price. The milestone payments were recognised as revenue when the performance obligation was satisfied over time.

Licenses of intellectual property

In assessing whether a license is distinct from the other promises, the Group considers factors such as the research, development, manufacturing and commercialisation capabilities of the collaboration partner and the availability of the associated expertise in the general marketplace. In addition, the Group considers whether the counterparty can benefit from a license for its intended purpose without the receipt of the remaining promise(s) by considering whether the value of the license is dependent on the unsatisfied promise(s), whether there are other vendors that could provide the remaining promise(s), and whether it is separately identifiable from the remaining promise(s). For licenses that are combined with other promises, the Group utilises judgement to assess the nature of the combined performance obligation to determine whether the combined performance obligation is satisfied over time or at a point in time and, if over time, the appropriate method of measuring progress for purposes of recognising revenue.

Royalties

A sales-based royalty promised in exchange for a license of intellectual property is recognised as revenue only when (or as) the later of the following events occurs: (a) the subsequent sale occurs; and (b) the performance obligation to which some or all of the sales-based royalty has been allocated has been satisfied (or partially satisfied).

The Group presents a contract liability or a contract asset in its consolidated statement of financial position when either party to the contract has performed. The Group performs by transferring goods or services to the collaboration partner, and the collaboration partner performs by paying consideration to the Group.

Any unconditional rights to consideration are presented separately as trade receivables.

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Revenue recognition (applicable from 1 January 2018) (continued)

Revenue from contracts with customers (continued)

(b) Rendering of services

Revenue from the rendering of services is recognised at the point in time when completion of services, generally on uploading the reports.

(c) Sale of goods

Revenue from the sale of goods is recognised at the point in time when control of the asset is transferred to the customer, generally on delivery of the goods.

Revenue from other sources

Rental income is recognised on a time proportion basis over the lease terms.

Other income

Interest income is recognised on an accrual basis using the effective interest method by applying the rate that exactly discounts the estimated future cash receipts over the expected life of the financial instrument or a shorter period, when appropriate, to the net carrying amount of the financial asset.

Dividend income is recognised when the shareholders' right to receive payment has been established, it is probable that the economic benefits associated with the dividend will flow to the Group and the amount of the dividend can be measured reliably.

Revenue recognition (applicable before 1 January 2018)

Revenue is recognised when it is probable that the economic benefits will flow to the Group and when the revenue can be measured reliably, on the following bases:

(a) from the rendering of services, when the services have been rendered and it is probable that the economic benefits will flow to the Group and the relevant fees can be measured reliably;

(b) from the sale of goods, when the significant risks and rewards of ownership have been transferred to the buyer, provided that the Group maintains neither managerial involvement to the degree usually associated with ownership, nor effective control over the goods sold;

(c) interest income, on an accrual basis using the effective interest method by applying the rate that exactly discounts the estimated future cash receipts over the expected life of the financial instrument or a shorter period, when appropriate, to the net carrying amount of the financial asset; and

(d) dividend income, when the shareholders' right to receive payment has been established.

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Contract assets (applicable from 1 January 2018)

A contract asset is the right to consideration in exchange for goods or services transferred to the customer. If the Group performs by transferring goods or services to a customer before the customer pays consideration or before payment is due, a contract asset is recognised for the earned consideration that is conditional.

Contract liabilities (applicable from 1 January 2018)

A contract liability is the obligation to transfer goods or services to a customer for which the Group has received a consideration (or an amount of consideration that is due) from the customer. If a customer pays the consideration before the Group transfers goods or services to the customer, a contract liability is recognised when the payment is made or the payment is due (whichever is earlier). Contract liabilities are recognised as revenue when the Group performs under the contract.

Share-based payments

The Company operates a share option scheme for the purpose of providing incentives and rewards to eligible participants who contribute to the success of the Group's operations. Employees (including directors) of the Group receive remuneration in the form of share-based payments, whereby employees render services as consideration for equity instruments ("equity-settled transactions").

The cost of equity-settled transactions with employees is measured by reference to the fair value at the date at which they are granted. The fair value is determined by an external valuer using a binomial model, further details of which are given in note 31 to the financial statements.

The cost of equity-settled transactions is recognised, together with a corresponding increase in equity, over the period in which the performance and/or service conditions are fulfilled in employee benefit expense. The cumulative expense recognised for equity-settled transactions at the end of each reporting period until the vesting date reflects the extent to which the vesting period has expired and the Group's best estimate of the number of equity instruments that will ultimately vest. The charge or credit to the statement of profit or loss for a period represents the movement in the cumulative expense recognised as at the beginning and end of that period.

Service and non-market performance conditions are not taken into account when determining the grant date fair value of awards, but the likelihood of the conditions being met is assessed as part of the Group's best estimate of the number of equity instruments that will ultimately vest. Market performance conditions are reflected within the grant date fair value. Any other conditions attached to an award, but without an associated service requirement, are considered to be non-vesting conditions. Non-vesting conditions are reflected in the fair value of an award and lead to an immediate expensing of an award unless there are also service and/or performance conditions.

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Share-based payments (continued)

For awards that do not ultimately vest because non-market performance and/or service conditions have not been met, no expense is recognised. Where awards include a market or non-vesting condition, the transactions are treated as vesting irrespective of whether the market or non-vesting condition is satisfied, provided that all other performance and/or service conditions are satisfied.

Where the terms of an equity-settled award are modified, as a minimum an expense is recognised as if the terms had not been modified, if the original terms of the award are met. In addition, an expense is recognised for any modification that increases the total fair value of the share-based payments, or is otherwise beneficial to the employee as measured at the date of modification.

Where an equity-settled award is cancelled, it is treated as if it had vested on the date of cancellation, and any expense not yet recognised for the award is recognised immediately. This includes any award where non-vesting conditions within the control of either the Group or the employee are not met. However, if a new award is substituted for the cancelled award, and is designated as a replacement award on the date that it is granted, the cancelled and new awards are treated as if they were a modification of the original award, as described in the previous paragraph.

The dilutive effect of outstanding options is reflected as additional share dilution in the computation of earnings per share.

Other employee benefits

Pension schemes

The Group participates in the national pension schemes as defined by the laws of the countries in which it has operations.

The employees of the Group's subsidiaries which operate in Mainland China are required to participate in a central pension scheme operated by the local municipal government. These subsidiaries are required to contribute 20% of their payroll costs to the central pension scheme. The contributions are charged to the statement of profit or loss as they become payable in accordance with the rules of the central pension scheme.

The non-PRC employees are covered by other defined contribution pension plans sponsored by the respective local governments.

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Borrowing costs

Borrowing costs directly attributable to the acquisition, construction or production of qualifying assets, i.e., assets that necessarily take a substantial period of time to get ready for their intended use or sale, are capitalised as part of the cost of those assets. The capitalisation of such borrowing costs ceases when the assets are substantially ready for their intended use or sale. Investment income earned on the temporary investment of specific borrowings pending their expenditure on qualifying assets is deducted from the borrowing costs capitalised. All other borrowing costs are expensed in the period in which they are incurred. Borrowing costs consist of interest and other costs that an entity incurs in connection with the borrowing of funds.

Dividends

Final dividends are recognised as a liability when they are approved by the shareholders in a general meeting. Proposed final dividends are disclosed in the notes to the financial statements.

Interim dividends are simultaneously proposed and declared, because the Company's memorandum and articles of association grant the directors the authority to declare interim dividends. Consequently, interim dividends are recognised immediately as a liability when they are proposed and declared.

Foreign currencies

These financial statements are presented in United States dollars, which is the Company's functional currency. Each entity in the Group determines its own functional currency and items included in the financial statements of each entity are measured using that functional currency. Foreign currency transactions recorded by the entities in the Group are initially recorded using their respective functional currency rates prevailing at the dates of the transactions. Monetary assets and liabilities denominated in foreign currencies are translated at the functional currency rates of exchange ruling at the end of the reporting period. Differences arising on settlement or translation of monetary items are recognised in the statement of profit or loss.

Differences arising on settlement or translation of monetary items are recognised in the statement of profit or loss with the exception of monetary items that are designated as part of the hedge of the Group's net investment of a foreign operation. These are recognised in other comprehensive income until the net investment is disposed of, at which time the cumulative amount is reclassified to the statement of profit or loss. Tax charges and credits attributable to exchange differences on those monetary items are also recorded in other comprehensive income.

Non-monetary items that are measured in terms of historical cost in a foreign currency are translated using the exchange rates at the dates of the initial transactions. Non-monetary items measured at fair value in a foreign currency are translated using the exchange rates at the date when the fair value was determined. The gain or loss arising on translation of a non-monetary item measured at fair value is treated in line with the recognition of the gain or loss on change in fair value of the item (i.e., translation difference on the item whose fair value gain or loss is recognised in other comprehensive income or profit or loss is also recognised in other comprehensive income or profit or loss, respectively).

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Foreign currencies (continued)

In determining the exchange rate on initial recognition of the related asset, expense or income on the derecognition of a non-monetary asset or non-monetary liability relating to an advance consideration, the date of initial transaction is the date on which the Group initially recognises the non-monetary asset or non-monetary liability arising from the advance consideration. If there are multiple payments or receipts in advance, the Group determines the transaction date for each payment or receipt of the advance consideration.

The functional currencies of certain PRC, Japan and Europe established subsidiaries are currencies other than the United States dollar. As at the end of the reporting period, the assets and liabilities of these entities are translated into United States dollars at the exchange rates prevailing at the end of the reporting period and their statements of profit or loss are translated into United States dollars at the weighted average exchange rates for the year.

The resulting exchange differences are recognised in other comprehensive income and accumulated in the exchange fluctuation reserve. On disposal of a foreign operation, the component of other comprehensive income relating to that particular foreign operation is recognised in the statement of profit or loss.

For the purpose of the consolidated statements of cash flows, the cash flows of the PRC, Japan and Europe established subsidiaries are translated into United States dollars at the exchange rates ruling at the dates of the cash flows. Frequently recurring cash flows of the PRC and Japan established companies which arise throughout the year are translated into United States dollars at the weighted average exchange rates for the year.

3. SIGNIFICANT ACCOUNTING JUDGEMENTS AND ESTIMATES

The preparation of the Group's financial statements requires management to make judgements, estimates and assumptions that affect the reported amounts of revenues, expenses, assets and liabilities, and their accompanying disclosures, and the disclosure of contingent liabilities. Uncertainty about these assumptions and estimates could result in outcomes that could require a material adjustment to the carrying amounts of the assets or liabilities affected in the future.

Judgement

In the process of applying the Group's accounting policies, management has made the following judgement, apart from those involving estimations, which has the most significant effect on the amounts recognised in the financial statements:

3. SIGNIFICANT ACCOUNTING JUDGEMENTS AND ESTIMATES (continued)

Judgement (continued)

Revenue from contracts with customers

The Group applied the following judgements that significantly affect the determination of the performance obligations, variable consideration, allocation of the consideration and timing of revenue from contracts with customers:

(i) Determining the performance of obligations of the contract

The Group analyses agreements with more than one element, or deliverable. The Group identifies the deliverables within the agreement and evaluates which deliverables represent separate units of accounting. Analysing the agreements to identify deliverables requires the use of judgement. A deliverable is considered a separate unit of accounting when deliverable has value to the collaborator on a standalone basis based on the consideration of the relevant facts and circumstances for each agreement. In assessing whether an item has standalone value, the Group considers factors such as the research, manufacturing, and commercialisation capabilities of the collaboration partner and the availability of the associated expertise in the general marketplace. In addition, the Group considers whether the other deliverables can be used for their intended purpose without the receipt of the remaining elements, whether the value of the deliverable is dependent on the undelivered items and whether there are other vendors that can provide the undelivered elements.

(ii) Determining the method to estimate variable consideration, allocation of the consideration and timing of revenue recognition

Consideration is allocated at the inception of the agreement to all identified units of accounting based on their standalone selling price. The standalone selling price for each deliverable is estimated using objective evidence if it is available. If objective evidence is not available, the Group uses the best estimate of the selling price for the deliverable. The Group recognises the revenue allocated to each unit of accounting over the period of performance or at a point in time. Revenue is recognised using either a proportional performance or straight-line method, depending on whether the Group can reasonably estimate the level of effort required to complete the performance obligations under an arrangement. The license and collaboration revenue for the year ended 31 December 2018 was US$51,606,000 (2017: US$18,348,000).

3. SIGNIFICANT ACCOUNTING JUDGEMENTS AND ESTIMATES (continued)

Estimation uncertainty

The key assumptions concerning the future and other key sources of estimation uncertainty at the end of the reporting period, that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year, are described below.

Impairment of goodwill

The Group determines whether goodwill is impaired at least on an annual basis. This requires an estimation of the value in use of the cash-generating units to which the goodwill is allocated. Estimating the value in use requires the Group to make an estimate of the expected future cash flows from the cash-generating units and also to choose a suitable discount rate in order to calculate the present value of those cash flows. The carrying amount of goodwill at 31 December 2018 was US$15,287,000 (2017: US$1,470,000).

Provision for expected credit losses on trade receivables

The Group uses a provision matrix to calculate ECLs for trade receivables. The provision rates are based on days past due for groupings of various customer segments that have similar loss patterns (i.e., by geography, product type, customer type and rating, and coverage by letters of credit and other forms of credit insurance).

The provision matrix is initially based on the Group's historical observed default rates. The Group will calibrate the matrix to adjust the historical credit loss experience with forward-looking information. For instance, if forecast economic conditions (i.e., gross domestic products) are expected to deteriorate over the next year which can lead to an increased number of defaults in the life science sector, the historical default rates are adjusted. At each reporting date, the historical observed default rates are updated and changes in the forward-looking estimates are analysed.

The assessment of the correlation among historical observed default rates, forecast economic conditions and ECLs is a significant estimate. The amount of ECLs is sensitive to changes in circumstances and forecast economic conditions. The Group's historical credit loss experience and forecast of economic conditions may also not be representative of customer's actual default in the future. The information about the ECLs on the Group's trade receivables is disclosed in note 21 to the financial statements.

3. SIGNIFICANT ACCOUNTING JUDGEMENTS AND ESTIMATES (continued)

Estimation uncertainty (continued)

Deferred tax assets

Deferred tax assets are recognised for unused tax losses and deductible temporary differences to the extent that it is probable that taxable profit will be available against which the losses and deductible temporary differences can be utilised. Significant management judgement is required to determine the amount of deferred tax assets that can be recognised, based upon the likely timing and level of future taxable profits together with future tax planning strategies. The outcome of their actual utilisation may be different. The carrying value of deferred tax assets relating to recognised deductible temporary differences at 31 December 2018 was US$11,842,000 (2017: US$7,525,000). The amount of unrecognised tax losses at 31 December 2018 was US$9,661,000 (2017: US$1,817,000). Further details are contained in note 29 to the financial statements.

Net realisable value of inventories

Net realisable value of inventories is the estimated selling price in the ordinary course of business less estimated selling expenses. These estimates are based on the current market condition and the historical experience of selling products of similar nature. It could change significantly as a result of changes in market conditions. Management reassesses these estimates at each reporting date. At 31 December 2018, the net carrying value of inventories was US$12,429,000 (2017: US$6,878,000).

Share-based compensation

The fair value of most share options granted by the Group is estimated using the binomial model. The use of a valuation model requires management to make certain assumptions with respect to selected model inputs. Management estimates expected volatility based on the historical volatility of the stock of comparable companies. Expiration date is the basis for determining the expected life of an option. The risk-free interest rate is based on treasury yield curve rates with a remaining term which approximates to the expected life assumed at the date of grant. Changes in these input variables would affect the amount of expense associated with share-based compensation. The compensation expense recognised for all share-based awards is net of estimated forfeitures. The Company estimates forfeiture rates based on historical analysis of option forfeitures. If actual forfeitures vary from estimated forfeitures, adjustments to compensation expense may be required. For the year ended 31 December 2018, the equity-settled share option expense was US$8,852,000 (2017: US$$2,811,000).

4. OPERATING SEGMENT INFORMATION

In light of the increase in size of the Group's biologics development services segment business, a new segment has been added from 1 January 2018 onwards, the segment information previously presented under "Bio-science services and products segment". Both in the internal management reports adopted by the chief operating decision-makers, and in the consolidated financial statements of the Group. The comparative figures have also been reclassified to conform to the new presentation. The above changes in segment information were taken to better reflect the current operations of the Group, as well as the resource allocation and future business developments of the Group.

For management purposes, the Group is organised into business units based on their products and services and has four reportable operating segments as follows:

(a) The bio-science services and products segment provides comprehensive research services in five key categories, namely, gene synthesis and molecular cloning, oligonucleotide synthesis, protein production, peptide synthesis, and antibody development. These services and associated products are widely used and are fundamental to life sciences research and application, such as basic biology studies, disease and pharmaceutical research, drug discovery, agriculture, environmental studies, and the food industry. Under the life sciences research catalog products sub-segment, it provides pre-packaged, ready-to-use, and off-the-shelf products. Under the preclinical drug development services sub-segment, it provides integrated contract research services in the key category, namely, protein engineering;

(b) The biologics development services segment provides comprehensive services in five key categories, namely, antibody drug discovery, antibody drug pre-clinical development, antibody drug clinical development, plasmid and virus pre-clinical development, and plasmid & virus clinical development. These services and associated products are aimed to help biopharmaceutical and biotech companies accelerate the development of therapeutic antibodies, and gene/cell therapy products with an integrated platform from the beginning of drug discovery stage down to pre-clinical development stage and clinical development stage;

(c) The industrial synthetic biology products segment, comprising the construction of non-pathogenic microbial strains and industrial enzyme development and production;

(d) The cell therapy was initially generated from the Company's proprietary antibody development platform. It discovers and develops the innovative therapies for the treatment of liquid tumor through optimised CAR structures and the development of bispecific CAR-T therapies.

Management monitors the results of the Group's operating segments separately for the purpose of making decisions about resource allocation and performance assessment. Segment performance is evaluated based on reportable segment profit or loss, which is a measure of segment revenue less segment cost of sales.

No analysis of the Group's assets and liabilities by operating segments is disclosed as it is not regularly provided to the chief operating decision maker for review.

4. OPERATING SEGMENT INFORMATION (continued)

Year ended 31 December 2018	Bio-science services and products US$'000	Biologics development services US$'000	Industrial synthetic biology products US$'000	Cell therapy US$'000	Total US$'000
Segment revenue (Note 5)					
External customers	141,026	20,655	17,730	51,606	231,017
Segment cost of sales					
External customers	45,437	11,826	15,215	–	72,478
Segment results	95,589	8,829	2,515	51,606	158,539
Other income and gains					18,941
Selling and distribution expenses					(38,771)
Administrative expenses					(40,582)
Impairment losses on financial assets, net					(977)
Research and development expenses					(74,076)
Other expenses					(121)
Finance costs					(52)
Share of losses of associates					(201)
Profit before tax					22,700

Year ended 31 December 2017	Bio-science services and products US$'000	Biologics development services US$'000	Industrial synthetic biology products US$'000	Cell therapy US$'000	Total US$'000
Segment revenue (Note 5)					
External customers	109,216	13,296	11,789	18,348	152,649
Segment cost of sales					
External customers	32,477	7,032	8,549	–	48,058
Segment results	76,739	6,264	3,240	18,348	104,591
Other income and gains					6,386
Selling and distribution expenses					(24,908)
Administrative expenses					(22,039)
Research and development expenses					(18,055)
Other expenses					(7,415)
Share of losses of associates					(39)
Profit before tax					38,521

4. OPERATING SEGMENT INFORMATION (continued)

Geographic information

(a) Revenue from external customers

	2018 US$'000	2017 US$'000
North America	**132,681**	85,834
Europe	**18,456**	20,153
China	**48,001**	30,810
Asia Pacific (excluding China and Japan)	**12,916**	7,797
Japan	**4,437**	4,634
Others	**14,526**	3,421
Total	**231,017**	152,649

The revenue information above is based on the locations of the customers.

(b) Non-current assets

	2018 US$'000	2017 US$'000
China	**142,435**	97,878
Other countries	**83,236**	966
Total	**225,671**	98,844

The non-current asset information above is based on the locations of assets and excludes deferred tax assets.

Information about major customer

Revenue of approximately US$51,606,000 (2017: US$18,348,000) was derived from sales by the cell therapy segment to a single customer.

5. REVENUE, OTHER INCOME AND GAINS

An analysis of revenue is as follows:

	2018 US$'000	2017 US$'000
Revenue from contracts with customers		
Rendering of services	**150,500**	115,289
Sale of goods	**28,911**	19,012
License and collaboration revenue	**51,606**	18,348
	231,017	152,649

Revenue from contracts with customers

(i) Disaggregated revenue information

For the year ended 31 December 2018

Segment	Bio-science services and products US$'000	Biologics development services US$'000	Industrial synthetic biology products US$'000	Cell therapy US$'000	Total US$'000
Type of goods or services					
Rendering of services	**129,834**	**20,655**	**11**	**–**	**150,500**
Sale of goods	**11,192**	**–**	**17,719**	**–**	**28,911**
License and collaboration revenue	**–**	**–**	**–**	**51,606**	**51,606**
Total revenue from contracts with customers	**141,026**	**20,655**	**17,730**	**51,606**	**231,017**
Timing of revenue recognition					
Goods transferred at a point in time	**11,192**	**–**	**17,719**	**–**	**28,911**
Services transferred at a point in time	**129,834**	**20,655**	**11**	**–**	**150,500**
Licenses transferred at a point in time	**–**	**–**	**–**	**10,500**	**10,500**
Services transferred over time	**–**	**–**	**–**	**41,106**	**41,106**
Total revenue from contracts with customers	**141,026**	**20,655**	**17,730**	**51,606**	**231,017**

5. REVENUE, OTHER INCOME AND GAINS (continued)

Revenue from contracts with customers (continued)

(i) Disaggregated revenue information (continued)

The following table shows the amounts of revenue recognised in the current reporting period that were included in the contract liabilities at the beginning of the reporting period and recognised from performance obligations satisfied in previous periods:

	2018 US$'000
Revenue recognised that was included in contract liabilities at the beginning of the reporting period:	
License and collaboration revenue	28,685

There is no revenue recognised from performance obligations satisfied in previous periods.

(ii) Performance obligations

Information about the Group's performance obligations is summarised below:

Rendering of services

The performance obligation is satisfied upon the services are rendered and payment is generally due upon completion of services and customer acceptance, except for new customers, where payment in advance is normally required.

Sale of goods

The performance obligation is satisfied upon delivery of the goods and payment is generally due within 30 to 90 days from delivery, except for new customers, where payment in advance is normally required.

Licensing of intellectual property

The performance obligation is satisfied by transferring control of the promised licensing of intellectual property. The transfer of control of license can occur at a point in time.

5. REVENUE, OTHER INCOME AND GAINS (continued)

Revenue from contracts with customers (continued)

(ii) Performance obligations (continued)

The transaction prices allocated to the remaining performance obligations (unsatisfied or partially unsatisfied) as at 31 December 2018 are as follows:

	2018 US$'000
Within one year	**41,018**
More than one year	**262,127**
	303,154

The remaining performance obligations are related to license and collaboration revenue. The amounts disclosed above do not include variable consideration which is constrained.

	2018 US$'000	2017 US$'000
Other income and gains		
Foreign currency exchange gain, net	**3,959**	–
Government grants	**3,598**	4,272
Debt relief	**–**	1,058
Bank interest income	**10,004**	857
Investment income	**–**	131
Fair value gains on financial assets at fair value change through profit or loss	**1,295**	–
Others	**85**	68
	18,941	6,386

6. PROFIT BEFORE TAX

The Group's profit before tax is arrived at after charging/(crediting):

	Notes	2018 US$'000	2017 US$'000
Cost of inventories sold		**6,726**	2,655
Cost of services provided		**36,148**	20,487
Depreciation of items of property, plant and equipment	12	**11,122**	6,465
Amortisation of other intangible assets *	16	**1,582**	352
Amortisation of prepaid land lease payments	14	**230**	183
Impairment of financial assets, net:			
Impairment of trade receivables	20	**968**	546
Impairment of financial assets included in prepayments, other receivables and other assets	21	**9**	–
Minimum lease payments under operating leases:			
Land and buildings		**1,655**	1,767
Auditors' remuneration		**505**	374
Employee benefit expense (excluding directors' remuneration):			
Wages and salaries		**75,160**	43,340
Pension scheme contributions (defined contribution schemes)		**8,912**	3,256
Equity-settled share option expense		**8,652**	2,774
		92,724	49,370
Research and development costs (excluding employee benefit expense)		**57,821**	13,573
Foreign currency exchange (gain)/loss		**(3,959)**	7,338
Loss on disposal of items of property, plant and equipment		**18**	260
Write-down of inventories to net realisable value		**388**	304

* The amortisation of other intangible assets for the year is included in "Administrative expenses" on the face of the consolidated statement of profit or loss.

7. FINANCE COSTS

	2018 US$'000	2017 US$'000
Interest on bank loans	**52**	–

8. DIRECTORS' REMUNERATION

Directors' remuneration for the year, disclosed pursuant to the Listing Rules, section 383(1)(a), (b), (c) and (f) of the Hong Kong Companies Ordinance and Part 2 of the Companies (Disclosure of Information about Benefits of Directors) Regulation, is as follows:

	2018 US$'000	2017 US$'000
Fee	**127**	128
Other emoluments:		
Salaries, allowances and benefits in kind	**877**	894
Performance related bonuses	**31**	31
Equity-settled share option expense	**200**	37
Pension scheme contributions	**14**	12
	1,122	974
	1,249	1,102

(a) Independent non-executive directors

The fees paid to independent non-executive directors during the year were as follows:

	2018 US$'000	2017 US$'000
Mr. Guo Hongxin	**31**	32
Mr. Dai Zumian	**31**	32
Ms. Zhang Min[1]	**28**	32
Mr. Pan Jiu'an	**3**	–
	93	96

[1] Ms. Zhang Min has retired from 26 November 2018.

The equity-settled share option expense of independent non-executive directors during the year was as follows:

	2018 US$'000	2017 US$'000
Mr. Guo Hongxin	**59**	–
Mr. Dai Zumian	**59**	–
	118	–

There were no other emoluments payable to the independent non-executive directors during the year (2017: Nil).

8. DIRECTORS' REMUNERATION (continued)

(b) Executive directors and non-executive directors

	Fees	Salaries, allowances and benefits in kind*	Performance related bonuses	Equity-settled share option expense	Pension scheme contributions	Total remuneration
	US$'000	US$'000	US$'000	US$'000	US$'000	US$'000
2018						
Executive directors:						
Mr. Zhang Fangliang	–	313	–	–	7	320
Ms. Wang Ye	–	429	–	–	–	429
Mr. Meng Jiange	–	135	31	23	7	196
	–	877	31	23	14	945
Non-executive directors:						
Mr. Pan Yuexin	31	–	–	59	–	90
Ms. Wang Jiafen	3	–	–	–	–	3
	34	–	–	59	–	93
2017						
Executive directors:						
Mr. Zhang Fangliang	–	312	–	–	6	318
Ms. Wang Ye	–	483	–	–	–	483
Mr. Meng Jiange	–	99	31	37	6	173
	–	894	31	37	12	974
Non-executive director:						
Mr. Pan Yuexin	32	–	–	–	–	32

* The benefits in kind include contributions made for directors' U.S. social security and medical insurance paid by the Group.

There was no arrangement under which a director waived or agreed to waive any remuneration during the year.

9. FIVE HIGHEST PAID EMPLOYEES

The five highest paid employees during the year included two directors (2017: two directors), details of whose remuneration are set out in note 8 above. Details of the remuneration for the year of the remaining three (2017: three) highest paid employees who are neither a director nor chief executive of the Company are as follows:

	2018 US$'000	2017 US$'000
Salaries, allowances and benefits in kind	**917**	716
Performance related bonuses	**480**	203
Equity-settled share option expense	**297**	21
Pension scheme contributions	**48**	–
	1,742	940

The number of the non-director and non-chief executive highest paid employees whose remuneration fell within the following bands is as follows:

	Number of employees	
	2018	2017
HK$1,000,001 to HK$2,000,000	**–**	1
HK$2,000,001 to HK$3,000,000	**1**	2
HK$3,000,001 to HK$4,000,000	**1**	–
HK$4,000,001 to HK$5,000,000	**–**	–
HK$5,000,001 to HK$6,000,000	**1**	–
	3	3

10. INCOME TAX

Pursuant to the rules and regulations of Cayman Islands and the British Virgin Islands, the Group is not subject to any income tax in Cayman and BVI.

Hong Kong profits tax has been provided at the rate of 16.5% (2017: 16.5%) on the estimated assessable profits arising in Hong Kong during the year.

The subsidiaries of the Group operating in the United States of America were subject to federal tax at a rate of 21% and state tax at a rate of 9% in New Jersey and 0% in the State of Washington during the year.

The subsidiary of the Group operating in Ireland was subject to income tax at the rate of 12.5% on the estimated assessable profits arising in Ireland during the year.

The subsidiary of the Group operating in Japan was subject to income tax at rates ranging from 22% to 31.5% depending on its earnings during the year.

10. INCOME TAX (continued)

The subsidiary of the Group operating in the Netherlands was subject to income tax at the rate of 25% on the estimated assessable profits arising in the Netherlands during the year.

The provision for current income tax in Mainland China is based on the statutory rate of 25% of the assessable profits of certain PRC subsidiaries of the Group as determined in accordance with the PRC Corporate Income Tax Law which was approved and became effective on 1 January 2008, except for certain subsidiaries of the Group in Mainland China which are granted tax concession and are taxed at preferential tax rates.

Nanjing Jinsirui, Nanjing Jinsikang and Jiangsu Jinsirui are qualified as Advanced Technology Service Enterprises. All of them were subject to income tax at a preferential tax rate of 15% for the reporting period. Nanjing Bestzyme and Jinan Bestzyme are qualified as High and New Technology Enterprises. Both of them were subject to income tax at a preferential tax rate of 15% for the reporting period.

	2018	2017
	US$'000	US$'000
Current – Mainland China	**961**	4,136
Current – Elsewhere	**5,318**	10,005
Deferred	**(4,338)**	(2,625)
Total tax charge for the year	**1,941**	11,516

A reconciliation of the tax expense applicable to profit before tax at the statutory rates for the countries (or jurisdictions) in which the Company and the majority of its subsidiaries are domiciled to the tax expense at the effective tax rates is as follows:

	2018	2017
	US$'000	US$'000
Profit before tax	**22,700**	38,521
At the PRC's statutory income tax rate of 25%	**5,675**	9,630
Effect of tax rate differences in other countries	**(1,066)**	3,815
Preferential income tax rates applicable to subsidiaries	**(2,588)**	(2,847)
Effect on opening deferred tax of decrease in rates	**–**	453
Effect of withholding tax on the distributable profit of subsidiaries	**–**	1,579
Additional deductible allowance for research and development expenses	**(4,770)**	(1,866)
Effect of non-deductible expenses	**2,402**	926
Tax losses not recognised	**2,218**	314
Tax losses utilised from previous years	**(15)**	(406)
Others	**85**	(82)
Tax charge at the Group's effective rate	**1,941**	11,516

11. DIVIDENDS

	2018 US$'000	2017 US$'000
Dividends on ordinary shares during the period	–	–

The Board has resolved not to declare any dividend for the year ended December 31, 2018 (For the year ended December 31,2017: Nil)

12. EARNINGS PER SHARE ATTRIBUTABLE TO ORDINARY EQUITY HOLDERS OF THE PARENT

The calculation of the basic earnings per share amount is based on the profit for the year attributable to ordinary equity holders of the parent, and the weighted average number of ordinary shares of 1,792,336,607 (2017: 1,714,343,224) in issue during the year, as adjusted to reflect the rights issue during the year.

The calculation of the diluted earnings per share amount is based on the profit for the year attributable to ordinary equity holders of the parent. The weighted average number of ordinary shares used in the calculation is the number of ordinary shares in issue during the year, as used in the basic earnings per share calculation, and the weighted average number of ordinary shares assumed to have been issued at no consideration on the deemed exercise of all dilutive potential ordinary shares into ordinary shares.

The calculations of basic and diluted earnings per share are based on:

	2018 US$'000	2017 US$'000
Earnings		
Profit attributable to ordinary equity holders of the parent, used in the basic earnings per share calculation	**21,216**	26,123

	Number of shares	
	2018	2017
Shares		
Weighted average number of ordinary shares in issue during the year used in the basic earnings per share calculation	**1,792,336,607**	1,714,343,224
Effect of dilution – weighted average number of ordinary shares:		
Share options	**47,278,259**	14,375,400
	1,839,614,866	1,728,718,624

13. PROPERTY, PLANT AND EQUIPMENT

	Land and buildings US$'000	Machinery and equipment US$'000	Motor vehicles US$'000	Computer and office equipment US$'000	Construction in progress US$'000	Total US$'000
31 December 2018						
At 31 December 2017 and at 1 January 2018:						
Cost	34,525	37,602	568	5,782	28,720	107,197
Accumulated depreciation and impairment	(4,783)	(18,097)	(251)	(3,558)	–	(26,689)
Net carrying amount	29,742	19,505	317	2,224	28,720	80,508
At 1 January 2018, net of accumulated depreciation and impairment	29,742	19,505	317	2,224	28,720	80,508
Acquisition of subsidiaries	–	–	–	43	–	43
Additions	29,820	89	–	135	60,830	90,874
Disposals	–	(17)	–	(1)	–	(18)
Depreciation provided during the year	(2,576)	(7,096)	(57)	(1,393)	–	(11,122)
Exchange realignment	(1,388)	(766)	(13)	(81)	(24)	(2,272)
Transfers	13,934	27,409	43	2,068	(43,454)	–
At 31 December 2018, net of accumulated depreciation and impairment	69,532	39,124	290	2,995	46,072	158,013
At 31 December 2018:						
Cost	76,514	62,540	583	7,842	46,072	193,551
Accumulated depreciation and impairment	(6,982)	(23,416)	(293)	(4,847)	–	(35,538)
Net carrying amount	69,532	39,124	290	2,995	46,072	158,013

13. PROPERTY, PLANT AND EQUIPMENT (continued)

	Land and buildings US$'000	Machinery and equipment US$'000	Motor vehicles US$'000	Computer and office equipment US$'000	Construction in progress US$'000	Total US$'000
31 December 2017						
At 31 December 2016 and at 1 January 2017:						
Cost	31,125	29,675	450	3,995	1,968	67,213
Accumulated depreciation and impairment	(3,328)	(17,258)	(189)	(2,703)	–	(23,478)
Net carrying amount	27,797	12,417	261	1,292	1,968	43,735
At 1 January 2017, net of accumulated depreciation and impairment	27,797	12,417	261	1,292	1,968	43,735
Additions	745	499	–	69	40,098	41,411
Disposals	(21)	(92)	(7)	(14)	(260)	(394)
Depreciation provided during the year	(1,215)	(4,320)	(50)	(880)	–	(6,465)
Exchange realignment	1,760	578	16	(74)	(59)	2,221
Transfers	676	10,423	97	1,831	(13,027)	–
At 31 December 2017, net of accumulated depreciation and impairment	29,742	19,505	317	2,224	28,720	80,508
At 31 December 2017:						
Cost	34,525	37,602	568	5,782	28,720	107,197
Accumulated depreciation and impairment	(4,783)	(18,097)	(251)	(3,558)	–	(26,689)
Net carrying amount	29,742	19,505	317	2,224	28,720	80,508

14. PREPAID LAND LEASE PAYMENTS

	2018 US$'000	2017 US$'000
Carrying amount at 1 January	**10,411**	7,955
Additions	**8,104**	2,173
Recognised	**(230)**	(183)
Exchange realignment	**(479)**	466
Carrying amount at end of year	**17,806**	10,411
Current portion included in prepayments, other receivables and other assets	**(392)**	(222)
Non-current portion	**17,414**	10,189

At 31 December 2018, the directors are of the view that the Group is entitled to lawfully and validly occupy and use the above-mentioned leasehold lands. All the land use rights of the Group are located in Mainland China and are held under leases of 50 years.

15. GOODWILL

	2018 US$'000	2017 US$'000
Cost at 1 January	**1,470**	1,384
Acquisition of a subsidiary	**13,888**	–
Exchange realignment	**(71)**	86
Cost and net carrying amount at 31 December	**15,287**	1,470

15. GOODWILL (continued)

Impairment testing of goodwill

Goodwill acquired through business combinations is allocated to the following cash-generating units for impairment testing:

The recoverable amount of the bio-science services and products cash-generating unit has been determined based on a value in use calculation using cash flow projections based on financial budgets covering a five-year period approved by senior management. The discount rate applied to the cash flow projections is 16% to 23%. The growth rate used to extrapolate the cash flows of the industrial products unit beyond the five-year period is 0% to 3%, which is the same as the long-term growth rate of the industry.

The recoverable amount of the industrial synthetic biology products cash-generating unit has been determined based on a value in use calculation using cash flow projections based on financial budgets covering a five-year period approved by senior management. The discount rate applied to the cash flow projections is 16% (2017: 12.8%). The growth rate used to extrapolate the cash flows of the industrial products unit beyond the five-year period is 3% (2017: 0%), which is the same as the long-term growth rate of the industry.

Assumptions were used in the value in use calculation of the three cash-generating unit for 31 December 2018. The following describes each key assumption on which management has based its cash flow projections to undertake impairment testing of goodwill:

Budgeted gross margins – The basis used to determine the value assigned to the budgeted gross margins is the average gross margins achieved in the year immediately before the budget year, increased for expected efficiency improvements, and expected market development.

Discount rates – The discount rates used are before tax and reflect specific risks relating to the relevant unit.

The values assigned to the key assumptions on market development of industrial synthetic biology products and discount rates are consistent with external information sources.

16. OTHER INTANGIBLE ASSETS

	Software	Patents and licenses	Customer relationship	Total
	US$'000	US$'000	US$'000	US$'000
31 December 2018				
Cost at 1 January 2018, net of accumulated amortisation	**968**	**1,364**	**135**	**2,467**
Acquisition of subsidiaries	**–**	**18,263**	**–**	**18,263**
Additions	**335**	**331**	**–**	**666**
Amortisation provided during the year	**(370)**	**(1,197)**	**(15)**	**(1,582)**
Exchange realignment	**(49)**	**(116)**	**(7)**	**(172)**
At 31 December 2018	**884**	**18,645**	**113**	**19,642**
At 31 December 2018:				
Cost	**1,927**	**20,114**	**151**	**22,192**
Accumulated amortisation	**(1,043)**	**(1,469)**	**(38)**	**(2,550)**
Net carrying amount	**884**	**18,645**	**113**	**19,642**
31 December 2017				
Cost at 1 January 2017, net of accumulated amortisation	786	1,202	142	2,130
Additions	343	240	–	583
Amortisation provided during the year	(202)	(135)	(15)	(352)
Exchange realignment	41	57	8	106
At 31 December 2017	968	1,364	135	2,467
At 31 December 2017:				
Cost	1,730	1,592	158	3,480
Accumulated amortisation	(762)	(228)	(23)	(1,013)
Net carrying amount	968	1,364	135	2,467

17. INVESTMENTS IN ASSOCIATES

	2018	2017
	US$'000	US$'000
Share of net assets	**2,924**	614

The Group's trade receivable with the associates are disclosed in notes 21 to the financial statements, respectively.

The following table illustrates the aggregate financial information of the Group's associates that are not individually material:

	2018	2017
	US$'000	US$'000
Share of the associates' loss for the year	**(201)**	(39)
Share of the associates' total comprehensive loss	**(201)**	(39)
Aggregate carrying amount of the Group's investments in the associates	**2,924**	614

18. FINANCIAL ASSETS AT FAIR VALUE THROUGH PROFIT OR LOSS/AVAILABLE-FOR-SALE INVESTMENTS

	2018	2017
	US$'000	US$'000
Financial assets at fair value through profit or loss		
Unlisted equity investments, at fair value	**3,405**	–
Investment in financial products, at fair value	**70,056**	–
	73,461	–
Available-for-sale investments		
Investment in financial products, at fair value	**–**	3,088

The above equity investments at 31 December 2018 were classified as financial assets at fair value through profit or loss as they were held for trading.

The above investment in financial products at 31 December 2017 and 2018 were wealth management products issued by banks in China and Hong Kong. They were mandatorily classified as financial assets at fair value through profit or loss as their contractual cash flows are not solely payments of principal and interest.

19. EQUITY INVESTMENTS DESIGNATED AT FAIR VALUE THROUGH OTHER COMPREHENSIVE INCOME/AVAILABLE-FOR-SALE INVESTMENTS

	2018 US$'000	2017 US$'000
Equity investments designated at fair value through other comprehensive income		
Unlisted equity investments, at fair value	**4,949**	–
Available-for-sale investments		
Unlisted investments, at cost	**–**	1,136

The above equity investments were irrevocably designated at fair value through other comprehensive income as the Group considers these investments to be strategic in nature.

20. INVENTORIES

	2018 US$'000	2017 US$'000
Raw materials	**4,445**	3,109
Work in progress	**2,922**	1,756
Finished goods	**6,606**	3,169
	13,973	8,034
Less: Provision for inventories	**(1,544)**	(1,156)
	12,429	6,878

Inventory provision of US$388,000 was recognised for the year ended 31 December 2018 (2017: US$304,000). Inventory provision has been included in "cost of sales" in the consolidated statement of profit or loss.

21. TRADE AND NOTES RECEIVABLES

	2018	2017
	US$'000	US$'000
Trade receivables	**67,999**	255,156
Notes receivable	**2,429**	1,806
	70,428	256,962
Less: Impairment of trade receivables	**(2,585)**	(1,611)
	67,843	255,351

The Group's trading terms with its customers are mainly on credit. The credit period is 30 to 90 days. The Group seeks to maintain strict control over its outstanding receivables and overdue balances are reviewed regularly by management. In view of the aforementioned and the fact that the Group's trade receivables relate to a large number of diversified customers, there is no significant concentration of credit risk. Trade receivables are non-interest-bearing.

Included in the Group's trade receivables are amounts due from the Group's associates of US$994,000 (2017: US$141,000), which are repayable on credit terms similar to those offered to the major customers of the Group.

An ageing analysis of the trade receivables as at the end of the year, based on the invoice date, is as follows:

	2018	2017
	US$'000	US$'000
Within 3 months	**59,692**	250,841
3 months to 6 months	**2,829**	2,100
6 months to 12 months	**720**	610
Over one year	**4,758**	1,605
	67,999	255,156

21. TRADE AND NOTES RECEIVABLES (continued)

Movements in the loss allowance for impairment of trade receivables were as follows:

	Total US$'000
At 1 January 2018	**1,611**
Acquisition of subsidiaries	**6**
Impairment losses recognised	**1,234**
Impairment losses reversed	**(262)**
Amount written off as uncollectible	**(4)**
At 31 December 2018	**2,585**
At 1 January 2017	1,065
Impairment losses recognised	634
Impairment losses reversed	(88)
At 31 December 2017	1,611

Impairment under HKFRS 9 for the year ended 31 December 2018

An impairment analysis is performed at each reporting date using a provision matrix to measure expected credit losses. The provision rates are based on days past due for groupings of various customer segments with similar loss patterns (i.e., by geographical region, product type, customer type and rating, and coverage by letters of credit or other forms of credit insurance). The calculation reflects the probability-weighted outcome, the time value of money and reasonable and supportable information that is available at the reporting date about past events, current conditions and forecasts of future economic conditions.

Set out below is the information about the credit risk exposure on the Group's trade receivables using a provision matrix:

	As at 31 December 2018		
	Gross carrying amount USD'000	**Expected loss rate**	**Expected credit loss USD'000**
Trade receivables from clients with no credit risk	**31,343**	**–**	**–**
Other trade receivables aged:			
Less than one year	**34,264**	**1.70%**	**582**
Within 1 to 2 years	**888**	**57.75%**	**513**
Within 2 to 3 years	**245**	**94.19%**	**231**
Over 3 years	**1,259**	**100%**	**1,259**
	67,999		**2,585**

21. TRADE AND NOTES RECEIVABLES (continued)

Impairment under HKAS 39 for the year ended 31 December 2017

The ageing analysis of the trade receivables that were not individually nor collectively considered to be impaired under HKAS 39 is as follows:

	2017 US$'000
Neither past due nor impaired	243,061
Less than 3 months past due	9,180
Over 3 months past due	1,304
	253,545

Trade receivables that were neither past due nor impaired relate to a large number of diversified customers for whom there was no recent history of default.

The notes receivable were due within six months. No notes receivable were endorsed as at 31 December 2018 (2017: US$628,000). No subsidiary has pledged notes receivable as at 31 December 2018 (2017: US$295,000) to secure a credit limit from a bank.

22. PREPAYMENTS, OTHER RECEIVABLES AND OTHER ASSETS

	2018 US$'000	2017 US$'000
VAT recoverable (i)	**6,891**	3,399
Prepayments	**5,713**	3,122
Interest receivable	**6,071**	–
Other receivables	**1,811**	878
Prepaid expense	**1,048**	322
Advance to employees	**389**	633
	21,923	8,354
Less: Impairment of other receivables	**(34)**	(25)
	21,889	8,329

(i) The Group's domestic sales of goods and rendering of services are subject to China Value Added Tax ("VAT"). Input VAT on purchases can be deducted from output VAT payable. The VAT recoverable is mainly the net difference between output and deductible input VAT.

Movements in the provision for impairment of other receivables were as follows:

	Individually impaired US$'000
At 1 January 2018	**25**
Impairment losses recognised	**9**
At 31 December 2018	**34**
At 1 January 2017	25
At 31 December 2017	25

The ageing analysis of the prepayments, other receivables and other assets that are not considered to be impaired is as follows:

	2018 US$'000	2017 US$'000
Neither past due nor impaired	**21,889**	8,329

23. CASH AND CASH EQUIVALENTS AND PLEDGED DEPOSITS

	Note	2018	2017
		US$'000	US$'000
Cash and bank balances		**494,558**	123,857
Pledged short-term deposits		**12,688**	392
		507,246	124,249
Less: Pledged short-term deposits:			
Pledged for letters of credit		**–**	(202)
Pledged for short-term bank loans	26	**(11,004)**	–
Pledged for notes payable		**(1,684)**	(190)
Cash and cash equivalents		**494,558**	123,857
Denominated in US$		**474,372**	103,387
Denominated in HK$		**1,962**	1,072
Denominated in RMB		**13,795**	15,534
Denominated in EUR		**1,729**	2,318
Denominated in JPY		**1,412**	503
Denominated in CHF		**265**	–
Denominated in GBP		**1,023**	1,043
Cash and cash equivalents		**494,558**	123,857

At the end of the year, the cash and bank balances of the Group denominated in Renminbi ("RMB") amounted to US$13,795,000 (2017: US$15,534,000). The RMB is not freely convertible into other currencies, however, under Mainland China's Foreign Exchange Control Regulations and Administration of Settlement, Sale and Payment of Foreign Exchange Regulations, the Group is permitted to exchange RMB for other currencies through banks authorised to conduct foreign exchange business.

Cash at banks earns interest at floating rates based on daily bank deposit rates. Short-term deposits are pledged for letters of credit and notes payable. The bank balances and pledged deposits are deposited with creditworthy banks with no recent history of default. The carrying amounts of the cash and cash equivalents approximate to their fair values.

24. TRADE AND NOTES PAYABLES

An ageing analysis of the trade payables as at the end of the year, based on the invoice date, is as follows:

	2018 US$'000	2017 US$'000
Trade payables	**9,547**	7,047
Notes payable	**1,640**	1,107
	11,187	8,154

	2018 US$'000	2017 US$'000
Within 3 months	**9,364**	6,432
3 months to 6 months	**57**	122
6 months to 12 months	**56**	105
Over 1 year	**70**	388
	9,547	7,047

The trade payables are non-interest-bearing and are normally settled on 60-day terms.

25. OTHER PAYABLES AND ACCRUALS

	2018 US$'000	2017 US$'000
Deferred revenue (note)	**–**	209,152
Payables for purchases of machinery and construction of buildings	**22,817**	14,615
Accrued payroll	**12,852**	9,746
Advances from customers	**11,742**	9,188
Other payables	**2,366**	4,641
Accrued expenses	**23,631**	3,120
Taxes payable other than corporate income tax	**536**	1,463
	73,944	251,925

Note: Deferred revenue of 2017 represents deferred license and collaboration revenue, which will be amortized over the service period.

26. INTEREST-BEARING BANK BORROWINGS

	2018			2017		
	Effective interest rate (%)	Maturity	US$'000	Effective interest rate (%)	Maturity	US$'000
Current						
Bank loans – secured	0.1	2019	9,919	–	–	–
Bank loans – unsecured	6.6	2019	583	–	–	–
			10,502			–

	2018 US$'000	2017 US$'000
Analysed into:		
Bank loans repayable:		
Within one year or on demand	10,502	–

Certain of the Group's bank loans is secured by the pledge of certain of the Group's time deposits amounting to US$11,004,000 (2017: Nil).

27. CONTRACT LIABILITIES

Details of contract liabilities as at 31 December 2018 and 1 January 2018 are as follows:

	31 December 2018 US$'000	1 January 2018 US$'000
Non-current		
License and collaboration revenue	262,127	160,039
Current		
License and collaboration revenue	41,018	47,183
	303,145	207,222

Contract liabilities include advances received to provide services in service period. The increase in contract liabilities in 2018 was mainly due to the increase amounts received from customers in relation to the provision of services at the end of the year.

28. GOVERNMENT GRANTS

	2018 US$'000	2017 US$'000
At 1 January	**2,977**	2,393
Grants received during the year	**1,594**	505
Amount released	**(320)**	(66)
Exchange realignment	**(135)**	145
At end of year	**4,116**	2,977
Current	**98**	90
Non-current	**4,018**	2,887
	4,116	2,977

The grants were related to the subsidies received from local government authorities for the purpose of compensation for the expenditure on certain facilities and were credited to a deferred income account. The grants were released to the statement of profit or loss over the expected useful lives of the relevant assets. The Group also received certain financial subsidies from local government authorities to support local business. There were no unfulfilled conditions and other contingencies attached to these government grants. These government grants were recognised in the statement of profit or loss upon receipt.

29. DEFERRED TAX

The movements in deferred tax liabilities and assets during the year are as follows:

Deferred tax liabilities

	Depreciation allowance in excess of related depreciation US$'000	Fair value adjustments arising from acquisition of a subsidiary US$'000	Withholding tax US$'000	Total US$'000
At 1 January 2018	**48**	**342**	**–**	**390**
Acquisition of a subsidiary	**6**	**3,884**	**–**	**3,890**
Deferred tax credited to the statement of profit or loss during the year	**(8)**	**(196)**	**–**	**(204)**
Exchange realignment	**–**	**(13)**	**–**	**(13)**
Gross deferred tax liabilities at 31 December 2018	**46**	**4,017**	**–**	**4,063**
At 1 January 2017	37	316	131	484
Deferred tax charged/(credited) to the statement of profit or loss during the year	11	6	(135)	(118)
Exchange realignment	–	20	4	24
Gross deferred tax liabilities at 31 December 2017	48	342	–	390

29. DEFERRED TAX (continued)

Deferred tax assets

	Accrued expenses US$'000	Decelerated depreciation for tax purposes US$'000	Impairment of assets US$'000	Unrealised profit from intercompany transactions US$'000	Government grants US$'000	Losses available for offsetting against future taxable profits US$'000	Total US$'000
At 1 January 2018	**1,318**	**–**	**934**	**4,874**	**447**	**–**	**7,573**
Acquisition of a subsidiary	**–**	**–**	**1**	**–**	**–**	**267**	**268**
Deferred tax (charged)/ credited to the statement of profit or loss during the year	**(184)**	**106**	**347**	**3,202**	**196**	**467**	**4,134**
Exchange realignment	**(33)**	**(3)**	**(17)**	**–**	**(26)**	**(8)**	**(87)**
Gross deferred tax assets at 31 December 2018	**1,101**	**103**	**1,265**	**8,076**	**617**	**726**	**11,888**
At 1 January 2017	2,401	827	1,123	238	359	–	4,948
Deferred tax charged/(credited) to the statement of profit or loss during the year	(1,131)	(852)	(210)	4,636	64	–	2,507
Exchange realignment	48	25	21	–	24	–	118
Gross deferred tax assets at 31 December 2017	1,318	–	934	4,874	447	–	7,573

29. DEFERRED TAX (continued)

For presentation purposes, certain deferred tax assets and liabilities have been offset in the statement of financial position. The following is an analysis of the deferred tax balances of the Group for financial reporting purposes:

	2018 US$'000	2017 US$'000
Net deferred tax liabilities recognised in the consolidated statement of financial position	**4,017**	342
Net deferred tax assets recognised in the consolidated statement of financial position	**11,842**	7,525

The Group has tax losses arising in Hong Kong of US$133,000 (2017: US$65,000) that are available indefinitely for offsetting against future taxable profits of the companies in which the losses arose.

The Group has tax losses arising in Mainland China of US$7,613,000 (2017: US$1,752,000) that will expire in one to five years and US$1,915,000,000 (2017: Nil) that will expire in ten years for offsetting against future taxable profits. Deferred tax assets have not been recognised in respect of these losses as they have arisen in subsidiaries that have been loss-making for some time and it is not considered probable that taxable profits will be available against which the tax losses can be utilised.

Deferred tax assets have not been recognised in respect of the following items:

	2018 US$'000	2017 US$'000
Tax losses	**9,661**	1,817

Pursuant to the PRC Corporate Income Tax Law, a 10% withholding tax is levied on dividends declared to foreign investors from the foreign investment enterprises established in Mainland China. The requirement is effective from 1 January 2008 and applies to earnings after 31 December 2007. A lower withholding tax rate may be applied if there is a tax treaty between Mainland China and the jurisdiction of the foreign investors. For the Group, the applicable rate is 5%. The Group is therefore liable for withholding taxes on dividends distributed by those subsidiaries established in Mainland China in respect of earnings generated from 1 January 2008.

30. SHARE CAPITAL AND SHARE PREMIUM

Shares

	31 December 2018 US$'000	31 December 2017 US$'000
Authorised:		
Ordinary shares of US$0.001 each	**5,000**	5,000
Issued and fully paid:		
Ordinary shares of US$0.001 each	**1,836**	1,734

A summary of movements in the Company's share capital and share premium is as follows:

	Number of shares in issue	Share capital US$'000	Share premium US$'000	Total US$'000
At 1 January 2017	1,691,861,775	1,692	118,051	119,743
Acquisition of equity by minority shareholders	–	–	(1,463)	(1,463)
Purchases of minority shareholders' equity	–	–	(55)	(55)
Share options exercised	41,744,412	42	4,237	4,279
At 31 December 2017 and 1 January 2018	1,733,606,187	1,734	120,770	122,504
Purchases of minority interests of the subsidiary	**–**	**–**	**(297)**	**(297)**
Acquisition of equity by minority shareholders	**–**	**–**	**399**	**399**
Issue of shares under the share placing option	**75,000,000**	**75**	**251,218**	**251,293**
Shares repurchased	**(6,278,000)**	**(6)**	**(11,469)**	**(11,475)**
Share options exercised	**33,034,890**	**33**	**3,479**	**3,512**
At 31 December 2018	**1,835,363,077**	**1,836**	**364,100**	**365,936**

31. SHARE OPTION SCHEME

a) The Company

On 4 May 2018, under the Company's Post-IPO share option scheme adopted on 7 December 2015, 9,600,000 share options to subscribe for an aggregate of 9,600,000 ordinary shares of US$0.001 each of the Company were granted to 13 employees with vesting dates from 10 January 2020 to 4 May 2026 and an exercise price of HK$26.460 per share. The expiration date of the options granted is 10 years after the grant date.

On 29 November 2018, under the Company's Post-IPO share option scheme adopted on 7 December 2015, 3,000,000 share options to subscribe for an aggregate of 3,000,000 ordinary shares of US$0.001 each of the Company were granted to 14 employees with vesting dates from 29 November 2018 to 28 November 2028 and an exercise price of HK$14.040 per share. The expiration date of the options granted is 5-10 years after the grant date.

	2018		2017	
	Weighted average exercise price US$ per share	**Number of options '000**	Weighted average exercise price US$ per share	Number of options '000
At 1 January	**0.1996**	**286,119**	0.0883	282,861
Granted during the year	**2.9960**	**12,600**	0.7421	48,480
Forfeited during the year	**0.4931**	**(3,842)**	0.2452	(3,477)
Exercised during the year	**0.0817**	**(33,035)**	0.0679	(41,745)
At 31 December	**0.3444**	**261,842**	0.1996	286,119

31. SHARE OPTION SCHEME (continued)

a) The Company (continued)

The exercise prices and exercise periods of the share options outstanding as at the end of the year are as follows:

31 December 2018 Number of options exercisable '000	Exercise price* US$ per share	Exercise period
1,232	0.0026	2008/05/12~2019/12/31
86	0.0046	2009/07/03~2019/07/31
91	0.0072	2008/09/26~2019/07/31
145	0.0139	2012/08/01~2019/07/31
389	0.0154	2013/12/31~2019/12/20
2,556	0.0257	2012/12/31~2019/12/31
194	0.0515	2013/08/10~2025/07/31
68,016	0.0617	2014/12/31~2025/07/31
66,009	0.0772	2010/12/31~2025/07/31
41,033	0.1029	2013/02/10~2025/07/31
253	0.1552	2016/06/22~2026/06/21
2,970	0.3102	2017/09/23~2026/09/22
240	1.7948	2018/11/29~2023/11/28
183,214		

31 December 2017 Number of options exercisable '000	Exercise price* US$ per share	Exercise period
1,612	0.0026	2008/05/12~2019/12/31
86	0.0046	2009/07/03~2019/07/31
136	0.0072	2008/09/26~2019/07/31
1,603	0.0103	2010/12/31~2018/01/15
225	0.0139	2011/12/08~2019/07/31
904	0.0154	2013/12/31~2019/12/20
987	0.0206	2012/12/31~2018/10/08
4,588	0.0257	2010/12/31~2019/12/31
194	0.0515	2013/08/10~2025/07/31
68,016	0.0617	2014/12/31~2025/07/31
59,092	0.0772	2010/12/31~2025/07/31
54,742	0.1029	2011/07/15~2025/07/31
117	0.1552	2016/06/22~2026/06/21
400	0.3102	2017/09/23~2026/09/22
192,702		

* The exercise price of the share options is subject to adjustment in the case of rights or bonus issues, or other similar changes in the Company's share capital.

31. SHARE OPTION SCHEME (continued)

a) The Company (continued)

The fair value of the share options granted during the year was US$17,362,853 (US$1.378 each) (2017: US$16,816,584, US$0.347 each), of which the Group recognised a share option expense of US$8,148,139 (2017: US$2,811,000) during the year ended 31 December 2018.

The fair value of equity-settled share options granted during the year was estimated as at the date of grant, using a binomial model, taking into account the terms and conditions upon which the options were granted. The following table lists the inputs to the model used:

	2018	2017
Dividend yield (%)	**–**	–
Expected volatility (%)	**31-34**	40~42
Risk-free interest rate (%)	**2.14-2.26**	1.35~1.71
Expected life of options (year)	**5-10**	10
Weighted average share price (HK$ per share)	**13.88-26.45**	3.45~9.33

The volatility measured at the standard deviation of expected share price returns is based on statistical analysis of comparable listed companies in the same industry.

At 31 December 2018, the Company had 261,842,331 share options outstanding under the share option scheme. The exercise in full of the outstanding share options would, under the present capital structure of the Company, result in the issue of 261,842,331 additional ordinary shares of the Company, an additional share capital of approximately US$261,842 and a share premium of approximately US$89,929,458 (before issue expenses).

At the date of approval of these financial statements, the Company had 184,098,224 share options outstanding under the share option scheme, which represented approximately 10.0% of the Company's shares in issue as at that date.

31. SHARE OPTION SCHEME (continued)

b) The Legend

On 1 January 2018, under the Company's Legend share option scheme adopted on 21 December 2017, 8,100,000 share options to subscribe for an aggregate of 8,100,000 ordinary shares of US$0.001 each of the Company were granted to 44 employees with vesting dates from 31 December 2019 to 31 December 2023 and an exercise price of US$0.500 per share. The expiration date of the options granted is 10 years after the grant date.

On 30 August 2018, under the Company's Legend share option scheme adopted on 21 December 2017, 7,314,000 share options to subscribe for an aggregate of 7,314,000 ordinary shares of US$0.001 each of the Company were granted to 36 employees with vesting dates from 30 August 2019 to 29 August 2028 and an exercise price of US$1.000 per share. The expiration date of the options granted is 10 years after the grant date.

On 31 December 2018, under the Company's Legend share option scheme adopted on 21 December 2017, 696,000 share options to subscribe for an aggregate of 696,000 ordinary shares of US$0.001 each of the Company were granted to 23 employees with vesting dates from 31 December 2019 to 31 December 2023 and an exercise price of US$1.000 per share. The expiration date of the options granted is 10 years after the grant date.

Share options do not confer rights on the holders to dividends or to vote at shareholders' meetings.

The following share options were outstanding during the year:

	2018		2017	
	Weighted average exercise price US$ per share	**Number of options '000**	Weighted average exercise price US$ per share	Number of options '000
At 1 January	**–**	**–**	–	–
Granted during the period	**0.7486**	**16,110**	–	–
Forfeited during the period	**0.5073**	**(1,779)**	–	–
Exercised during the period	**–**	**–**	–	–
At 31 December	**0.7786**	**14,331**	–	–

31. SHARE OPTION SCHEME (continued)

b) The Legend (continued)

There were no exercisable share options outstanding as at the end of the reporting year.

The fair value of the share options granted during the period was US$4,371,908 (US$0.271 each) (2017: Nil), of which the Group recognised a share option expense of US$703,587 (2017: Nil) during the year ended 31 December 2018.

The fair value of equity-settled share options granted during the period was estimated, using a binomial model, taking into account the terms and conditions upon which the options were granted. The following table lists the inputs to the model used:

	2018	2017
Dividend yield (%)	–	–
Expected volatility (%)	64.2-66.4	–
Risk-free interest rate (%)	2.48-2.87	–
Expected life of options (year)	10	–
Weighted average share price (US$ per share)	0.352-0.695	–

The volatility measured at the standard deviation of expected share price returns is based on statistical analysis of comparable listed companies in the same industry.

At the end of reporting period, the Legend had 14,331,000 share options outstanding under the scheme. The exercise in full of the outstanding share options would, under the present capital structure of the Company, result in the issue of 14,331,000 additional ordinary shares of the Legend, an additional share capital of approximately US$14,331 and a share premium of approximately US$11,143,169 (before issue expenses).

32. BUSINESS COMBINATIONS

On 11 January 2018, the Group acquired 100% of the voting shares of CustomArray, Inc("CustomArray"), an unlisted company based in the State of Washington of United States of America that specializes in targeted sequencing. The Group has acquired CustomArray because it is a provider of oligo pools to many of the world's leading academic and industrial organisations for applications including targeted sequencing, complex DNA libraries, synthetic biology, shRNA libraries, and CRISPR. The consideration for the acquisition was in the form of cash, at US$25,749,000.

The fair values of the identifiable assets and liabilities of CustomArray as at the date of acquisition were as follows:

	Fair value recognised on acquisition US$'000
Property, plant and equipment	28
Other intangible assets	15,002
Deferred tax assets	114
Inventories	17
Trade and notes receivables	220
Prepayments, other receivables and other assets	968
Cash and cash equivalents	295
Trade payables	(24)
Other payables and accruals	(385)
Deferred tax liabilities	(3,131)
Total identifiable net assets at fair value	13,104
Goodwill arising on acquisition	12,645
Satisfied by cash	(25,749)

The fair values of the trade receivables and other receivables as at the date of acquisition amounted to US$220,000 and US$968,000, respectively. The gross contractual amounts of trade receivables and other receivables were US$220,000 and US$968,000, respectively.

Included in the goodwill of US$12,645,000 recognised above is technical workforce of the acquiree and the synergy with the Group, which is not recognised separately. Because the technical workforce and synergy is not separable and therefore it does not meet the criteria for recognition as an intangible asset under HKAS 38 Intangible Assets. None of the goodwill recognised is expected to be deductible for income tax purposes.

32. BUSINESS COMBINATIONS (continued)

An analysis of the cash flows on acquisition is as follows:

	US$'000
Cash consideration of the acquisition	(25,749)
Cash and bank balances acquired	295
Net cash outflow on acquisition included in cash flows from investing activities	(25,454)

Since the acquisition, CustomArray contributed US$1,881,000 to the Group's revenue and US$575,000 to the consolidated loss for the year ended 31 December 2018.

On 25 July 2018, the Group acquired another 47.22% of the entire issued shares of Anhui Precision Biotechnology Co., Ltd., ("Precision") for RMB14.17 million, since on 6 September 2017, it has acquired 15% of the entire issued shares of Precision for RMB3.65 million. Precision is incorporated in Chuzhou, a city under Anhui Province and is a provider of bioengineering technology; research and development, transfer, consulting and service of pharmaceutical industry technology; intelligent technology research and development; instrumentation research and development, production, and sales.

The fair values of the identifiable assets and liabilities of Anhui Precision Biotechnology Co., Ltd., as at the date of acquisition were as follows:

	Fair value recognised on acquisition US$'000
Property, plant and equipment	15
Other intangible assets – patents	3,261
Inventories	520
Trade and notes receivables	49
Prepayments, deposits and other receivables	168
Deferred tax assets	148
Trade payables	(52)
Other payable	(820)
Deferred tax liabilities	(753)
Total identifiable net assets at fair value	2,536
Minority interest	(958)
Goodwill arising on acquisition	1,243
Satisfied by cash	(2,821)

32. BUSINESS COMBINATIONS (continued)

The fair values of the trade receivables and other receivables as at the date of acquisition amounted to US$49,000 and US$168,000, respectively. The gross contractual amounts of trade receivables and other receivables were US$49,000 and US$168,000, respectively.

Included in the goodwill of US$1,243,000 recognised above is technical workforce of the acquiree and the synergy with the Group, which is not recognised separately. Because the technical workforce and synergy is not separable and therefore it does not meet the criteria for recognition as an intangible asset under HKAS 38 Intangible Assets. None of the goodwill recognised is expected to be deductible for income tax purposes.

An analysis of the cash flows on acquisition is as follows:

	US$'000
Cash consideration of the acquisition	(2,821)
Investments in associates	552
Disposal of investments in associates	128
Net cash outflow on acquisition included in cash flows from investing activities	(2,141)

Since the acquisition, Anhui Precision Biotechnology Co., Ltd., contributed US$28,000 to the Group's revenue and US$180,000 to the consolidated loss for the year ended 31 December 2018.

33. RESERVES

The amounts of the Group's reserves and the movements therein for the current and prior years are presented in the consolidated statement of changes in equity on pages 135 to 136 of the financial statements.

In accordance with the Company Law of the PRC, certain subsidiaries of the Group which are domestic enterprises are required to allocate 10% of their profit after tax, as determined in accordance with the relevant PRC accounting standards, to their respective statutory surplus reserves until the reserves reach 50% of their respective registered capital. Subject to certain restrictions set out in the Company Law of the PRC, part of the statutory surplus reserves may be converted to increase share capital, provided that the remaining balance after the capitalisation is not less than 25% of the registered capital.

The exchange fluctuation reserve comprises all foreign exchange differences arising from the translation of the financial statements of operations with a functional currency other than US$.

34. NOTES TO THE CONSOLIDATED STATEMENT OF CASH FLOWS

Changes in liabilities arising from financing activities

	Bank and other loans US$'000
At 1 January 2018	–
Changes from financing cash flows	10,502
At 31 December 2018	10,502

	Dividend payable included in other payables US$'000
At 1 January 2017	2,635
Changes from financing cash flows	(2,635)
At 31 December 2017	–

35. PLEDGE OF ASSETS

Details of the Group's time deposit pledged for the Group's notes payables and interest-bearing bank loans are included in note 24 to the financial statements.

36. OPERATING LEASE COMMITMENTS

The Group leases certain of its production and office properties under operating lease arrangements. Leases for properties are negotiated for terms of one to seven years. At 31 December 2018, the Group had total future minimum lease payments under non-cancellable operating leases falling due as follows:

	2018 US$'000	2017 US$'000
Within one year	2,329	1,359
In the second to fifth years, inclusive	5,446	2,146
After five years	830	28
	8,605	3,533

37. CAPITAL COMMITMENTS

In addition to the operating lease commitments detailed in note 36 above, the Group had the following capital commitments at the end of the year:

	2018	2017
	US$'000	US$'000
Contracted, but not provided for: plant and machinery	**29,909**	32,615

38. RELATED PARTY TRANSACTIONS

Details of the Group's principal related parties are as follows:

Company	Relationship
Chongyang Jinrui Rabbit Breeding Limited ("Jinrui Rabbit")	An entity controlled by an immediate family member of the controlling shareholder
Hunan Gomeet Biotechnology Co., Ltd. ("Gomeet")	Associate
Fengyang Nanjing Biotechnology Co., Ltd. ("Fengyang Nanjing")	Associate
Fengyang Bio HK Limited ("Fengyang HK")	Associate
Maple Bio ("Maple Bio")	Associate

(a) In addition to the transactions detailed elsewhere in these financial statements, the Group had the following transactions with related parties during the year:

	Note	2018	2017
		US$'000	US$'000
Purchases of raw materials from Jinrui Rabbit	(i)	**–**	11
Sales of products to Gomeet	(i)	**39**	137
Sales of products and service to Fengyang Nanjing	(i)	**7**	–
Sales of sundries to Fengyang Nanjing	(i)	**18**	–

Note:

(i) The prices are mutually agreed after taking into account the prevailing market prices.

38. RELATED PARTY TRANSACTIONS (continued)

(b) Outstanding balances with related parties:

The Group had the following significant balance with its related party during the year:

(i) Due from related parties

	2018 US$'000	2017 US$'000
Fengyang Nanjing	**758**	–
Fengyang HK	**1**	–
Maple Bio	**89**	–
Gomeet	**146**	141
	994	141

The balances are unsecured, interest-free and have no fixed terms of repayment.

(c) Compensation of key management personnel of the Group:

	2018 US$'000	2017 US$'000
Short-term employee benefits	**1,709**	1,855
Pension scheme contributions	**33**	30
Equity-settled share option expense	**412**	77
Total compensation paid to key management personnel	**2,154**	1,962

Further details of directors' emoluments are included in note 8 to the financial statements.

The related party transactions in respect of items in note (a) above also constitute connected transactions or continuing connected transactions as defined in Chapter 14A of the Listing Rules.

39. FINANCIAL INSTRUMENTS BY CATEGORY

The carrying amounts of each of the categories of financial instruments as at the end of the reporting period are as follows:

2018

Financial assets

	Financial assets at fair value through profit or loss	Financial assets at fair value through other comprehensive income		
	Held for trading US$'000	Equity investments US$'000	Financial assets at amortised cost US$'000	Total US$'000
Equity investments designated at fair value through other comprehensive income	–	4,949	–	4,949
Trade receivables	–	–	67,843	67,843
Financial assets included in prepayments, other receivables and other assets	–	–	7,882	7,882
Financial assets at fair value through profit or loss	70,056	–	–	70,056
Pledged deposits	–	–	12,688	12,688
Cash and cash equivalents	–	–	494,558	494,558
	70,056	4,949	582,971	657,976

Financial liabilities

	Financial liabilities at amortised cost US$'000	Total US$'000
Trade and bills payables	11,187	11,187
Financial liabilities included in other payables and accruals (note 25)	2,366	2,366
Interest-bearing bank and other borrowings	10,502	10,502
	24,055	24,055

39. FINANCIAL INSTRUMENTS BY CATEGORY (continued)

The carrying amounts of each of the categories of financial instruments as at the end of the reporting period are as follows: (continued)

2017

Financial assets

	Loans and receivables US$'000	Available-for-sale financial assets US$'000	Total US$'000
Available-for-sale investments	–	4,224	4,224
Trade receivables	255,351	–	255,351
Financial assets included in prepayments, other receivables and other assets	8,329	–	8,329
Pledged deposits	392	–	392
Cash and cash equivalents	123,857	–	123,857
	387,929	4,224	392,153

Financial liabilities

	Financial liabilities at amortised cost US$'000
Trade and bills payables	8,154
Financial liabilities included in other payables and accruals (note 25)	22,086
	30,240

40. FAIR VALUE AND FAIR VALUE HIERARCHY OF FINANCIAL INSTRUMENTS

Fair values

Management has assessed that the fair values of cash and cash equivalents, pledged deposits, financial assets included in prepayments, other receivables and other assets, trade receivables, trade and bills payables and financial liabilities included in other payables and accruals, interest-bearing bank and other borrowings approximate to their carrying amounts largely due to the short-term maturities of these instruments.

The Group's finance department headed by the finance manager is responsible for determining the policies and procedures for the fair value measurement of financial instruments. The finance department reports directly to the finance manager. At each reporting date, the finance department analysed the movements in the values of financial instruments and determined the major inputs applied in the valuation. The valuation was reviewed and approved by the finance manager. The valuation process and results are discussed with the directors once a year for annual financial reporting.

The fair values of the financial assets and liabilities are included at the amount at which the instrument could be exchanged in a current transaction between willing parties, other than in a forced or liquidation sale.

The fair values of unlisted equity investments designated at fair value through other comprehensive income, which were previously classified as available-for-sale equity investments, have been estimated using a market-based valuation technique based on assumptions that are not supported by observable market prices or rates. The valuation requires the directors to determine comparable public companies (peers) based on industry, size, leverage and strategy, and calculates an appropriate price multiple, such as enterprise value to earnings before interest, taxes, depreciation and amortisation ("EV/EBITDA") multiple and price to earnings ("P/E") multiple, for each comparable company identified. The multiple is calculated by dividing the enterprise value of the comparable company by an earnings measure. The trading multiple is then discounted for considerations such as illiquidity and size differences between the comparable companies based on company-specific facts and circumstances. The discounted multiple is applied to the corresponding earnings measure of the unlisted equity investments to measure the fair value. The directors believe that the estimated fair values resulting from the valuation technique, which are recorded in the consolidated statement of financial position, and the related changes in fair values, which are recorded in other comprehensive income, are reasonable, and that they were the most appropriate values at the end of the reporting period.

The fair values of the financial assets at fair value through profit or loss have been calculated by discounting the expected future cash flows using rates currently available for instruments with similar terms, credit risk and remaining maturities.

40. FAIR VALUE AND FAIR VALUE HIERARCHY OF FINANCIAL INSTRUMENTS (continued)

Fair value hierarchy

The following tables illustrate the fair value measurement hierarchy of the Group's financial instruments.

Assets measured at fair value:

As at 31 December 2018

	Fair value measurement using			
	Quoted prices in active markets (Level 1) US$'000	Significant observable inputs (Level 2) US$'000	Significant unobservable inputs (Level 3) US$'000	Total US$'000
Equity investments designated at fair value through other comprehensive income	–	4,949	–	4,949
Financial assets at fair value through profit or loss:	–	70,056	–	70,056
	–	75,005	–	75,005

41. FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES

The Group's principal financial instruments comprise cash and short-term deposits. The main purpose of these financial instruments is to raise finance for the Group's operations. The Group has various other financial assets and liabilities such as trade and notes receivables and trade and notes payables, which arise directly from its operations.

The main risks arising from the Group's financial instruments are foreign currency risk, credit risk and liquidity risk. The board of directors reviews and agrees policies for managing each of these risks and they are summarised below.

41. FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES (continued)

Foreign currency risk

The Group has transactional currency exposures. Such exposures arise from sales or purchases by operating units in currencies other than the units' functional currencies. Approximately 6% (2017: 3%) of the Group's sales were denominated in currencies other than the functional currencies of the operating units making the sales, whilst approximately 2% (2017: 2%) of costs were denominated in currencies other than the units' functional currencies.

The following table demonstrates the sensitivity to a reasonably possible change in the RMB exchange rate, with all other variables held constant, of the Group's profit before tax (due to changes in the fair value of monetary assets and liabilities).

	Increase/ (decrease) in the rate of foreign currency	**Increase/ (decrease) in profit before tax**
	%	US$'000
Year ended 31 December 2018		
If US$ strengthens against RMB	**5**	**342**
If US$ weakens against RMB	**(5)**	**(342)**
Year ended 31 December 2017		
If US$ strengthens against RMB	5	584
If US$ weakens against RMB	(5)	(584)

Credit risk

The Group trades only with recognised and creditworthy third parties. It is the Group's policy that all customers who wish to trade on credit terms are subject to credit verification procedures. In addition, receivable balances are monitored on an ongoing basis and the Group's exposure to bad debts is not significant. For transactions that are not denominated in the functional currency of the relevant operating unit, the Group does not offer credit terms without the specific approval of the Head of Credit Control.

41. FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES (continued)

Maximum exposure and year-end staging as at 31 December 2018

The table below shows the credit quality and the maximum exposure to credit risk based on the Group's credit policy, which is mainly based on past due information unless other information is available without undue cost or effort, and year-end staging classification as at 31 December 2018. The amounts presented are gross carrying amounts for financial assets and the exposure to credit risk for the financial guarantee contracts.

	12-month ECLs	Lifetime ECLs			
	Stage 1	Stage 2	Stage 3	Simplified approach	
	US$'000	US$'000	US$'000	US$'000	US$'000
Trade receivables*	–	–	–	67,843	67,843
Financial assets included in prepayments and other receivables					
–Normal**	7,882	–	–	–	7,882
–Doubtful**	–	–	–	–	–
Time deposits					
–not yet past due	12,688	–	–	–	12,688
Cash and cash equivalents					
–not yet past due	494,558	–	–	–	494,558
	515,128	–	–	67,843	582,971

* For trade receivables to which the Group applies the simplified approach for impairment, information based on the provision matrix is disclosed in notes 21 and 22 to the financial statements, respectively.

** The credit quality of the financial assets included in prepayments, other receivables and other assets is considered to be "normal" when they are not past due and there is no information indicating that the financial assets had a significant increase in credit risk since initial recognition. Otherwise, the credit quality of the financial assets is considered to be "doubtful".

41. FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES (continued)

Maximum exposure and year-end staging as at 31 December 2017

The credit risk of the Group's other financial assets, which comprise cash and cash equivalents, pledged short-term deposits, and other receivables, arises from default of the counterparty, with a maximum exposure equal to the carrying amounts of these instruments.

Since the Group trades only with recognised and creditworthy third parties, there is no requirement for collateral. Concentrations of credit risk are managed by customer/counterparty and by geographical region. There are no significant concentrations of credit risk within the Group as the customer bases of the Group's trade receivables are widely dispersed in different regions.

Further quantitative data in respect of the Group's exposure to credit risk arising from trade and other receivables are disclosed in notes 21 and 22 to the financial statements.

Liquidity risk

The Group monitors its risk to a shortage of funds using a recurring liquidity planning tool. This tool considers the maturity of both its financial investments and financial assets (e.g., trade receivables and other financial assets) and projected cash flows from operations.

The maturity profile of the Group's financial liabilities as at the end of the reporting period, based on contractual undiscounted payments, is as follows:

Year ended 31 December 2018

	On demand US$'000	Less than 3 months US$'000	3 to 12 months US$'000	1 to 5 years US$'000	Over 5 years US$'000	Total US$'000
Interest-bearing bank borrowings	–	10,520	–	–	–	10,520
Trade and notes payables	83	11,104	–	–	–	11,187
Other payables and accruals	–	2,366	–	–	–	2,366
	83	23,990	–	–	–	24,073

41. FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES (continued)

Liquidity risk (continued)

Year ended 31 December 2017

	On demand US$'000	Less than 3 months US$'000	3 to 12 months US$'000	1 to 5 years US$'000	Over 5 years US$'000	Total US$'000
Trade and notes payables	517	7,637	–	–	–	8,154
Other payables and accruals	3,120	18,966	–	–	–	22,086
	3,637	26,603	–	–	–	30,240

Capital management

The primary objectives of the Group's capital management are to safeguard the Group's ability to continue as a going concern and to maintain a strong credit rating and healthy capital ratios in order to support its business and maximise shareholders' value.

The Group manages its capital structure and makes adjustments to it in light of changes in economic conditions and the risk characteristics of the underlying assets. To maintain or adjust the capital structure, the Group may adjust the dividend payment to shareholders, return capital to shareholders or issue new shares. The Group is not subject to any externally imposed capital requirements. No changes were made in the objectives, policies or processes for managing capital during the years ended 31 December 2018 and 31 December 2017.

The Group monitors capital using a gearing ratio, which is total liabilities divided by total assets. The gearing ratios as at the end of the years were as follows:

	2018 US$'000	2017 US$'000
Total liabilities	**423,677**	275,945
Total assets	**916,976**	504,264
Gearing ratio	**46.2%**	54.7%

42. STATEMENT OF FINANCIAL POSITION OF THE COMPANY

Information about the statement of financial position of the Company at the end of the reporting period is as follows:

	2018	2017
	US$'000	US$'000
NON-CURRENT ASSETS		
Equity investments designated at fair value through other comprehensive income	4,949	–
Investments in subsidiaries	87,910	80,892
Total non-current assets	92,859	80,892
CURRENT ASSETS		
Trade and notes receivables	–	50
Short term investment	35,030	–
Due from subsidiaries	106,950	4,010
Interest receivable	1,513	–
Prepayments, other receivables and other assets	136	38
Cash and cash equivalents	209,848	51,964
Total current assets	353,477	56,062
CURRENT LIABILITIES		
Due to subsidiaries	65,420	9,019
Trade and notes payables	21	–
Other payables and accruals	403	216
Total current liabilities	65,844	9,235
NET CURRENT ASSETS	287,633	46,827
TOTAL ASSETS LESS CURRENT LIABILITIES	380,492	127,719
Net assets	380,492	127,719
EQUITY		
Share capital	1,836	1,734
Reserves (note)	378,656	125,985
Total equity	380,492	127,719

42. STATEMENT OF FINANCIAL POSITION OF THE COMPANY (continued)

Note:

A summary of the Company's reserves is as follows:

	Share premium US$000	Share option reserve US$000	Fair value reserve US$'000	Accumulated (losses)/profit US$'000	Total US$'000
At 1 January 2017	118,051	9,469	–	(6,468)	121,052
Total comprehensive income for the year	–	–	–	1,864	1,864
Share issuance expenses	4,237	(1,344)	–	–	2,893
Dividend distribution	–	–	–	(2,635)	(2,635)
Equity-settled share option arrangements	–	2,811	–	–	2,811
At 31 December 2017 and 1 January 2018	**122,288**	**10,936**	**–**	**(7,239)**	**125,985**
Total comprehensive loss for the year	**–**	**–**	**(11)**	**2,139**	**2,128**
Share issuance expenses	**3,479**	**(833)**	**–**	**–**	**2,646**
Issue of shares under the share placing option	**251,218**	**–**	**–**	**–**	**251,218**
Shares repurchased	**(11,469)**	**–**	**–**	**–**	**(11,469)**
Equity-settled share option arrangements	**–**	**8,148**	**–**	**–**	**8,148**
At 31 December 2018	**365,516**	**18,251**	**(11)**	**(5,100)**	**378,656**

The share option reserve comprises the fair value of share options granted which are yet to be exercised, as further explained in the accounting policy for share-based payments in note 2.4 to the financial statements. The amount will either be transferred to the share premium account when the related options are exercised, or be transferred to retained profits should the related options expire or be forfeited.

43. APPROVAL OF THE FINANCIAL STATEMENTS

The financial statements were approved and authorised for issue by the board of directors on 22 March 2019.

GENSCRIPT BIOTECH CORPORATION

金斯瑞生物科技股份有限公司*