



# 康宁杰瑞

ALPHAMAB ONCOLOGY

ALPHAMAB ONCOLOGY

康寧傑瑞生物製藥

(Incorporated in the Cayman Islands with limited liability)

Stock code : 9966

## 2019

ENVIRONMENTAL,  
SOCIAL AND  
GOVERNANCE  
REPORT



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# Environmental, Social and Governance Report

## About the Report

- Reporting period and scope  
The reporting period of the *Environmental, Social and Governance Report* (hereinafter referred to as “the Report”) is from January 1, 2019 to December 31, 2019 (hereinafter referred to as “2019”). The disclosure scope of the Report is consistent with that of the 2019 Annual Report of Alphamab Oncology. For the convenience of expressing and reading, “Alphamab Oncology” is also referred to as “we”, “our”, “us”, or “the Company” in this report.
- Reference  
This Report is prepared with reference to Appendix 27 of the *Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited*, namely the *Environmental, Social and Governance Reporting Guide* (hereinafter referred to as “ESG Reporting Guide” or “the Guide”), and its major amendments. The scope and contents of this report are also in line with the disclosure liability under the “comply or explain” provisions set out in the Guide. Please go to the last section of this report – “Appendix II – Index of *Environmental, Social and Governance Reporting Guide* from The Stock Exchange of Hong Kong Limited” for quick reference.
- Source of information  
The qualitative and quantitative information of the Report is from the public information, internal documents and relevant statistics of Alphamab Oncology.

## About Alphamab Oncology

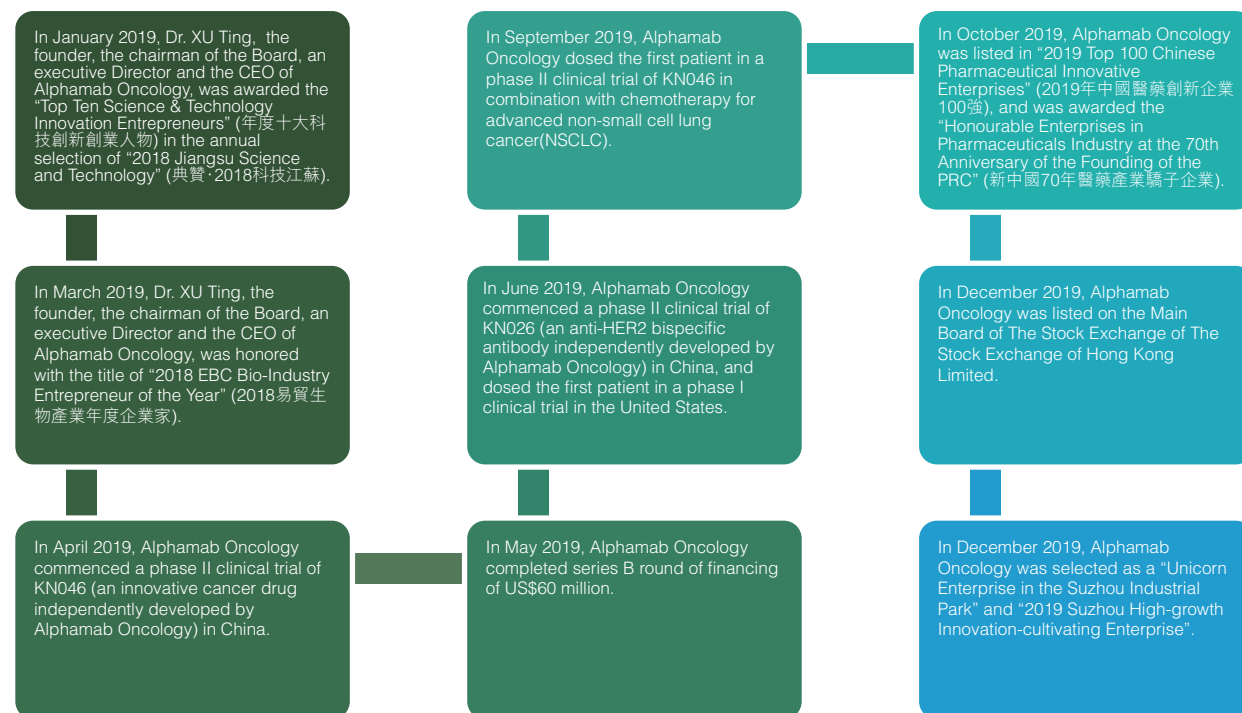
### Company overview

Alphamab Oncology (Stock code: 9966) is a biopharmaceutical company dedicated to the research and development as well as the manufacturing and commercialization of innovative macromolecular drugs for cancer treatment. On December 12, 2019, the Company was listed on the Main Board of The Stock Exchange of Hong Kong Limited.

Alphamab Oncology has fully integrated R&D and manufacturing platforms for bispecific antibody and protein engineering. The highly differentiated product pipelines of the Company are composed of eight drug candidates for tumors, six of which are world-leading bispecific antibodies, and four are in phase I - III clinical trial development in China, the United States, and Japan.

The Company has multiple technology platforms with independent intellectual property rights such as heterodimer and mixed antibody platforms, as well as mature mass production capacity in line with the *Good Manufacturing Practices for Drugs* (China), the *Current Good Manufacturing Practice* (the United States) and the Good Manufacturing Practice guidelines of the European Union. Based on its internationally advanced protein engineering platforms, the Company is devoted to developing next-generation new macromolecular drugs with multiple functions to benefit patients in China and the rest of the world.

## Events of 2019



# Environmental, Social and Governance Report

## Management approach

### ESG management

The Board of Directors of the Company (the “Board”) takes a leading role in ESG management. It monitors its ESG practices and takes full responsibility for ESG strategy-making as well as ESG reporting. Appointed by the Board, our business functions identify ESG liabilities and assess their importance to business and stakeholders by reviewing our operations and conducting internal discussions. Management of the Company regularly reviews ESG liability risk management and internal monitoring systems and confirms their effectiveness to the Board.

### Communication with stakeholders

According to its business characteristics, the Company identifies the major stakeholders as shareholders and investors, employees, potential customers, suppliers, competitors, government and regulators as well as communities. The Company values the communication with stakeholders and gets to know the interests and appeals of stakeholders through various targeted communication channels and responds effectively.

Stakeholders	Expectations and requirements	Means of communication
Shareholder and investor	<ul style="list-style-type: none"> <li>Shareholders’ rights and interests protection</li> <li>Information disclosure and transparency</li> <li>Corporate governance perfection</li> <li>Compliance in operation</li> </ul>	<ul style="list-style-type: none"> <li>General meeting of shareholders</li> <li>Announcement and press release</li> <li>Communication mechanism for investor</li> </ul>
Employee	<ul style="list-style-type: none"> <li>Employee rights and welfare</li> <li>Employee training and development</li> <li>Occupational health and safety</li> </ul>	<ul style="list-style-type: none"> <li>Employee activities</li> <li>Employee training</li> <li>Communication channels for employee</li> </ul>
Potential customer	<ul style="list-style-type: none"> <li>Product quality guarantee</li> <li>R&amp;D and innovation</li> <li>Intellectual property protection</li> <li>Customer privacy and rights protection</li> </ul>	<ul style="list-style-type: none"> <li>Industry forum</li> <li>Customer service and complaint handling procedures</li> </ul>
Supplier	<ul style="list-style-type: none"> <li>Standardized procurement management</li> </ul>	<ul style="list-style-type: none"> <li>Supplier assess and evaluation</li> <li>Supplier audit</li> </ul>
Competitor	<ul style="list-style-type: none"> <li>Fair competition</li> <li>Cooperative development</li> </ul>	<ul style="list-style-type: none"> <li>Industry communication</li> <li>Strategic cooperation projects</li> </ul>
Government and regulator	<ul style="list-style-type: none"> <li>Compliance in operation</li> <li>Industry development promotion</li> <li>Environmental protection</li> </ul>	<ul style="list-style-type: none"> <li>Institution investigation</li> <li>Policy implementation</li> <li>Information disclosure</li> </ul>
Community	<ul style="list-style-type: none"> <li>Environmental protection</li> <li>Community welfare</li> </ul>	<ul style="list-style-type: none"> <li>Community activities</li> </ul>

### Case: Establish and improve investor communication mechanism

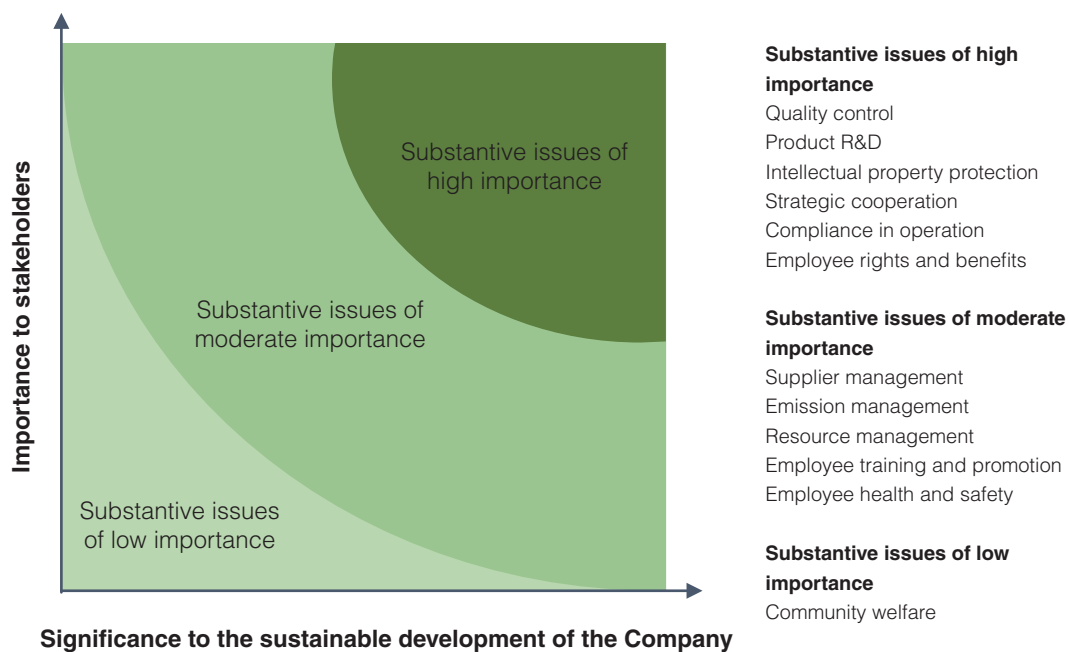
In order to keep investors informed of the important matters concerning strategy, operations, business performance, and other aspects of the Company in a more comprehensive and intuitive way, we actively establish and improve our investor communication mechanism, and constantly enhance communication with investors through announcements and press releases, investment summits, global roadshows, online and offline investor meetings, investor site visits as well as other channels.

In 2019, we participated in numerous investment summits, including the 37th Annual J.P. Morgan Healthcare Conference, Morgan Stanley 17th Annual Global Healthcare Conference, and Jefferies 2019 Healthcare Conference, and held in-depth discussions with domestic and foreign investors on the current status of the Company and industry prospects. In addition, we held global roadshows in the United States, the United Kingdom, mainland China, Hong Kong, and other places, communicated with more than 100 institutional investors. The Company's R&D strength, innovation ability, product pipeline, and platform building were highly recognized by the investors.

In addition to the abovementioned communication channels for investors, we also set up an investor relations page on our official website, which serves as a window for investors to get to know the Company, and thus improves the transparency of information disclosure and reduces the risk of information asymmetry.

## Analysis of substantive issues

Through exchanges and communication with stakeholders and in combination with industry hot spots and counterparts benchmarking, we have identified the substantive issues for Alphamab Oncology in 2019 in accordance with the *ESG Reporting Guide*, which is listed on the Appendix 27 of the *Rules Governing the Listing of Securities on the Stock Exchange of Hong Kong Limited*. We prioritized the substantive issues based on their importance to the sustainable development of the Company and to stakeholders. This Report provides disclosure and explanations about each substantive issue.



## Responsible operation

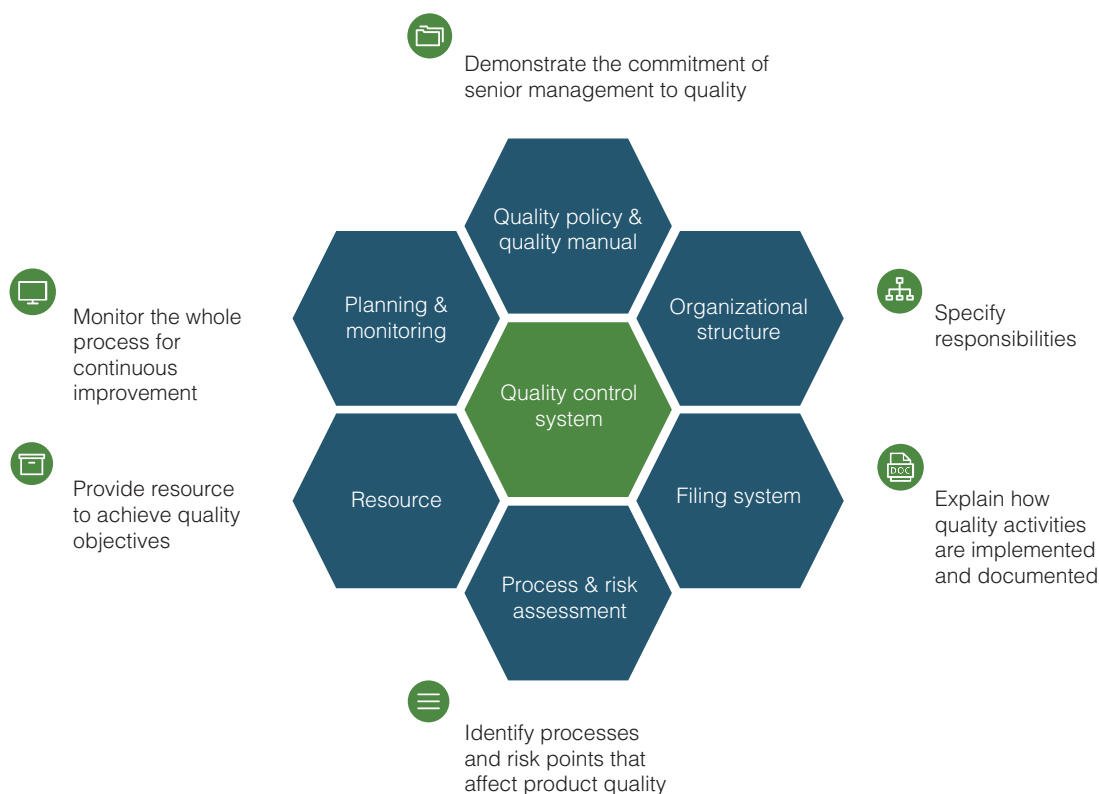
During business operations, Alphamab Oncology actively fulfills its responsibilities to all stakeholders, optimizes supply chain management, and strictly controls product quality while meeting regulatory requirements. The Company constantly improves its operational management and control level to maintain sustainable development.

### Quality control

As a pharmaceutical company, we always believe that the long-term development of the Company can only be promoted by improving quality awareness and strengthening quality control. The Company takes quality as one of its core values, constantly improves its quality control and supervision mechanism, as well as implements high-level quality requirements, so as to provide the society with products of excellent quality, safety and reliability.

- #### Quality control system

We strictly abide by the *Pharmaceutical Administration Law of the People's Republic of China*, the *Implementing Regulations of the Pharmaceutical Administration Law of the People's Republic of China*, *China's Good Manufacturing Practices for Drugs*, EU's Good Manufacturing Practice guidelines, FDA's *Current Good Manufacturing Practice*, ICH Guidelines, as well as other domestic and foreign laws and regulations. Based on these laws and regulations, the Company established a sound quality control system according to its own characteristics to guide effective implementation of quality control activities. The quality control system of Alphamab Oncology includes six elements, covering the entire life cycle of the drug as follows:





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The Company systematically planned and described the quality control process and methods from the perspectives of document management, resource management, product realization and continuous improvement in its *Quality Manual*, and formulated the *Quality Control System* to ensure that the requirements of its quality control system are followed by quality related departments. In 2019, we focused on sorting out quality related system documents, and updated standard operation specifications such as the *Product Release Procedures*, the *Management Procedures for Nonconforming Products*, and the *Management Procedures for Corrective and Preventive Measures* to standardize product verification and defect rectification process. We set up *Complaint Management Procedure* to timely and effectively deal with product complaints events. In terms of product recall, we established internal *Management Process of Product Recall* according to the *Drug Recall Management Measures and the Good Manufacturing Practices for Drugs* issued by China Food and Drug Administration (CFDA), so as to ensure timely drug recall as per the relevant procedures when there is any quality problem or potential safety hazards and thereby reduce the occurrence of health hazards. Currently, there is no product complaint or recall since we have no products for commercial sale so far. As of December 31, 2019, we have established 81 documents concerning quality assurance management and 495 documents regarding quality control management and operation.

We highly value quality control through the entire life cycle of drugs, although we have not yet started commercial production and sales, we have established the corresponding quality control standards and operating procedures for drug development, supply chain, production and transportation, so as to guarantee the quality of drugs. For quality control in the production process, we mainly focus on the quality of raw materials, manufacturing process and finished goods. We select qualified suppliers of raw materials, conduct regular verification on facilities and equipment, and review manufacturing related documents (including batch records and test results of quality control) to ensure that the products are in line with corresponding specifications. With respect to key program parameters and quality attributes, we closely monitor the results and conduct two rounds of checks by different professionals. We also monitor the manufacturing environment, and design, build and operate manufacturing facilities to meet applicable regulatory requirements and strict GMP standards.

We continuously improve the quality control system through internal and external quality audits. We carry out quality control self-inspection in key areas such as plant facilities and equipment, production management, quality control, laboratory management, clinical trials, materials and transportation management each year. In 2019, we conducted 8 internal quality audits and accepted 2 external quality audits in total. In October 2019, the Company passed the on-site inspection conducted by Jiangsu Medical Products Administration and obtained a Pharmaceutical Production License. In December 2019, the Company accepted an on-site inspection by qualified persons (as defined by the EU) and officially passed the inspection in February 2020. The good results of the two external quality audits marks that the Company has established relatively thorough production, storage system, and quality control system, which lays a solid foundation for the global clinical trial drug supply and subsequent commercial production.

- **Quality training**

We firmly believe that product quality depends on the daily routine of each employee, so we organize and conduct quality trainings to strengthen the quality awareness to all employees and consistently improve product quality. We developed the *GxP Training Management Procedures*, determined training courses according to the requirements of each position, and ensure that employees can keep up with the latest quality principles and have a better understanding of standard operating norms through the trainings at company level, basic trainings of departments, general trainings on quality, trainings on quality regulations, job skills trainings, and other trainings.

In 2019, we conducted more than 10 quality trainings at company level, including special GMP trainings and GCP trainings. All employees of the Company participated in the trainings and were tested, and the passing rate was 100% for all tests.

### Supplier management

The development of an enterprise is inseparable from the support of products and services provided by suppliers. The Company has established good relationships with suppliers, and apart from improving its supplier management mechanism, it constantly integrates and optimizes its supplier network.

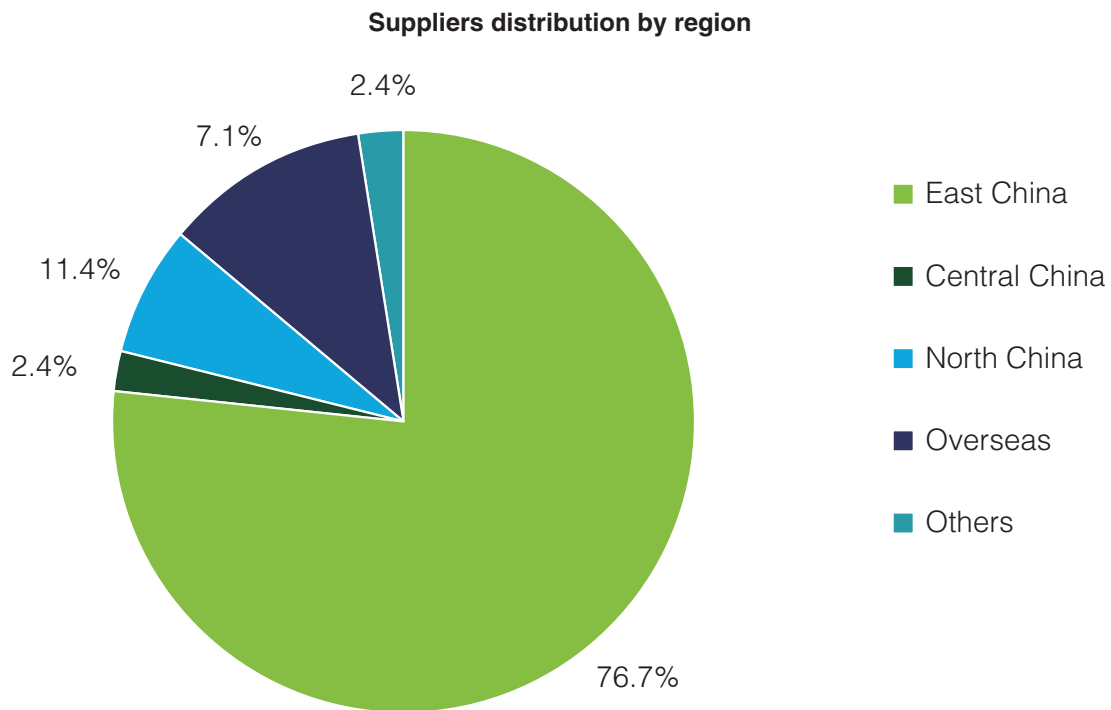
Alphamab Oncology formulated and strictly follows the *Procurement Bidding Management Process*, the *Procurement and Contract Management Process*, and established the *Entrusted Production Management Procedures*, the *Management Procedures for Third-Party GMP Service Providers*, and the *Management Procedures for Material Suppliers* to manage different kinds of suppliers. When cooperating with suppliers, we fully protect the legitimate interests of suppliers while meeting our own requirements by applying standardized and normalized management procedures concerning procurement and supplier.

The Company established a supplier management team, which is jointly responsible for supplier selection, contract signing, supervision and management by all relevant departments. All supplier selection processes are documented and properly approved. For suppliers involved with pharmaceutical R&D or production, the Company strictly complies with the relevant standards and requirements. It conducts qualification certification for potential suppliers and arranges on-site audit or paper audit as the case may be. Only after the qualification is confirmed by audit to meet the national requirements will the Company incorporate the supplier into its qualified supplier system. In addition, we sign quality agreements with suppliers to define their responsibilities and to ensure that their product or service quality meets the corresponding requirements. We also established the *Supplier Audit Management Procedure*, which specifies the types and procedures of supplier audit. In 2019, we conducted 46 quality audits of external suppliers in total.

## Environmental, Social and Governance Report

In addition, Alphamab Oncology restricts suppliers with higher standard requirements. It continuously strengthens the environmental and social risk management of suppliers and urges them to pass ISO14000 environmental management system certifications.

Currently, we cooperate with an aggregate of 411 suppliers, mainly from East China. The suppliers' geographical distribution is as below:



### Compliance in operation

We always take compliance as the basis of production and management. We strictly follow business ethics and standardize our operation process through special audits to ensure compliance operation.

- ***Business ethics***

To create a fair, impartial and open business environment, we strictly abide by the rules and regulations such as the *Anti-Unfair Competition Law of the People's Republic of China*, the *Interim Regulations of the State Administration for Industry and Commerce on Prohibition of Commercial Bribery* and established the *Anti-fraud and Reporting Management System*, the *Anti-bribery and Anti-Corruption Management System*. For gifts and hospitality expenses in the Company, we have developed a series of standards and practice guidelines and strictly follow them. We also incorporated anti-fraud, anti-bribery and anti-corruption management into our *Employee Handbook* and enhance the compliance awareness of all employees by sending them risk warning emails and providing anti-fraud trainings. In July 2019, we conducted anti-fraud training for all employees and gave special explanation and education on fraud prevention in high-risk links. Management and employees in key positions are required to participate in the training while other employees can choose to participate. The training enhanced employees' understanding of fraud and further enhanced their compliance awareness.

We have set up reporting mailboxes and hotlines as well as other open supervision channels, so as to timely investigate and correct the non-compliance behaviors. For the reporting information received, an investigation team led by the internal control and audit department will be established by the relevant departments to handle the information according to the relevant procedure and timely publish the investigation result. The Company strictly prohibits retaliatory actions against those who report in good faith or cooperate with the investigation and takes corresponding protective measures for those whistleblowers. In 2019, the Company had no reported corruption, bribery, extortion, fraud, or money laundering, nor did it have any litigation caused by such cases.

- ***Special audits***

We attach great importance to the compliance of business operation and take it as the foundation for the sustainable development of the Company. We give full play to the supervisory role of audits by conducting internal audits to identify management defects and optimize management processes. In 2019, our internal control and audit department carried out special audits in important areas such as financial reporting, monetary funds and procurement management to identify deficiencies and oversee the implementation of corrective actions. Through the special audits, we continuously guard against business risks and improve our compliance level.

## Environmental, Social and Governance Report

### R&D and innovation

With its leading drug discovery and development capability, a fully integrated R&D and manufacturing platform, as well as the leadership of an experienced management team and R&D team, Alphamab Oncology is committed to providing world-class innovative therapeutic biologics for patients across the world.

#### R&D capability

- ***R&D team and investment***

The Company has a powerful R&D team, led by our founder Dr. XU Ting. Dr. Xu has many years of R&D experience and has contributed to more than 100 patents and patent applications. In addition, we constantly strengthen our R&D team building, attract and retain R&D talent by enhancing the rationality of project planning, offering competitive remuneration and equity incentives as well as other ways. As of December 31, 2019, our R&D team personnel totaled 71, accounting for 31.7% of all employees. In order to ensure and enhance product development capability, we continuously increase investment in product innovation and R&D. In 2019, the R&D expenditure of Alphamab Oncology reached about RMB167 million, up by 154% on a year-on-year basis.

- ***Technology platform***

Based on a full understanding of the structure and function of antibodies and proteins, together with bioinformatics analysis and forecasts, our R&D team successfully developed technology platforms for innovative oncology drugs, namely bispecific platform called CRIB (Charge Repulsion Induced Bispecific) and Mix-mAb platform called CRAM (Charge Repulsion induced Antibody Mixture), which have laid a solid foundation for R&D and innovation.

1. Bispecific antibody development platform (CRIB): Compared with monospecific antibodies, bispecific antibodies can enhance tumor specific targeting and efficacy, but they were accompanied by technical challenges of unstable quality and low yield. Through years of research, we have successfully developed a world-leading Fc-based heterodimer bispecific platform called CRIB (Charge Repulsion Induced Bispecific) to overcome CMC (Chemistry, Manufacturing and Control) issues for Fc based bispecifics.
2. Mixed antibody development platform (CRAM): It is a leading technology platform independently developed by the Company. The platform enables the Company to clone and produce a variety of antibody molecules based on a single cell. Compared with other technologies, CRAM platform can effectively reduce R&D cost and production cost, and greatly ease the medical cost burden on patients.

- ***R&D progress***

The Company's strong drug discovery and R&D capability provides strong support for sustainable development. Based on our proprietary innovative technology platforms we have developed a series of product pipelines composed of eight oncology drug candidates, including four in clinical stage. These product pipelines are highly differentiated and have strong global competitiveness. In 2019, the Company made numerous R&D breakthroughs.

KN046, the world's first recombinant humanized PD-L1/CTLA-4 bispecific antibody, commenced a phase II clinical trial in China. And the clinical trial on the treatment of advanced non-small cell lung cancer (NSCLC), advanced unresectable or metastatic esophageal squamous cell carcinoma (ESCC), and triple negative breast cancer (TNBC) has been carried out in succession.

As a sub-project of the National Science and Technology Major Project "Research and Development of Innovative and New Antibody Drugs and System Building of the Key Innovative Technologies", the project of KN026, an anti-HER2 bispecific antibody, commenced a phase II clinical trial for gastric cancer and gastroesophageal junction cancer in China and dosed the first patient in a phase I clinical trial in the United States.

KN019, a recombinant human CTLA-4-Fc fusion protein injection, dosed the first patient in a phase II clinical trial for the treatment of active rheumatoid arthritis caused by inadequate response to methotrexate (MTX).

The R&D and Industrialization Project of KN035, a PD-L1 monoclonal antibody injection, was jointly initiated by the Science and Technology Department of Jiangsu Province, Suzhou Science and Technology Bureau and the Science and Technology Bureau of Suzhou Industrial Park, and received great support from the "Special Project on the Conversion of Scientific and Technological Achievements in Jiangsu Province" in 2019.

Q Case: ASCO, CSCO academic conferences

In 2019, during the annual meeting of the American Society of Clinical Oncology (ASCO), the largest and highest-level academic conference on clinical oncology in the world, we published the current achievement of KN046's phase I clinical research in Australia. KN046 is the world's first recombinant humanized PD-L1/CTLA-4 bispecific antibody independently developed by the Company. Current research shows that KN046 is safe, well-tolerated, and effective, which has attracted worldwide attention from physicians and researchers in oncology and other related fields.



Figure: Poster presentation at ASCO

In addition, the abstracts of our two clinical studies of PD-L1/CTLA-4 bispecific antibody (KN046) were accepted by the 2019 annual meeting of the Chinese Society of Clinical Oncology (CSCO), and the latest research data were presented in the forms of verbal presentation and poster presentation respectively at the meeting.

Our research results were presented at two high-level academic conferences in the oncology field, and that affirmed our solid R&D capability. We will stay true to the original aspiration of "Innovative Medicine for a Better Life", and constantly explore and break new ground in the tumor immunotherapy field to benefit more patients and better contribute to society.



Figure: Verbal presentation at CSCO

- **Respect R&D ethics**

Alphamab Oncology always abides by morality and ethics in clinical research and animal experiments. We strictly follow medical ethics principles such as the *Declaration of Helsinki and China's Good Clinical Practice for Drug Trials* and pursue medical innovation and development on the premise of respecting ethical standards. During clinical trials, we pay close attention to the experience of the subjects and have established a reporting and handling mechanism to timely and effectively respond to adverse reactions in the process, so as to effectively protect the interests of patients.

### Cost advantage

We focus on the continuous improvement of production process and reduce costs on the premise of ensuring compliance operation and good quality, in a bid to improve the affordability of drugs and benefit more patients. For example, we utilize self-developed culture media to culture cells. Compared with commercially available culture media, the protein expression of self-developed culture media can be increased by 1.5 to 2 times, and the monomial cost of each batch can be reduced by more than 50%. The purification column adopts ion-exchange compound packing to replace affinity packing, which will not affect the purity and yield of purified protein drugs but will extend the service life of the column by 1.5 times or more and reduce the monomial cost of the column packing by 3 to 5 times.

### Strategic cooperation

Capturing future development trends, jointly promoting collaborative innovation and strengthening strategic cooperation are the keys for us to promote the industry's development and the transformation of achievement as well as to realize shared growth of all parties. In the past cooperation, our R&D ability and manufacturing capability have been fully recognized. Based on our strengths and advantages, we reached a strategic cooperation with HEC Research Institute in January 2019 to jointly develop a combination therapy of PD-L1/CTLA-4 (KN046) and Nintedanib Tosylate (CT053) for the treatment of the hepatocellular carcinoma (HCC), and collaborate on its clinical development and commercialization in mainland China. In December 2019, we also signed cooperation agreements with 3D Medicines (Beijing) Co., Ltd. and TRACON Pharmaceuticals, Inc. to advance the clinical development and commercialization of KN035, a next-generation PD-L1 antibody, to treat soft tissue sarcoma in North America. We have also entered into a cooperation agreement with Simcere and 3D Medicines (Beijing) Co., Ltd. on March 30, 2020 for the marketing and commercialization of KN035 for oncology indications in Mainland China.



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### Intellectual property

We always attach great importance to the protection of intellectual property and have adopted various measures to ensure confidentiality through the entire life cycle of a project. We abide by the laws and regulations including the *Intellectual Property Law of the People's Republic of China*, the *Patent Law of the People's Republic of China* and the *Trademark Law of the People's Republic of China*. Based on the *Administrative Regulations on Enterprise Intellectual Property* and other relevant national standards, we have established the *Management System on Intellectual Property* which standardizes the management of intellectual property through the establishment, implementation, maintenance and continuous improvement of our intellectual property management system. Our early R&D department, the centralized management department of the Company's intellectual property, is mainly responsible for the assessment and review of the contents related to intellectual property, as well as the coordination with intellectual property agencies for the dynamic management of patents and related matters. We utilize credible databases to search and analyze intellectual property, and coordinate with intellectual property agencies to track and preserve our existing patents by creating management files, backing up relevant documents and taking other measures. In addition, in order to strengthen employees' awareness of IP protection, we have formulated the *Administrative Measures for Information Security*, strictly implemented it throughout the Company and signed confidentiality agreements with key employees.

### Green development

Alphamab Oncology abides by the *Environmental Protection Law of the People's Republic of China*, the *Energy Conservation Law of the People's Republic of China*, the *Regulations of Jiangsu Province on Environmental Protection* as well as other national and local laws and regulations, in an effort to proactively promote energy conservation and emission reduction and therefore improve resources utilization efficiency. The Company advocates eco-friendly ways of production and life so as to help build a green homeland.

### Energy use

During our daily operation, we put a high priority on energy saving and cyclic utilization, aiming to maximize output with minimal energy consumption. The main energy resources we consume in operation are electricity, natural gas, and gasoline. Energy use is the main cause of greenhouse gases. In 2019, we consumed 1,134.70 MWh of electricity, 352.24 MWh of natural gas and 14.88 MWh of gasoline. The direct greenhouse gas emissions and the indirect greenhouse gas emissions we discharged totaled 75.81 tons and 798.26 tons respectively.

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During the production process, we continue to improve our production technologies, processes and devices to boost energy efficiency in production. We adopt internationally advanced separation and purification technology as well as sophisticated equipment in line with GMP requirements to improve product quality and productivity while reducing energy consumption. We regularly maintain production equipment and replace energy-intensive components. In addition, we set up all utility facilities that are closely related to production in warehouses and engineering buildings, which simultaneously shortens the distance between utility pipelines, facilitates management and conserves energy. Energy-saving management of the air-conditioning system used in production workshops is also strengthened from multiple perspectives: (1) reasonably divide and distribute the purification area; (2) adopt air ducts and piping made of materials with good insulation; (3) apply appropriate temperature, humidity and differential pressure in the purification area; (4) use variable frequency air supply regulator to ensure energy conservation and safety. All the air-conditioning systems adopt intelligent controllers to enable the air conditioners to run in the most economical way throughout the year.

In our daily work, we actively take energy-conservation measures and encourage employees to improve energy conservation awareness, so as to create a “green office” atmosphere. In the work area, we put up placards to help employees form the habit of “turn off lights and keep doors closed when leaving”, and stipulate that the air-conditioner’s temperature shall be set to no lower than 26°C in summer and no higher than 24°C in winter, so as to reduce unnecessary power loss caused by lights and air conditioners.

### Water resource management

We start with the details to reduce the use and consumption of water resources. Apart from strengthening education on water-saving for employees and choosing water-saving faucets, we also realized the recycling of water resources and saved a lot of water by designing a condensate collection and reuse system, building a sewage treatment station, as well as other ways. Our condensate collection and reuse system can save 13,608 tons of water every year, and the sewage treatment station can generate 168 tons of recycled water every day after it is officially put into operation.



Figure: Condensate water recovery system

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## Emission management

Alphamab Oncology always pays attention to the emission of wastewater and exhaust gas, as well as monitoring and recording of hazardous waste transfer and disposal, so as to make sure the discharge meets the corresponding standards and the transfer complies with relevant regulations. In addition, we took various measures to reduce emissions and to minimize pollution to the surrounding environment.

- **Wastewater**

We strictly abide by the relevant provisions of the *Law of the People's Republic of China on the Prevention and Control of Water Pollution*, the *Regulations on Administration of the Taihu Lake Basin* and the *Regulation of Jiangsu Province on Prevention and Treatment of Water Pollution in the Tai Lake*. The wastewater produced by the Company is discharged after treatment in accordance with relevant regulations.

The wastewater generated during our operation mainly includes production wastewater and domestic sewage. The drainage system adopts systems which divert wastewater from clean water and shunt rainwater and sewage. All production wastewater containing nitrogen and phosphorus is reused after being treated in the plant wastewater treatment station, rather than being discharged. Domestic sewage is discharged into the sewage pipe network in the park through the plant's general emission outlet. The wastewater generated during production base construction is handled by the construction enterprise according to relevant regulations, and the construction wastewater and domestic sewage generated by construction personnel will impose no impact on the surrounding water environment.

### Q Case: Wastewater treatment station

In order to achieve zero emissions for wastewater production, the Company invested more than RMB9 million to build a wastewater treatment station in 2019. The wastewater treatment station mainly uses the “flocculation-sedimentation + A/O/A + MBR + RO + evaporation + centrifugation” process to treat wastewater containing nitrogen and phosphorus, so that all the wastewater can be reused to the washing tower and recirculating cooling water system after treatment. The completion of this environment-friendly project enables the Company to reduce water consumption while protecting the ecology of the park, bringing significant economic, social and environmental benefits.



Figure: Wastewater treatment station

Notes:

- (1) A/O/A: Anaerobic sludge/Aerobic/Anaerobic sludge treatment, known as Biological Treatment System.
- (2) MBR: Membrane Bio-Reactor System, known as Ultrafiltration Membrane system.
- (3) RO: Reverse Osmosis Treatment System, known as Reverse Osmosis System.

- ***Exhaust gas***

Our discharge process of exhaust gas strictly follows the *Law of the People's Republic of China on the Prevention and Control of Atmospheric Pollution*, the *Regulations of Jiangsu Province on the Prevention and Control of Atmospheric Pollution*, as well as other national and local laws and regulations. In 2019, the exhaust gases of the Company, which mainly come from laboratories and gas-fired boilers, were collected and treated in an orderly way to reduce the impact of fugitive emissions on the environment.

The exhaust gases generated during our operation are very limited and their emissions are greatly reduced through targeted treatment. The majority of the experimental equipment we choose are sealed, and the transporting method is closed and automatic, so that we can reduce the generation and emission of exhaust gas from the very beginning. The up-to-standard discharge of exhaust gases generated in laboratories is realized through activated carbon adsorption in the adsorption equipment of the exhaust gas treatment center; and high altitude discharge is the choice for exhaust gases generated by gas-fired boilers after they were proved to meet the corresponding emission standard. We also grow plants which have natural strong air purification and anti-pollution functions in the factory to effectively isolate and purify the air.



Figure: Exhaust gas disposal center

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- ***Solid waste***

The solid waste we generated is mainly divided into hazardous waste and non-hazardous waste. Different kinds of waste are collected separately so that they have very limited impact on the environment.

Hazardous waste is produced in the production process and includes filters, filter residue, and disposable consumables. We put all kinds of hazardous waste in the Company's hazardous waste warehouse, store them according to the *Standard for Pollution Control on Hazardous Waste Storage*, and entrust waste disposal entities to ship them out regularly. In 2019, the hazardous waste we produced was about 1 ton.

Non-hazardous waste mainly includes construction waste and household waste. In 2019, we produced about 44 tons of household waste and 400 tons of construction waste. Household waste is stored in the factory garbage disposal and cleaned and transported regularly by the sanitation department. Construction waste is disposed after classification: certain construction waste is recycled, and the rest is treated and disposed in accordance with the general provisions of the municipal government.



Figure: Hazardous waste warehouse

## Talent-oriented philosophy

Alphamab Oncology strictly follows the laws and regulations such as the *Labor Law of the People's Republic of China*, the *Labor Contract Law of the People's Republic of China* and the *Employment Promotion Law of the People's Republic of China*. Upholding the "talent-oriented" philosophy, the Company commits not to use child, forced, bonded or indentured labor, and ensures the compliance in aspects of dismissals, working hours and vacations, etc. The Company strives to inspire employees with shared vision, unite them through democratic management and warm them with genuine care.

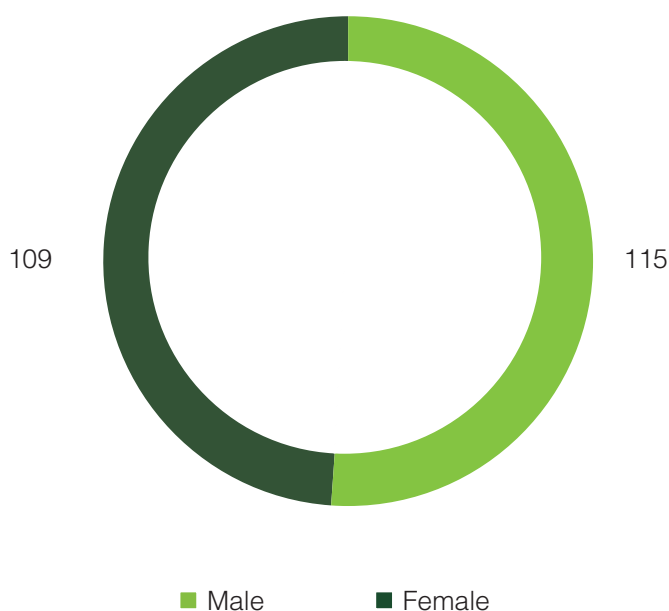
## Employee rights and benefits

We consider our employees as the most valuable part of Alphamab Oncology. We strive to safeguard the legitimate rights and interests of employees and proactively respond to the appeals and demands proposed by our employees through all channels, in an effort to achieve shared growth with employees.

- **Equal employment**

In order to ensure a standardized and normalized recruitment process, the Company formulated the *Recruitment Management Policy*, the *Labor Contract Management Policy* and *Employee Handbook* to regulate issues regarding employee recruitment, job levelling, salary scaling and hiring. In respect of recruitment, promotion, compensation and training, we do not discriminate on the grounds of gender, age, race, religion, marital status, physical disability, etc., ensuring all employees receive equal treatment and thereby jointly promote the sustainable development of the Company.

### Employee divided by gender



## Environmental, Social and Governance Report

- ***Compensation & benefits***

Based on the principle of “justice goal, transparent process, and fair outcome”, Alphamab Oncology established the Company’s *Performance Management Policy and Compensation Management Policy* to increase employees’ enthusiasm for working at the policy level and to achieve the long-term goal of having employees grow together with the Company. The Company conducts performance evaluations twice a year and adjusts annual salaries and pays year-end bonus according to the evaluation results. In addition, it grants outstanding employees with stock options. As of December 31, 2019, about 37% of the employees owned stock options of the Company.

The Company strictly complies with the *Social Insurance Law of the People’s Republic of China* and fulfils relevant responsibilities and obligations, paying social insurances for employees on time. In addition, it buys additional commercial health insurance and casualty insurance for employees as well as provides them welfare projects such as high-temperature, meal, transportation, communication and post allowance, holiday gifts, medical examinations and throws an annual party.

- ***Employee communication channels***

In order to improve work efficiency, help employees to address practical problems and create a great corporate culture, we continuously enhance effective communication between employees and management, and build channels to collect reasonable suggestions. The Company holds regular all-hands meetings with the president’s presence, and employees may choose to join on-site or online to report their latest progress of work and achievements. In addition, employees may give advice through suggestion boxes or by e-mail, and the human resources department will collect relevant information, give feedback and take action. The Company also provides incentives for those who offered excellent suggestions. The president will give awards to them to encourage more employees to provide more and better suggestions in daily work, thereby helping the Company to develop rapidly. As of December 31, 2019, advice collection has lasted nearly nine months. During which time, employees actively put forward rational suggestions, and statistics show that 39% of the suggestions were adopted by the Company.

### **Employee care**

We value employees’ cultural life and health. We strive to create a work environment which promotes a healthy work life balance, and actively carry out various cultural activities. In 2019, we had a 16-kilometer hiking challenge along the Suzhou city moat in which more than 80 employees took part; a themed photography contest, in which we collected over 20 pieces of work and more than 3,700 votes; as well as themed activities for Women’s Day, Dragon Boat Festival, Thanksgiving, Christmas and group building activities of each department. These activities promoted exchanges between employees and increased their sense of belonging in the Company.

Q Case: Hiking challenge

In May 2019, we held a 16-kilometer hiking challenge with the theme of “Enjoy each other’s company and happiness along the way”. Our employees gathered outside the Suzhou city moat and the winning group was selected after following the moat on foot along the fitness trail for more than 4 hours. The hiking challenge greatly increased the Company’s cohesiveness and employees’ teamwork skills. During the follow-up period after the event, the employees showed high satisfaction with the activity.



Figure: The award-winning works in Alphamab Oncology’s photography contest & the Company’s leader presenting beautiful gifts to prize winners



## Environmental, Social and Governance Report



Figure: Birthday parties regularly organized by the Company



Figure: Christmas events



Figure: Team building activities organized by different departments in which 150 employees took part (2019)

### Talent cultivation

We pay great attention to the growth and development of our employees. Based on the diverse characteristics and job requirements of different employees, we provide two career development paths – technological and managerial. In addition, in order to improve senior management's leadership skills and employees' professional skills as well as achieve the mutual growth of the Company and employees, we established the *Training Management Policy* and a systematic training mechanism which covers new employee orientation, pre-service training, professional training, general education course, project-specific training and special license training, ensuring the specialization and standardization of training and improving the ability of employees in all aspects. In 2019, we organized over 20 training activities which were attended by all employees, with an employee participation rate of 100% and total training hours of 1,015 hours.

**Q Case: Manufacturing department personnel went to the U.S. to receive training**

In 2019, three employees from the manufacturing department went to the U.S. to attend a two-week equipment Factory Acceptance Test (FAT) training. During the two-week period the employees analyzed situations, identified problems, proposed solutions, and actively communicated with the foreign engineers to gain full FAT training knowledge. After the employees recorded the key points, difficulties and emphasis in operations, they summarized them in detail to share with coworkers within the department.

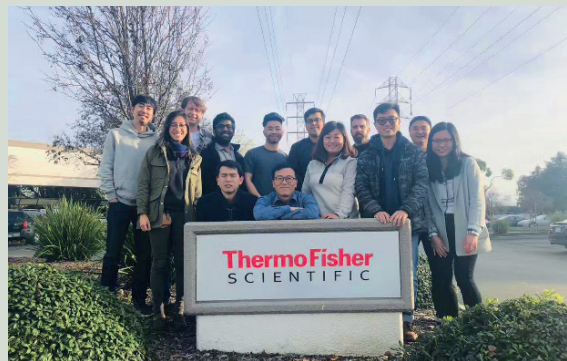


Figure: Employees communicate with, learn from and take photos with foreign engineers

**Q Case: Clinical expertise training**

In order to give new employees a better understanding of clinical knowledge and strengthen internal learning, communication and collaboration, the clinical department conducted 2.5 days centralized clinical expertise training course in April 2019, which was attended by 70 employees, including more than 20 employees from other departments. During the training, employees improved clinical knowledge and laid a solid foundation for team collaboration and cooperation.



Figure: Cross-departmental clinical expertise training site

**Q Case: Training on biopharmaceutical R&D and production process**

From April to June 2019, the Company held five lectures on drug manufacturing expertise and the participants exceeded 150 employees in total. The lectures covered biological pipeline construction, Biological License Application (BLA) inspection, clinical trials, manufacturing process, lifetime quality control and other related contents, and were well received by our employees.

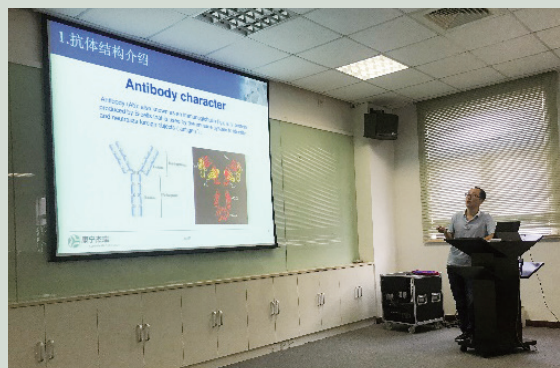


Figure: Training on production process

**Safety and health**

- ***Guarantee occupational health***

To create a good work environment for employees and prevent relevant occupational diseases, the Company highly values dust prevention and noise reduction when building R&D and production base. It installed lots of dust proof equipment and designed a large green area in the industrial park. The Company also hires professional third-party organization to identify and assess risks, detect harmful factors in the work environment, and issue Indoor Air Test Report according to the *Code for Indoor Environmental Pollution Control of Civil Building Engineering*, striving to thoroughly screen for potential occupational health risks and ensure employee safety. The Company adheres to its talent-oriented philosophy of taking concrete measures to protect employees' health. During debugging and pilot-production stages, it conducts occupational health surveillance and examinations for operators exposed to occupational health hazards based on the project's Occupational Health Pre-evaluation result. It also creates occupational health surveillance archives and provides additional physical examination programs for employees exposed to occupational pollution.

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- **Safety training and education**

The Company strictly implements the requirements of the *Production Safety Law of the People's Republic of China* and other relevant regulations. It requires all employees to receive a three-level safety training, accept and pass the evaluation before assuming their posts. In 2019, we delivered seven safety training sessions, covering the Company's safety policies and regulations, incident cases, the safe use of chemicals and fire-fighting equipment, as well as emergency rescue. All new employees participated in the trainings and passed the evaluations, making the total number of employees participating in the trainings reached 224. In addition, in order to further strengthen project safety management, the Company provided training on how to use fire-fighting equipment and organized emergency evacuation drills, aiming to improve employees' safety awareness and emergency-handling skills at project site, so as to protect their physical safety to the greatest extent. In 2019, we had no work-related injuries.



Figure: Production safety training



Figure: Training on how to use fire-fighting equipment



### Community welfare

As a leading clinical-stage biopharmaceutical company in China, we regard community welfare as an integral part of our social responsibility. Our mission is to provide first-in-class biologics for patients worldwide by leveraging our unique drug discovery and development capabilities. In the future, we will present our patients with innovative drug R&D with affordable prices and actively engage in community services to help build harmonious communities.

## Appendices

### Appendix I – ESG Key Performance Indicators

Indicator	2019
<b>Emission</b>	
Total greenhouse gas emissions (Scope 1 & Scope 2) (ton)	874.07
Direct greenhouse gas (Scope 1)	75.81
Indirect greenhouse gas emissions (Scope 2)	798.26
Greenhouse gas emissions per employee (ton/employee)	3.902
Total exhaust gas emissions (ton)	0.04
NOx (Nitrogen oxides)	0.04
PM (particulate matter)	0.001
Total hazardous waste emissions (ton)	1.00
Hazardous waste emissions per employee (ton/employee)	0.004
Total non-hazardous waste emissions (ton)	444.00
Non-hazardous waste emissions per employee (ton/employee)	1.982
<b>Water consumption</b>	
Total water consumption (m <sup>3</sup> )	61,730
Running water	61,533
Recycled water	197
Water consumption per employee (m <sup>3</sup> /employee)	275.580
<b>Energy consumption</b>	
Total energy consumption (MWh)	1,501.82
Electricity	1,134.70
Natural gas	352.24
Gasoline	14.88
Energy consumption per employee (MWh/employee)	6.705
<b>Packaging material</b>	
Total amounts of packaging material (ton)	12.00
Inner packaging material (coated rubber stopper, penicillin bottle, etc.)	11.80
Outer packaging material (product box, cork base, etc.)	0.20

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Indicator	2019
<b>Employment</b>	
Headcount	224
By gender	
Male	115
Female	109
By age group	
Aged under 30	110
Aged 30-50	110
Aged over 50	4
By employee category	
Senior management	8
Middle management	34
General staff	182
By employment category	
Full-time	224
Part-time	0
Contract employee	0
By region	
Beijing	11
Shanghai	32
Suzhou	173
Others	8
Employee turnover rate	26%
By gender	
Male	31%
Female	20%
By age group	
Aged under 30	30%
Aged 30-50	22%
Aged over 50	0%

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Indicator	2019
By region	
Beijing	18%
Shanghai	9%
Suzhou	28%
Others	50%
<b>Safety</b>	
Number of work related fatalities	0
Rate of work related fatalities	0%
Lost days due to work injury	0
<b>Development</b>	
Percentage of trained employees	100%
By gender	
Male	100%
Female	100%
By employee category	
Senior management	100%
Middle management	100%
General staff	100%
Average training hours completed per employee	4.53
By gender	
Female	5
Male	4
By employee category	
Senior management	2
Middle management	3
General staff	5



## Environmental, Social and Governance Report

### Appendix II – Index of Environmental, Social and Governance Reporting Guide from The Stock Exchange of Hong Kong Limited

Aspect	Description	Location/Remark
<b>A. Environmental</b>		
<b>Aspect A1: Emissions</b>		
General disclosure	Information on: (a) the policies; and (b) 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.	Energy use Emission management
A1.1	The types of emissions and respective emissions data.	Emission management
A1.2	Greenhouse gas emissions in total (ton) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	ESG key performance indicators
A1.3	Total hazardous waste produced (ton) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	ESG key performance indicators
A1.4	Total non-hazardous waste produced (ton) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	ESG key performance indicators
A1.5	Description of measures to mitigate emissions and results achieved.	Emission management
A1.6	Description of how hazardous and non-hazardous wastes are handled, reduction initiatives and results achieved.	Emission management

## Environmental, Social and Governance Report

Aspect	Description	Location/Remark
<b>Aspect A2: Use of Resources</b>		
General disclosure	Policies on the efficient use of resources, including energy, water and other raw materials.	Energy use Water resource management
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).	ESG key performance indicators
A2.2	Water consumption in total and intensity (e.g. per unit of production volume, per facility).	ESG key performance indicators
A2.3	Description of energy use efficiency initiatives and results achieved.	Energy use
A2.4	Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency initiatives and results achieved.	Water resource management
A2.5	Total packaging material used for finished products (ton) and, if applicable, with reference to per unit produced.	ESG key performance indicators
<b>Aspect A3: The Environment and Natural Resources</b>		
General disclosure	Policies on minimizing the issuer's significant impacts on the environment and natural resources.	Green development
A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.	Green development

## Environmental, Social and Governance Report

Aspect	Description	Location/Remark
<b>B. Social</b>		
<b>Aspect B1: Employment</b>		
General disclosure	Information on: (a) the policies; and (b) 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.	Employee rights and interests Employee care Talent cultivation
B1.1	Total workforce by gender, employment type, age group and geographical region.	ESG key performance indicators
B1.2	Employee turnover rate by gender, age group and geographical region.	ESG key performance indicators
<b>Aspect B2: Health and Safety</b>		
General disclosure	Information on: (a) the policies; and (b) 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.	Safety and health
B2.1	Number and rate of work related fatalities.	ESG key performance indicators
B2.2	Lost days due to work injury.	ESG key performance indicators
B2.3	Description of occupational health and safety measures adopted, and how they are implemented and monitored.	Safety and health

## Environmental, Social and Governance Report

Aspect	Description	Location/Remark
<b>Aspect B3: Development and Training</b>		
General disclosure	Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities.	Talent cultivation
B3.1	The percentage of employees trained by gender and employee category (e.g. senior management, middle management).	ESG key performance indicators
B3.2	The average training hours completed per employee by gender and employee category.	ESG key performance indicators
<b>Aspect B4: Labor Standards</b>		
General disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to preventing child and forced labor.	Employee rights and interests
B4.1	Description of measures to review employment practices to avoid child and forced labor.	Employee rights and interests
B4.2	Description of steps taken to eliminate such practices when discovered.	Employee rights and interests
<b>Aspect B5: Supply Chain Management</b>		
General disclosure	Policies on managing environmental and social risks of the supply chain.	Supplier management
B5.1	Number of suppliers by geographical region.	Supplier management
B5.2	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, and how they are implemented and monitored.	Supplier management

## Environmental, Social and Governance Report

Aspect	Description	Location/Remark
<b>Aspect B6: Product Responsibility</b>		
General disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer  relating to health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress.	Quality control
B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons.	N.A., no commercial production and sale yet
B6.2	Number of products and service related complaints received and how they are dealt with.	Quality control
B6.3	Description of practices relating to observing and protecting intellectual property rights.	Intellectual property
B6.4	Description of quality assurance process and recall procedures.	Quality control
B6.5	Description of consumer data protection and privacy policies, and how they are implemented and monitored.	N.A., no commercial production and sale yet

## Environmental, Social and Governance Report

Aspect	Description	Location/Remark
<b>Aspect B7: Anti- corruption</b>		
General disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to bribery, extortion, fraud and money laundering.	Compliant operation
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.	Compliant operation
B7.2	Description of preventive measures and whistleblowing procedures, and how they are implemented and monitored.	Compliant operation
<b>Aspect B8: Community Investment</b>		
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.	Community welfare
B8.1	Focus areas of contribution (e.g. education, environmental concerns, labor needs, health, culture, sport).	To be disclosed in 2020 ESG report
B8.2	Resources contributed (e.g. money or time) to the focus area.	To be disclosed in 2020 ESG report