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PRODUCE THE BEST VACCINES
TO BENEFIT MANKIND



2022 CORPORATE SOCIAL RESPONSIBILITY REPORT AND ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT

Shenzhen Kangtai Biological Products Co., Ltd.

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About this Report

Basis of the Report

The report has been compiled in accordance with the Guidelines on the Content and Format of Information Disclosure by Companies Publicly Issuing Securities No. 2: Content and Format of Annual Reports by the China Securities Regulatory Commission (CSRC), the Guidelines on Self-regulation of Listed Companies on Shenzhen Stock Exchange No. 2: Standardized Operation of Listed Companies on the ChiNext Market by the Shenzhen Stock Exchange (SZSE) and other relevant regulations.

Scope of the Report

Organizational scope

The report covers Shenzhen Kangtai Biological Products Co., Ltd. (BioKangtai, or the Company) and its wholly-owned subsidiary, which is in line with the scope of the Company's annual consolidated financial statements.

Full Name	Abbreviations
Shenzhen Kangtai Biological Products Co., Ltd.	BioKangtai, the Company
Beijing Minhai Biotechnology Co., Ltd.	BioMinhai

Time scope

From January 1, 2022, to December 31, 2022, with some representations and information traced back to previous years as appropriate.

Data Description

If not otherwise stated, the financial data disclosed in the report are derived from the audited financial report of the Company and other data are obtained from the Company's internal statistics and relevant documents. The currency type in the report is Chinese Yuan (CNY), and amounts covered in the report are in Chinese yuan.

Report Language

The report is written in two languages, Chinese and English. If there is any discrepancy between the two versions, the Chinese version shall prevail.

Reporting Principles

The report is underpinned by following reporting principles:



Materiality

The report identifies and responds to substantive issues that are of concern to stakeholders and also have a significant influence on the Company, and provides focused reporting on these issues.



Balance

Taking into account the characteristics of the industry, the report makes a detailed disclosure of the Company's active fulfillment of social responsibilities, possible problems and improvement plans and avoids selective disclosure.



Quantitative

The report provides statistics on the Company's quantitative ESG performance and discloses historical data for the past three years.



Comparability

The report provides detailed explanations of the meaning of the disclosed quantitative KPIs, as well as the basis for their calculation and the assumed conditions. Meanwhile, indicators used in different reporting periods are consistent to the extent possible to reflect trends in the performance levels.



About BioKangtai

Company Overview

Since its inception in 1992, Shenzhen Kangtai Biological Products Co., Ltd. has been specialized in R&D, production and sales of vaccines for human use. Listed on the ChiNext market of the Shenzhen Stock Exchange in February 2017 (stock code: 300601), the Company is the first listed vaccine company in South China. Headquartered in Shenzhen, the Company has five R&D centers and industrial bases in Shenzhen and Beijing. It is one of the major vaccine manufacturers in China. The Company's main products include 13-Valent Pneumococcal Polysaccharide Conjugate Vaccine, DTaP-Hib Combined Vaccine, 23-Valent Pneumococcal Polysaccharide Vaccine, Recombinant Hepatitis B Vaccine (*Saccharomyces cerevisiae*), Hib Conjugate Vaccine, Hib Conjugate Vaccine, Freeze-dried, etc. The Company's SARS-CoV-2 Vaccine (Vero Cell), Inactivated was approved for emergency use in China in May 2021, and its Recombinant COVID-19 Vaccine (Y25 Adenovirus Vector) was authorized for emergency use by the National Agency of Drug and Food Control of Republic of Indonesia in October 2021. The Company's product portfolio covers both vaccines for the national immunization program vaccines and non-immunization program vaccines, with products reaching 31 provinces, municipalities and autonomous regions.

The Company is an industry leader in R&D innovation and has been engaged in the vaccine industry for over 30 years, which has made it an innovative biopharmaceutical company with strong R&D strength, rich product offerings and leading industrial scale. As one of the companies with the most comprehensive vaccine R&D platforms in China, the Company has established the R&D and production capacity of virus vaccines, bacterial vaccines, genetically engineered vaccines, conjugate vaccines, combination vaccines and other products. In addition, keeping abreast of international cutting-edge technology, the Company has been exploring the research on application of new vaccine technologies and the establishment of new technology platforms, and has reserved product development platforms for, inter alia, mRNA technology, new adenovirus vector technology and new adjuvant technology, which could provide technical guarantee for the Company to overcome the R&D barriers of a number of heavyweight vaccine varieties.

The Company has more than 60 patents and over 30 vaccine varieties under development, basically covering the key vaccine varieties in the world. Some vaccines out of them have entered registration process, including the Rabies vaccine (human diploid cell) for human use, Freeze-dried, the Freeze-dried Live Attenuated Varicella Vaccine, the Inactivated Poliomyelitis Vaccine, Sabin Strains(Vero cell), the Diphtheria, Tetanus and Acellular Pertussis Combined Vaccine (component) , Adsorbed, Diphtheria, tetanus, pertussis (acellular, component), poliomyelitis (inactivated) vaccine (adsorbed) and Haemophilus influenzae type b conjugate vaccine, the Diphtheria, tetanus, acellular pertussis (component) Adsorbed Inactivated poliovirus vaccine, the Reassortant Rotavirus Vaccine, Live, Oral, Pentavalent (Vero Cell), the Influenza Vaccine (Split Virion), Inactivated, Quadrivalent and the MMR combined with live attenuated vaccine. The Company also made arrangements in the development of products such as the quadrivalent inactivated HFMD vaccine, the 20-valent pneumococcal polysaccharide conjugate vaccine, the zoster vaccine recombinant and the respiratory syncytial virus vaccine recombinant (RSV). With the upcoming release of the vaccines, the Company's product portfolio will be greatly enriched and its competitiveness will be further enhanced.

Based on a global strategy of "bring in" and "go abroad". The Company has been working closely with several internationally renowned biopharmaceutical companies and R&D institutions, such as Merck (US), Sanofi-Pasteur (France), Intravacc (Netherlands) and AstraZeneca (UK), to import advanced vaccine technologies from abroad. Meanwhile, the Company has been fostering the registration of its products overseas to boost the presence of its products on overseas markets. In this regard, the Company has obtained export certificates in some countries for its DTaP-Hib Combined Vaccine, 23-Valent Pneumococcal Polysaccharide Vaccine and Recombinant Hepatitis B Vaccine (*Saccharomyces cerevisiae*). In addition, our Recombinant COVID-19 Vaccine (Y25 Adenovirus Vector) was authorized for emergency use by the National Agency of Drug and Food Control of Republic of Indonesia and exported in October 2021. In March 2022, the Company and its Philippine partner reached cooperation on the joint promotion of the registration, promotion, distribution, marketing and sales of the Company's 23-Valent Pneumococcal Polysaccharide Vaccine in the Philippines; in May 2022, our Recombinant COVID-19 Vaccine (Y25 Adenovirus Vector) production site received a Declaration of Conformity issued by the European Union's qualified person, and in July 2022, the Company's vaccine production site in Guangming District, Shenzhen, received a GMP Declaration of Conformity issued by the Food and Drug Administration, Philippines, marking the alignment of the Company's quality management system with international standards; since August 2022, the Company has reached cooperation with its partners in the Philippines and Indonesia to jointly promote the registration, promotion, distribution, marketing and sales of the Company's 13-Valent Pneumococcal Polysaccharide Conjugate Vaccine in the Philippines and Indonesia; in February 2023, the Company entered into cooperation with Pakistani partners to jointly promote, among others, the registration, marketing and distribution license of the Company's 13-Valent Pneumococcal Polysaccharide Conjugate Vaccine and 23-Valent Pneumococcal Polysaccharide Vaccine in the Philippines in Pakistan; in March 2023, a memorandum of strategic cooperation was entered into among the Company, AstraZeneca and Combiphar (an Indonesia Company) to jointly promote the local production and commercialization of our vaccines (including COVID-19 Vaccine and other vaccines) in Indonesia; and in April 2023, BioMinhai signed a license and technology transfer agreement with Biotis of Indonesia for dual-vector 13-valent pneumococcal polysaccharide conjugate vaccine, whereby the two parties will jointly promote, among others, the local production, registration and commercial operation of this vaccine in Indonesia. Looking forward, the Company will continue to increase its efforts in international market expansion and actively explore diversified sales channels for its products, so as to promote the Company's products to the international market and facilitate the realization of its internationalization strategy.

2022 ESG Performance

Business Operation

Operating revenue	Total assets	Owner's equity	Total tax payment
3,157.4 million yuan	13,786.35 million yuan	8,985.34 million yuan	517.63 million yuan

Products

R&D investment	R&D projects	Products marketed (including those approved for emergency use)	Complaint handling rate	product recall events
993.56 million yuan	30+	10+	100%	No

Safety and Environmental Protection

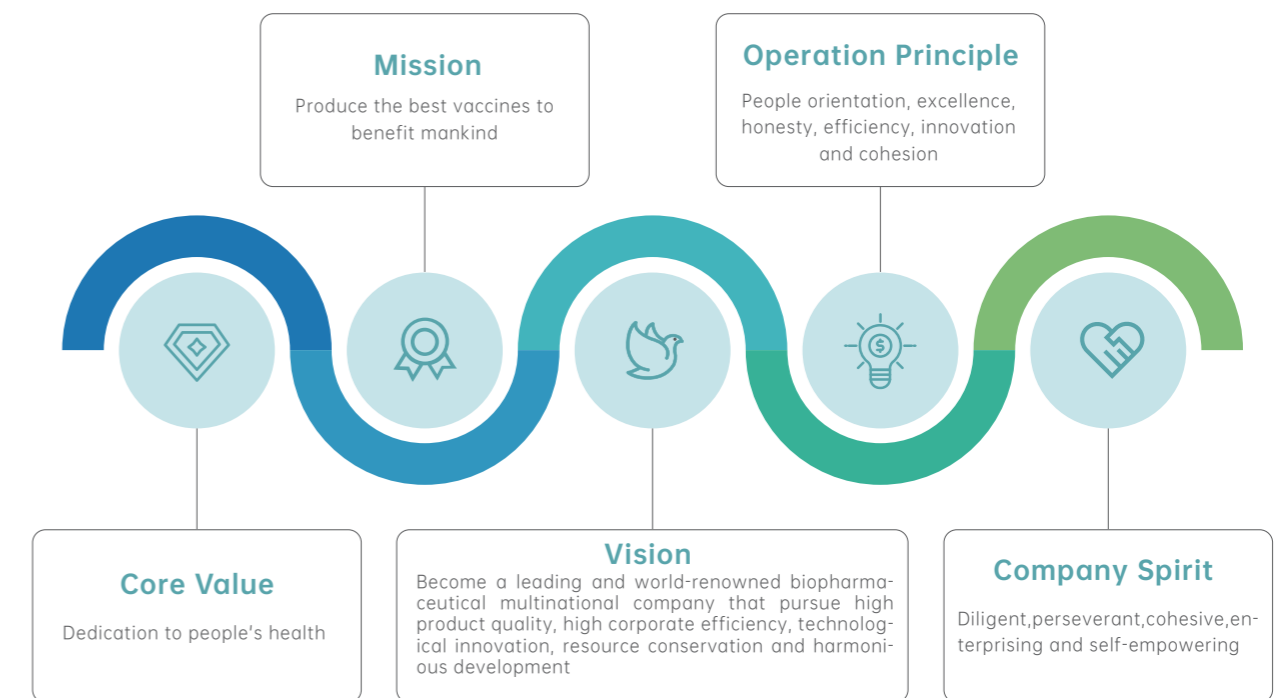
Total environmental investment	Three wastes emission compliance	production safety accidents of average or above	accidents relating to occupational disease hazards
4.25 million yuan	100%	0	No

Social Performance

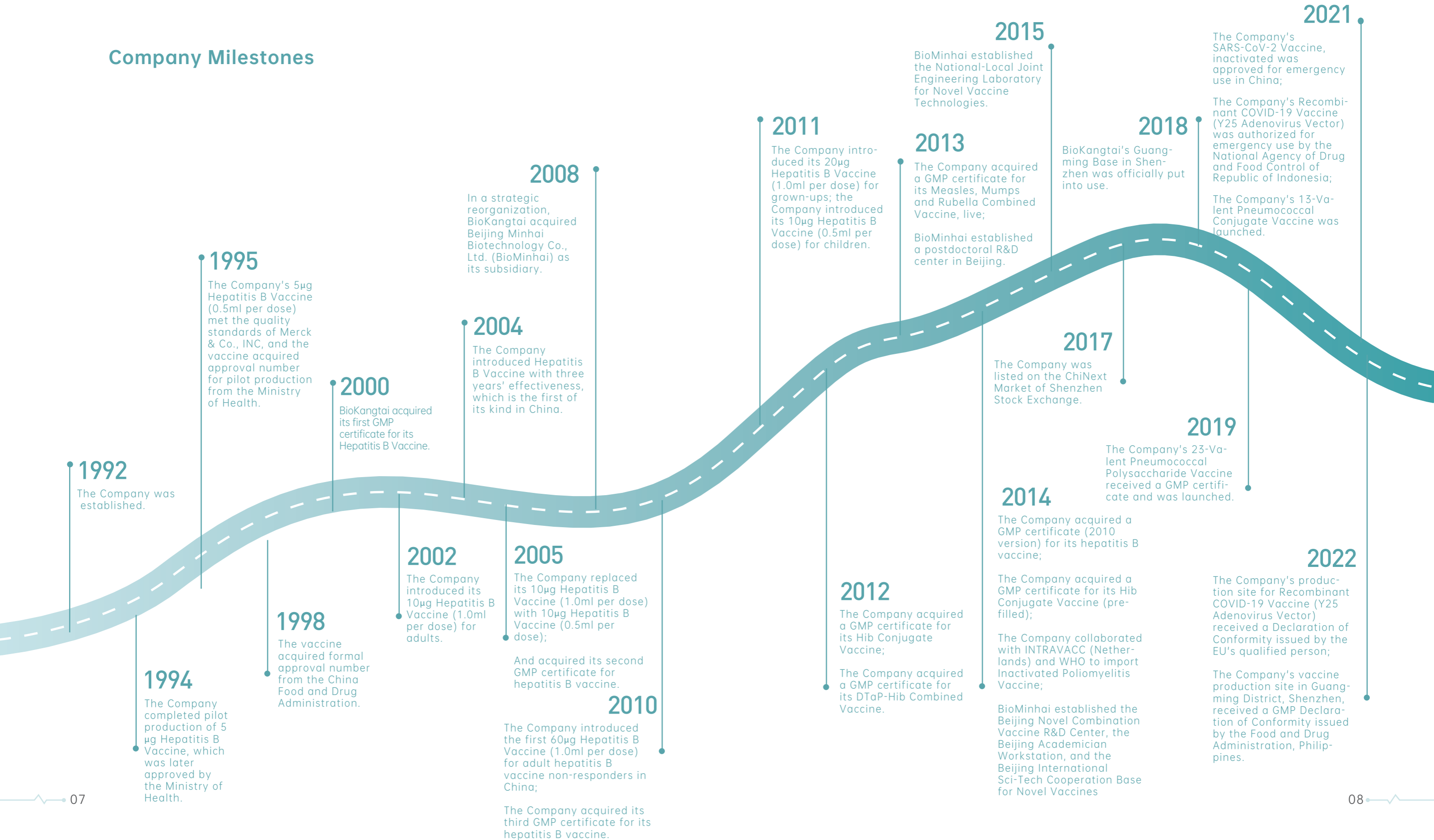
Community investment	Total workforce	Percentage of female employees	Labor contract signing rate
14.65 million yuan	2,018	39.05%	100%

Values and Philosophy

BioKangtai has always adhered to the corporate purpose of "producing the best vaccine to benefit the mankind" and the core value of "dedication to people's health". With a focus on long-term exploration in the biopharmaceutical sector, the Company aims to become a leading and world-renowned multinational company to contribute to the development of public health sciences. We take a market-oriented approach to enhance our R&D performance and product innovation, continuously optimize our product mix, and to pursue high product quality, marginal efficiency, technological innovation, resource conservation and harmonious development.



Company Milestones



Honors and Recognition

Recipient	Honors and Special Recognition	Awarded by
BioKangtai	First Prize of Shenzhen Science and Technology Awards	Shenzhen Municipal People's Government Science and Technology Awards Committee
	Innovative Enterprise of Guangdong	Guangdong Provincial Science and Technology Department, Guangdong Provincial Development and Reform Commission, Guangdong Provincial Economic and Information Commission, State-owned Assets Supervision and Administration Commission of Guangdong Provincial People's Government, Guangdong Provincial Intellectual Property Bureau, Guangdong Provincial Federation of Trade Unions
	Key High-tech Enterprise of China Torch Program	Torch High-tech Industry Development Center, Ministry of Science and Technology
	China Key New Product Certificate	Ministry of Science and Technology/Ministry of Environmental Protection/Ministry of Commerce, etc.
	Leading Enterprise of Guangdong Pilot 100 Program	Guangdong Provincial Economic and Information Commission/ Guangdong Provincial Science and Technology Department, etc.
	High-tech Enterprise Certificate	Science, Technology and Innovation Commission of Shenzhen Municipality/Shenzhen Municipal Finance Committee/Shenzhen Tax Service, State Taxation Administration/Shenzhen Local Taxation Bureau
	2019 Top 20 Shenzhen Leading Biotech Companies	Shenzhen National High-Tech Industry Innovation Center
	Academician (expert) workstation	Shenzhen Association for Science and Technology
	Guangdong "Excellent Group Member" for Qualified Person in the Pharmaceutical Industry	Qualified Person Committee of Guangdong Pharmaceutical Association
	Pioneer of the Year in COVID-19 Relief	2021 Shenzhen Corporate Social Responsibility Conference
	Shenzhen Advanced Grassroots Party Organization	CPC Shenzhen Municipal Committee
	"Global Top 100 Pharmaceutical Enterprises" in COVID-19 Relief	Torrey, a global investment bank
	Top 10 Shenzhen Listed Companies with Development Potential	National Business Daily
	Winner in Pharmaceuticals Biology of the 10th China JRJ Golden Intelligence Award	JRJ
	Top 10 Most Promising Listed Companies in ChiNext at the 13th China Listed Companies Awards	Securities Times
	Top 50 Most Promising Listed Companies for the 40th Anniversary of Shenzhen Special Economic Zone	Securities Times
	Model Collective in Love Donation for COVID-19 Pandemic Prevention and Control in 2020	Red Cross Society of China Jiangxi Branch, Jiangxi Red Cross Foundation
	Honorary Certificate of Recognition for the Fight Against the COVID-19 Pandemic in Shenzhen	CPC Shenzhen Municipal Committee, Shenzhen Municipal Government
	Top of the 2021 Brand Communication Power List of Listed Companies in the Pharmaceutica and Medical Industry in the Greater Bay Area	Shenxin Communication ThinkJiangxi Red Cross FoundationTank of Shen Zhen PressGroup, Qingbo IntelligentTechnology Co., Ltd.
	"Top Ten Caring Enterprises" of the 19thShenzhen Care Action	Shenzhen Spiritual Civilization Construction Committee
AA Rating of "2022 Wind ESG Rating", ranked in the top 10 in the healthcare sector	Wind	
2022 Enterprise ESG Outstanding Social Responsibility Practice Case	Xinhuanet, China Enterprise Reform and Development Society	
China's Top 500 New Economy Enterprises	China Enterprise Evaluation Association	

Recipient	Honors and Special Recognition	Awarded by
BioMinhai	High-tech Enterprise Certificate	Beijing Municipal Science and Technology Commission, Beijing Municipal Finance Bureau, Beijing Municipal Tax Service of State Taxation Administration
	Key Innovation-driven Enterprise, Beijing G20 Project for Evolution of Biomedical Industry	Beijing Municipal Science and Technology Commission, Beijing Municipal Development and Reform Commission, Industrial Park Management Committee of Beijing Municipal Bureau of Economy and Information Technology
	Beijing Science and Technology Awards	Beijing Municipal People's Government
	Beijing Key Laboratory for Novel Conjugate Vaccine Technology	Beijing Municipal Science and Technology Commission
	Beijing Novel Vaccine Engineering Laboratory	Beijing Municipal Development and Reform Commission
	Postdoctoral R&D Center	Ministry of Human Resources and Social Security, China Postdoctoral Management Committee
	Beijing International Sci-Tech Cooperation Base for Novel Vaccines	Beijing Municipal Science and Technology Commission
	Beijing Novel Combination Vaccine R&D Center	Beijing Municipal Science and Technology Commission
	National-Local Joint Engineering Laboratory for Novel Vaccine Technologies.	National Development and Reform Commission of China
	Beijing Enterprise Technology Center	Beijing Municipal Bureau of Economy and Information Technology
	Science and Technology Award of the Chinese Pharmaceutical Association	Chinese Pharmaceutical Association
	Academician (Expert) Workstation Certification	China Association for Science and Technology
	Worker Pioneer Award	All-China Federation of Trade Unions
	Beijing Intellectual Property Demonstration Organization	Beijing Municipal Intellectual Property Office
	IPMS Certificate	Zhongzhi (Beijing) Certification Co., Ltd.
	Top 100 Beijing Private Enterprises in CSR	Beijing Municipal Federation of Industry and Commerce
	Top 100 Beijing Private Enterprises in Science and Technology Innovation	Beijing Municipal Federation of Industry and Commerce
	Zhongguancun High-tech Enterprise Certificate	Zhongguancun Science Park Management Committee
	Beijing Model Worker's Home	Beijing Municipal Human Resources and Social Security Bureau
	Demonstration Enterprise in Harmonious Labor Relations in China	Beijing Municipal Human Resources and Social Security Bureau
	Practice Site of Examiner Practice (Beijing Zhongguancun) Base of China National Intellectual Property Administration	Zhongguancun Intellectual Property Promotion Center, under the supervision of Beijing Municipal Intellectual Property Office as authorized by China National Intellectual Property Administration
	Daxing District Green Credit Five Star Enterprise	Joint Conference Office of Beijing Daxing District Green Credit System

ESG Approach

BioKangtai, as a high-tech enterprise with comprehensive R&D competence, diversified product range and remarkable technological advantages, has introduced a five-dimensional ESG management philosophy based on the corporate purpose of "producing the best vaccines to benefit the mankind", core value of "dedication to people's health", as well as the operation principles of "people orientation, excellence, honesty, efficiency, innovation and cohesion". The ESG philosophy focuses on the protection of the rights and interests of stakeholders such as shareholders, employees, customers and suppliers, and places emphasis on normative and honest operation with a view to promoting the sustainable and balanced development of the Company, the society and the environment. In 2022, BioKangtai was selected as the "2022 Enterprise ESG Outstanding Social Responsibility Practice Case" by Xinhuanet and won the AA rating of "2022 Wind ESG Rating", ranking among the top ten in the healthcare industry.



Stakeholder Communication and Material Issue Identification

Stakeholder Communication

Stakeholder communication and participation is crucial for the Company to promote ESG management and achieve sustainable development. The Company attaches great importance to the demands of stakeholders and maintains two-way communication through various channels with stakeholders such as shareholders, investors, governments and regulators, customers, suppliers, employees, industry associations, communities and the public. We listen and respond actively to the suggestions and feedback from our stakeholders, and incorporate their concerns into our operations and decision-making, thereby satisfying their demands while improving our business management and achieving sustainable development.

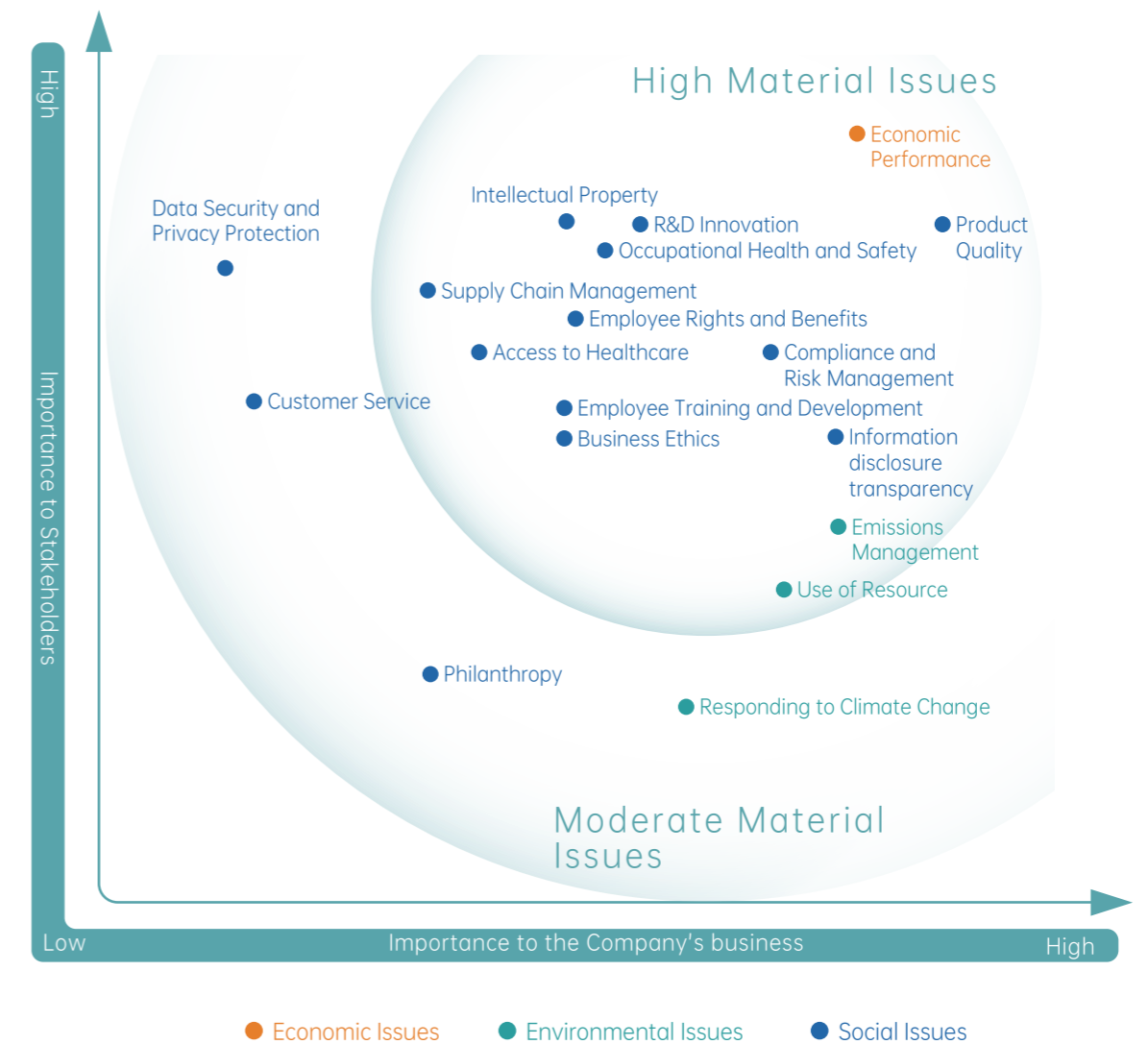


Key Stakeholders	Communication Channels	Issues of Interest
Shareholders and Investors	<ul style="list-style-type: none"> General Meeting of Shareholders Information Disclosure SZSE's Easy IR Platform Investor Communication, Roadshows, Conference Investor Hotline/Email 	<ul style="list-style-type: none"> Disclosure and Transparency Compliance and Risk Management Economic Performance
Government and Regulatory Agencies <small>(e.g., National Medical Products Administration)</small>	<ul style="list-style-type: none"> Comply with appropriate laws and regulations Daily Policy Implementation Regular Work Summary and Official Correspondence Law Enforcement Supervision and Inspection 	<ul style="list-style-type: none"> Compliance and Risk Management Business Ethics Occupational Health and Safety Emissions Management Responding to Climate Change Use of Resources Environmental Protection
Customers	<ul style="list-style-type: none"> Customer Satisfaction Survey Customer Visits Professional Communication Customer Services and Customer Complaints 	<ul style="list-style-type: none"> Product Quality R&D Innovation Customer Service Data Security and Privacy Protection
Suppliers	<ul style="list-style-type: none"> Supplier Assessment and Audit Supplier Training 	<ul style="list-style-type: none"> Business Ethics Supply Chain Management
Employees	<ul style="list-style-type: none"> Regular Meetings Employee Activities Labor Union and Staff Council Complaints and Feedback 	<ul style="list-style-type: none"> Employee Rights and Benefits Employee Training and Development Occupational Health and Safety
Industry Associations	<ul style="list-style-type: none"> Industry Associations and Organizations Professional Communication Project Cooperation 	<ul style="list-style-type: none"> R&D Innovation Intellectual Property Rights Industry Development
Community and Public	<ul style="list-style-type: none"> Community Activities and Services Regular Communications Media Communication Popularization of Vaccine Knowledge 	<ul style="list-style-type: none"> Social Welfare Access to Healthcare

Material Issue Identification

Referring to the latest policies of CSRC and SZSE and excellent practices of peers at home and abroad, the Company undertook the identification of material issues based on its own business and characteristics as well as expert opinions, with full consideration of stakeholders' demands and priorities of concern. After identification, ranking and verification, we identified 18 material issues as the focus of disclosure in the report, as shown in the chart below.

◎ BioKangtai's material issues matrix



Governing Enterprise in Accordance with the Law and Escorting Sustainable Development

Party Building Leading

2022 is the year for the 20th CPC National Congress which was convened by the Communist Party and the crucial year of the implementation of the "14th Five-Year Plan". The Party committee of the Company always insists on the guidance of Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, deepens the study and implementation of the spirit of the 20th CPC National Congress, strengthens the ideological armament, carries out in-depth grass-roots Party building, gives full play to the political leadership of Party grass-roots organizations and the pioneering role of Party members, promotes the deep integration of Party building work and corporate governance, production and operation, corporate culture and social responsibility, and leads the high-quality development of our Company with high-quality Party building.

Improving the construction of Party organization

In June 2022, the Company completed the re-election of the Party committee to further improve the organizational structure, enhance the organizational capacity, strengthen the organizational leadership and promote the construction work of the Party branch. The Party committee of BioKangtai is composed of five members, with one secretary and one deputy secretary. The Party committee of BioKangtai has 96 registered Party members and 2 branches under it. All Party members, under the leadership of the new Party committee, are concentrating their efforts and forging ahead for the steady development of the Company.

Construction of Party organization



Choosing to set up advanced models

In order to give full play to the exemplary role of grass-roots Party organizations and the pioneering role of Party members, the Company has carried out the selection of advanced typical characters of "love the country, the post and the family" and the selection of "May Fourth Medal" of BioKangtai, actively transmitting the power of role models, promoting work in all areas by drawing upon the experience gained on key points, creating a good atmosphere for learning and striving to be a model, and encouraging the active contribution to the cause of human immune health with the posture of a doer who strives for the first.

Reinforcing the foundation of Party building

The Party committee of the Company insists on putting political construction in the first place, deeply promoting the study and implementation of the spirit of the 20th CPC National Congress, the latest important speeches of General Secretary Xi Jinping and the spirit of important instructions and directives, learning around the construction of the Party conduct and of an honest and clean government, and effectively strengthening the work of Party construction, ideology and the construction of Party conduct and of an honest and clean government. It conscientiously implements "the Three Meetings and One Lecture system", the Thematic Party Day activities, organizes the life of the Party and democratic evaluation of the Party members, carries out the Party history study and education activities in a down-to-earth manner, guides the majority of Party members to firmly establish the "red line" awareness with worst-case scenarios in mind. The Party committee also educates Party members and cadres to practice in learning and learning in practice, in order to effectively improve the political quality of Party members and cadres and their capabilities to solve practical problems, promote the harmony and stability of the enterprise, create a clean and upright enterprise ecology, and build a solid foundation for the high-quality development of the Company.



Carrying out Party building activities

The Party committee of the Company insists on bringing the team building with the Party building and promoting the Party building with the team building, strengthening and improving the work of the Party group under the new situation through a series of Party building activities, maintaining and enhancing the political, advanced and mass nature, enhancing the vitality of the Party organization building, and promoting the deep integration of the Party building work and the central work.

In 2022, the Party committee of the Company organized a series of activities to celebrate the 30th anniversary of the establishment of BioKangtai. Promoted the spirit of love and dedication to work and inspired the courage of employees to struggle and strive.

Set up "Kangxin Fund" (康馨基金) To provide assistance to employees in difficulties

Created an enterprise internal magazine "Guardian" (《守护》) To build a communication platform for the Party and mass building and corporate culture

Opened a Party building book bar Organized reading month activities and other forms of Party building activities to promote the relationship of Party and masses, enhanced the role of the Party branch as a fighting base and continuously strengthened the centripetal force of the Company.

Party building activities

Normative Governance

Governance Structure

The Company strictly complies with the relevant provisions of the Company Law of the People's Republic of China (hereinafter referred to as the "Company Law"), the Securities Law of the People's Republic of China (hereinafter referred to as the "Securities Law"), the Code of Corporate Governance for Listed Companies in China, the Rules Governing the Listing of Shares on the ChiNext Market of Shenzhen Stock Exchange, the Guidelines on Self-regulation of Listed Companies on Shenzhen Stock Exchange No. 2: Standardized Operation of Listed Companies on the ChiNext Market and other relevant laws and regulations. It has established a governance structure consisting of the general meeting, the Board of Directors, the board of supervisors and the management, formulated rules such as Rules of Procedure of the General Meeting of Shareholders, Rules of Procedure of the Board of Directors, Rules of Procedure of the Supervisory Board and Responsibilities of the President, clarifying the responsibilities and authority, rules of procedure and working procedures of the General Meeting of Shareholders, the Board of Directors and the management, forming a scientific and effective division of responsibilities and checks and balances mechanism, and standardizing operations. The "three meetings and one management" strictly follow the provisions of the Company Law, the Articles of Association and the Rules of Procedures, perform their own responsibilities with mutual constraints, and safeguard the legitimate rights and interests of the Company and all shareholders.

The General Meeting of Shareholders

The General Meeting of Shareholders is the highest authority of the Company.

The Board of Directors of the Company

The Board of Directors is the business decision-making body of the Company, and is responsible to the General Meeting of Shareholders.

The Supervisory Board of the Company

The Supervisory Board of the Company is the supervisory body of the Company, responsible for the supervision and inspection of the Company's business operation and financial status, as well as the supervision of the directors and senior management of the Company in performing their duties in accordance with the law, and responsible to the General Meeting of Shareholders.

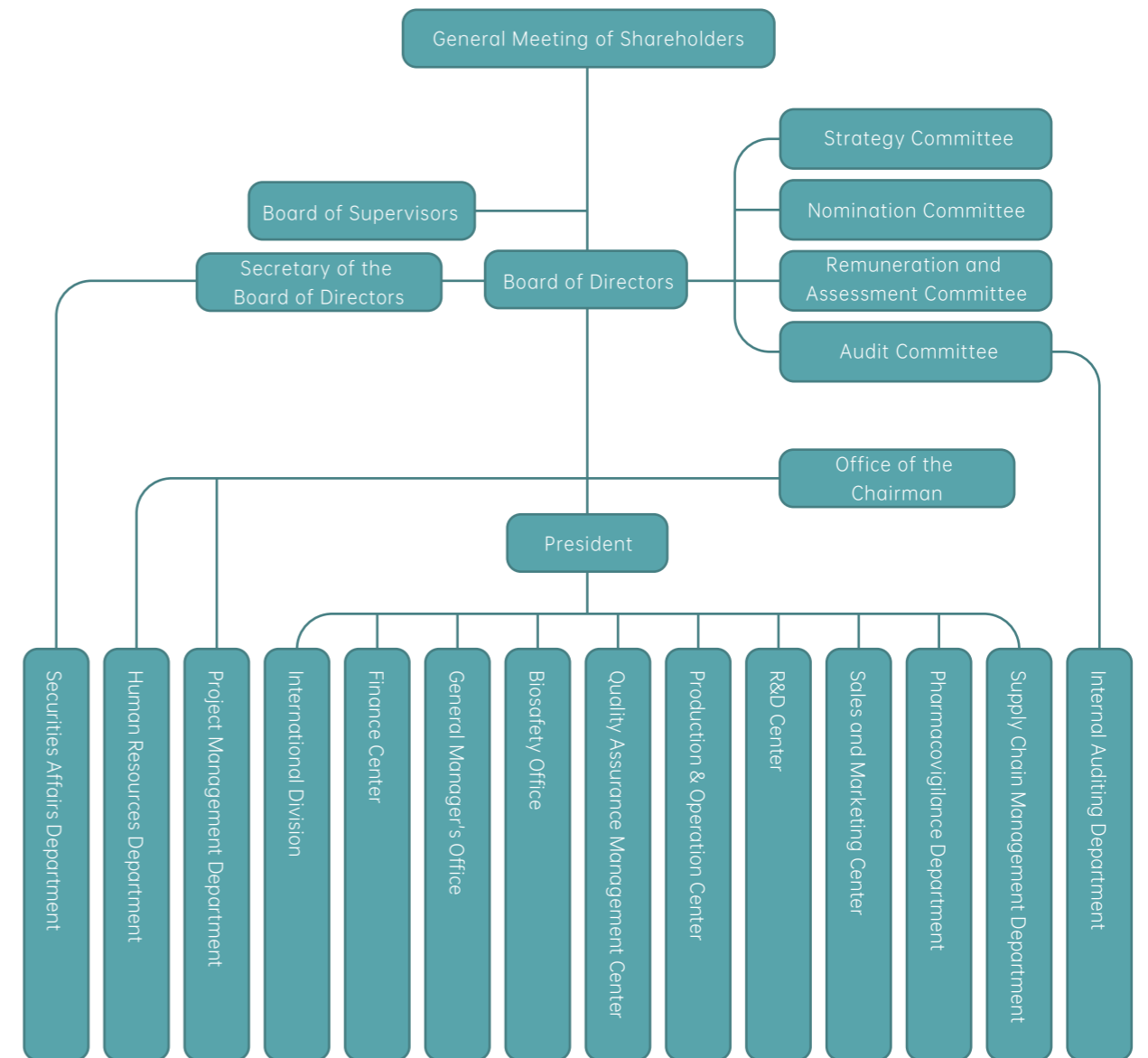
The President

The President presides over the daily production and operation management of the Company within the authorization of the Board of Directors.

The Company's governance status was in compliance with the requirements issued by the CSRC and the SZSE in relation to the governance of listed companies. The Company has been improving its corporate and standardized corporate governance structure, optimizing its internal control management system, improving its risk prevention capability, and ensuring its compliance and sound development.



◎ BioKangtai's governance structure



About shareholders and Shareholders' Meeting

The Company strictly follows the relevant regulations and requirements of the Company Law, the Rules for General Meeting of Shareholders of Listed Companies and the ChiNext Stock Market of the Shenzhen Stock Exchange as well as the relevant provisions of the Articles of Association and the Rules of Procedure for General Meeting of Shareholders to regulate the convening, holding and voting procedures of shareholders' meetings and treat all shareholders equally. The Company holds shareholders' meetings through a combination of on-site and online voting to ensure that shareholders can fully exercise their rights.

During the reporting period, the Company held **one** annual general meeting and **one** extraordinary general meeting, at which **nine** motions were considered. The meetings were convened by the Board of Directors, and lawyers were invited to witness the meetings and issue legal opinions on the convening and voting procedures of the shareholders' meetings. The convening and holding procedures of the shareholders' meetings and the motions considered were in compliance with the relevant laws and regulations and the Articles of Association.

About the Company and the controlling shareholder

The Company has independent and complete business and independent operation capability, and is independent of the controlling shareholder in terms of personnel, assets, finance, institutions and business, with separate accounting an independent responsibility and risk. During the reporting period, major decisions of the Company were made by the General Meeting of Shareholders and the Board of Directors in accordance with the law. The controlling shareholder exercises its rights through the General Meeting of Shareholders without interfering directly or indirectly in the decision-making and operating activities of the Company beyond the General Meeting of Shareholders. There are no circumstances such as appropriating the Company's funds or requesting guarantees for them or guaranteeing others.

About directors and Board of Directors

The Board of Directors of the Company consists of eight directors, including three independent directors, and the number and composition of the Board of Directors are in compliance with the laws, regulations and the Articles of Association of the Company. The directors of the Company attend the Board of Directors' meetings and shareholder' meetings actively and dutifully promote the effective operation of the Board of Directors and scientific decision-making. There are four specialized committees under the Board, namely, the Strategy Committee, the Audit Committee, the Nomination Committee and the Remuneration and Assessment Committee. Each committee carries out its functions in strict accordance with its own working rules to promote scientific decision-making of the Board, improve the efficiency of the Board's operation and play an important role in the governance of the Company.

During the reporting period, the Company held 6 meetings of the Board of Directors with 35 motions considered. The meetings were all convened and chaired by the Chairman of the Company, and the convening, holding and voting procedures of the meetings were in compliance with the relevant provisions of laws and regulations and the Articles of Association and the Rules of Procedure of the Board of Directors.

About supervisors and the Board of Supervisors

The Board of Supervisors of the Company is composed of three supervisors, including two employee representatives, and the number and composition of the Supervisory Board are in compliance with the laws, regulations and the Articles of Association of the Company. The supervisors of the Company strictly abide by the requirements of the Company Law, Guidelines on Self-regulation of Listed Companies on Shenzhen Stock Exchange No. 2: Standardized Operation of Listed Companies on the ChiNext Market, Articles of Association and Rules of Procedure of the Board of Supervisors, and conscientiously perform their duties by attending the meetings of the Board of Supervisors, the meetings of the Board of Directors and the meetings of the General Meeting of Shareholders, and supervising the development strategy, financial activities, risk management, internal control and the performance of duties of the Board of Directors and senior management of the Company in accordance with the law for the benefit of the shareholders and the overall interests of the Company.

During the reporting period, the Company held 5 meetings of the Board of Supervisors with 25 motions considered, all of which were convened and chaired by the chairman of the Board of Supervisors, and the convening, holding and voting procedures of the meetings were in compliance with the relevant provisions of the laws and regulations and the Articles of Association and the Rules of Procedure of the Board of Supervisors.

Rewarding Our Shareholders

The Company has formulated a sustainable profit distribution policy to continuously reward its shareholders. Since its listing, the Company has implemented its profit distribution plan in strict accordance with the relevant profit distribution policy and deliberation procedures of the Articles of Association, with clear and explicit criteria for dividend distribution and complete decision-making procedures and mechanisms. After consideration by the Board of Directors and the Board of Supervisors and opinions by the independent directors, the relevant proposals are submitted to the General Meeting of Shareholders for consideration to effectively protect the legitimate rights and interests of shareholders, especially the small and medium shareholders.

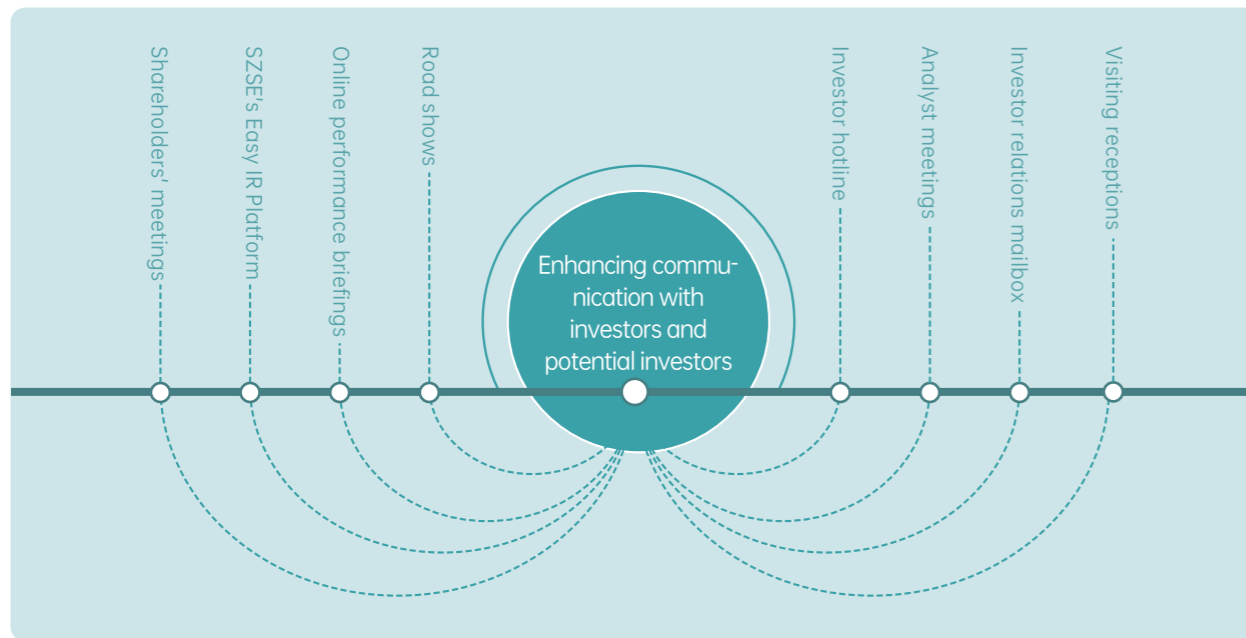
In June 2022, the Company implemented the 2021 Annual Equity Distribution Plan to **distribute 8.5 yuan** (tax-inclusive) cash dividends **for every 10 shares** to all shareholders from undistributed profits, and **6 shares for every 10 shares** to all shareholders from capital reserve, without bonus shares. Since its listing in 2017, the Company has paid cash dividends of 1,239 million yuan in total.

In 2022, the Company implemented share repurchases. According to Article 7 of the Guidelines on Self-regulation of Listed Companies on Shenzhen Stock Exchange No.9 – Share Repurchase, where the Company adopts a tender offer or the centralized bidding method to repurchase its shares using cash as consideration, the amount of shares repurchased in the current year shall be deemed as the amount of cash dividends to be paid and shall be included in the calculation of relevant proportions for the distribution of cash dividends for the year. The total amount of funds paid by the Company to repurchase shares by way of centralized bidding during the period from September 21, 2022 to March 13, 2023 was **120,967,842.86** yuan (excluding transaction fees), of which the total amount of funds paid during the year 2022 was **19,993,586.45** yuan (excluding transaction fees), which was regarded as the amount of cash dividends for the year 2022.



Continuous Strengthening of Investor Relations Management

The Company strictly complies with the Guidelines on Self-regulation of Listed Companies on Shenzhen Stock Exchange No. 2: Standardized Operation of Listed Companies on the ChiNext Market, Guidelines for Investor Relations Management of Listed Companies, and Rules on Investor Relations Management. It has clearly defined the investor relations management mechanism, with the Secretary of the Board of Directors as the person in charge of investor relations management and the Securities Affairs Department as the functional department of investor relations management, led by the Secretary of the Board of Directors, and dedicated personnel in charge of investor reception. Through diversified methods such as shareholders' meetings, online performance briefings, road shows, analyst meetings, visiting receptions, SZSE's Easy IR Platform, investor hotline, investor relations mailbox, etc., the Company strengthens communication with investors and potential investors, sincerely listens to investors' opinions and suggestions, in order to convey new developments of the Company, enhance investors' understanding and recognition of the Company, and maintain a good relationship between the Company and investors.



Regulating Information Disclosure

With great emphasis on information disclosure, the Company has strengthened its management of information disclosure affairs in accordance with the provisions and requirements of the Company Law, the Measures for the Administration of Information Disclosure of Listed Companies, the Rules Governing the Listing of Shares on the ChiNext Market of Shenzhen Stock Exchange and the Guidelines on Self-regulation of Listed Companies on Shenzhen Stock Exchange No. 2: Standardized Operation of Listed Companies on the ChiNext Market. We have formulated the Regulations on the Management of Information Disclosure Matters to clarify the workflow and responsibilities on information disclosure.

The Board of Directors is responsible for the information disclosure activities of the Company, and the Securities Affairs Department is the functional department managing the information disclosure efforts. In 2022, the Company disclosed a total of 147 periodic reports and temporary announcements, which provided true, accurate, complete and timely disclosure of the Company's business activities and material matters, ensuring that all investors had fair access to our information and effectively protecting the legitimate rights and interests of investors.

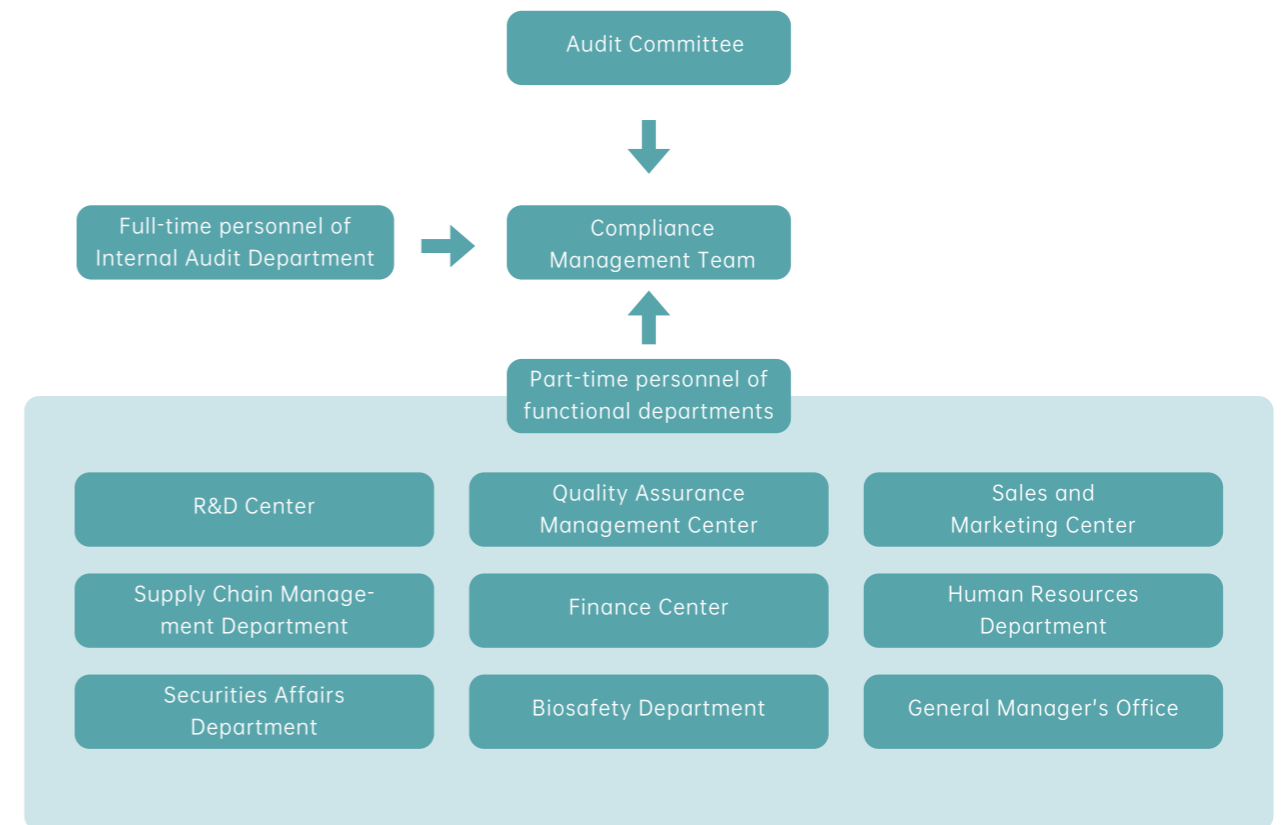
Compliance Operations

Internal Control Management and Compliance Operations

The Company attaches great importance to the construction of standardized governance and internal control system, and in accordance with the provisions of the Basic Standards for Enterprise Internal Control and its supporting guidelines, and on the basis of standardized corporate governance framework, it has continuously optimized the compliance management system by improving the compliance organization structure, establishing a sound compliance system and enhancing compliance awareness, and has established clear internal controls and necessary internal supervision mechanisms from the corporate management level to the level of each business process to guarantee operation in accordance with the law and standardized operation.

Improving the organizational structure of compliance management

A compliance management team has been established under the Audit Committee of the Board of Directors of the Company. The compliance management team consists of full-time and part-time team member, where full-time team members are from the internal audit department and part-time team members are senior staff from each functional department, who collaborate with the full-time team members to carry out compliance reviews in their respective sectors.



Establishing a sound compliance system and enhancing compliance awareness

In terms of compliance management regulations, the Company has formulated the Regulations on Compliance Management, which is applicable to the compliance management for all departments, subsidiary and employees of the Company, covering business areas such as transactions, safety and environmental protection, product quality, labor employment, finance, taxation, business partners, business innovation, asset management and intellectual property rights. Meanwhile, the Company starts from the guidance of the concept, improves the compliance awareness of all employees through compliance promotion, strengthens compliance supervision, promotes the effective implementation of compliance management, and continuously strengthens internal control and compliance management to escort the Company's stable operation.

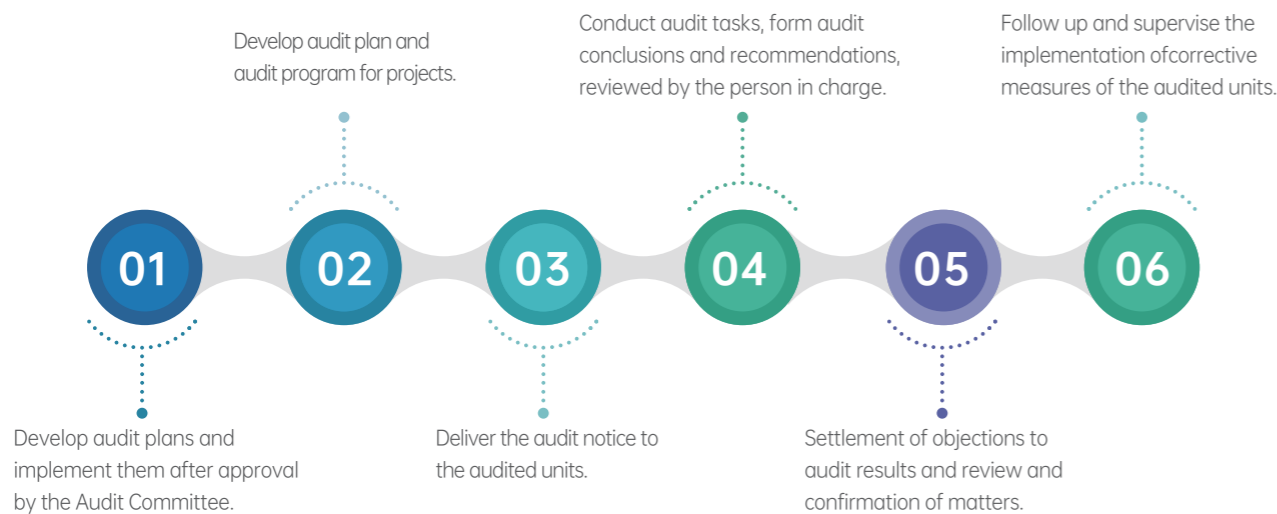
Risk Identification and Management

The Company identifies and systematically analyzes potential internal and external risks in its business activities in a timely manner, and constantly improves its risk management and internal control systems. In terms of risk identification, each department carries out risk identification in its daily work according to the regulations, establishes risk database and Risk Identification List, and regularly conducts self-inspection on risk management efforts to identify deficiencies and make improvements in a timely manner.

The Company applies an internal audit system to strengthen its internal risk management. In accordance with the Audit Law of the People's Republic of China, Guidelines on Self-regulation of Listed Companies on Shenzhen Stock Exchange No. 2: Standardized Operation of Listed Companies on the ChiNext Market and the Company's Internal Audit Regulations and Management Measures of Internal Audit Practice, the Internal Audit Department audits, supervises and inspects the production and operation activities, economic efficiency, asset security, business ethics and anti-corruption, and the establishment and implementation of the internal control system of the Company and its subsidiary, and makes suggestions and comments on the existing problems. The Internal Audit Department is independent and reports directly to the Audit Committee of the Board of Directors.

In 2022, the Internal Audit Department conducted audits and inspections of important matters of the Company as planned, without finding any violations of law or irregularities in the operations. Besides, the Company offers relevant information on risk control related laws and regulations and policy interpretation to employees through internal communication network from time to time to enhance their awareness of risk control.

Internal auditing procedure

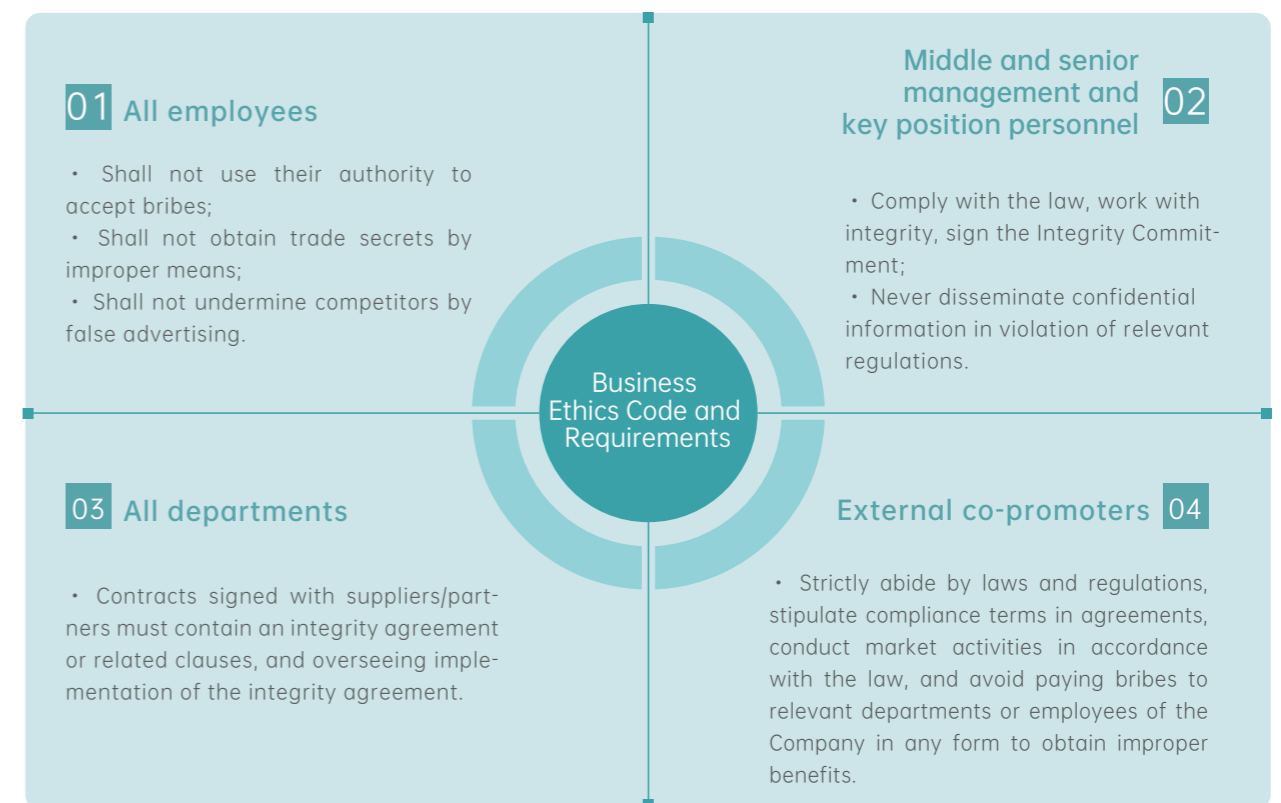


Anti-corruption and Business Ethics

The Company insists on honest and corruption-free operation and strictly abides by the relevant laws and regulations such as the Law of the People's Republic of China on Anti-Unfair Competition, the Law of the People's Republic of China on Anti-Money Laundering, the Law of the People's Republic of China on Protection of Consumer Rights and Interests and relevant standards such as ISO37001 Requirements and Implementation Guide for Anti-Bribery Management System. The Company adopts a zero-tolerance policy for unethical business practices, improves the long-term mechanism for business ethics management by formulating the Employee Handbook, Code of Professional Ethics, Rules for Integrity in Workplace, and Whistleblowing Management Regulations, implements control measures to enhance the ethical level of employees, requires employees to strictly comply with the relevant regulations on integrity office and anti-bribery, strengthens targeted management of key links, creates a culture of integrity, and builds a monitoring and reporting mechanism to encourage the employees of the Company to supervise the implementation of integrity governance, as well as to report suspected violations. Meanwhile, the Company requires employees in key positions to sign the Integrity Commitment. In 2022, all employees in key positions of the Company signed the Integrity Commitment.

In terms of external integrity cooperation, the Company attaches importance to the prevention of business ethics risks in the procurement process. In addition to establishing an integrity standardization mechanism with suppliers, the Company's internal audit department conducts annual audits on business ethics in the supply chain and organizes training on business ethics for supply chain employees.

In external cooperation such as cooperation with external promoters, clear requirements on business ethical practices are also put forward, and the behavior of all parties involved in the cooperation is regulated by signing Integrity Agreements or agreeing on anti-bribery clauses in the cooperation agreements.

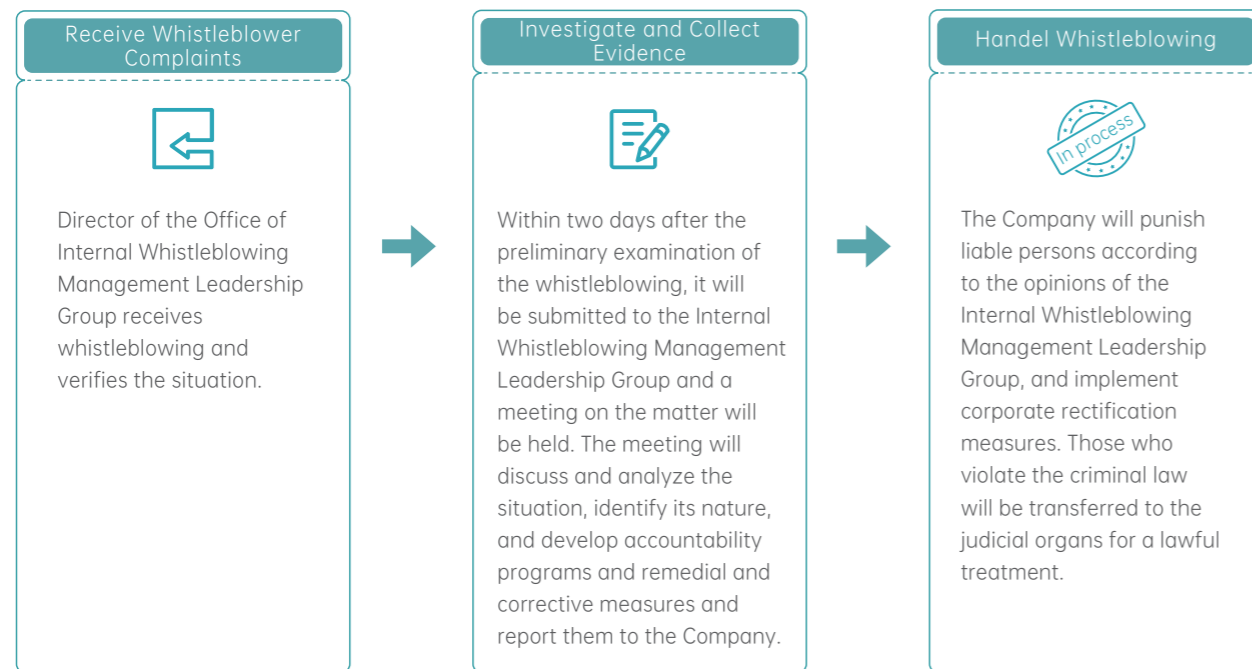


Compliance reporting and whistleblower protection

The Company has formulated the Whistleblower Management System, which specifies the reporting mechanism, management organization, reporting channels and acceptance procedures, and handling measures, etc. The Company has also established an internal whistleblower management leading group, headed by the Chairman. The Company encourages employees and partners to report suspected violations and crimes, which can be reported anonymously or in real names, and rewards for truthful reporting.

The Company keeps the personal information of the whistleblowers and the reporting information provided strictly confidential through the confidentiality management measures such as dedicated management of the reporting information and minimizing the number of informants to prevent the whistleblowers from being treated unfairly and to protect the legitimate rights and interests of the whistleblowers. For personnel who violate the confidentiality provisions and retaliate against whistleblowers, the Company takes a zero-tolerance attitude, the violators will be dismissed, terminated from the labor contract, or transferred to judicial organs if suspected of breaking the law according to the severity of the circumstances.

Procedures for handling whistleblowing



BioKangtai's Whistleblowing Channels

Whistleblower Complaint Receiver	Director of the Office of Internal Whistleblowing Management Leadership Group
Hotline	0755-26988630
Email	shenjibu@biokangtai.com
Channels	Letters, phone calls, emails, WeChat and visits, etc. We support anonymous reporting.

Creative Products to Benefit Human Health

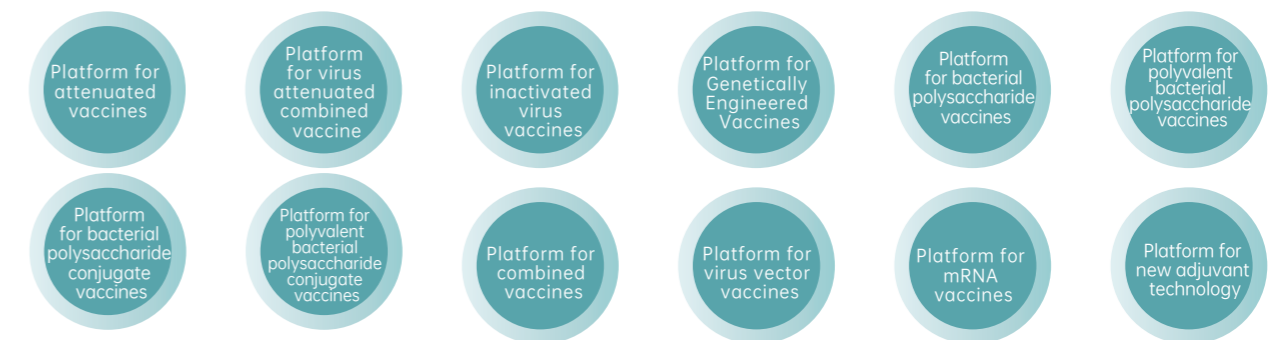
Continuous R&D and Innovation

R&D Strategy

The Company has been deeply engaged in the field of human vaccines for over 30 years, and always insisted on the R&D mode which is mainly of independent R&D, supplemented by cooperative R&D and secondary innovation of imported technologies. While strengthening the independent R&D and innovation ability, we pay attention to the cooperative relations with well-known enterprises and institutions in domestic and overseas, introduce advanced technology for absorption and use, enabling the Company to continuously improve its R&D ability. At present, we have mastered a number of core technologies such as engineered strain construction, cell culture, virus culture, exotoxin detoxification, polysaccharide purification, protein purification and polysaccharide-protein conjugation. We have R&D and production capability for viral vaccines, bacterial vaccines, genetically engineered protein vaccines, conjugate vaccines and combination vaccines. In particular, we are at the leading edge of the development of combination vaccines. At the same time, the Company has been keeping up with the international cutting-edge technology, continuously exploring the research and application of novel vaccine technologies and the establishment of new technology platforms, and reserved mRNA technology, adenovirus vector technology, new adjuvant technology and other product development platforms.

Meanwhile, the Company has established a diversity of R&D platforms, which complement each other and form a strong synergy effect, enabling the development of vaccine products and the construction of vaccine product portfolio in a more economical and efficient way, so as to ensure the continuous upgrading of vaccines and the successful development of novel vaccines.

12 Diversified R&D Platforms



Well-developed R&D Bases

- Shenzhen Novel Vaccine Engineering Laboratory
- Guangdong Therapeutic Hepatitis B Vaccine Laboratory
- Beijing Key Laboratory for Novel Conjugate Vaccine Technology
- Beijing Novel Vaccine Engineering Laboratory
- Postdoctoral R&D Center
- Beijing International Sci-Tech Cooperation Base for Novel Vaccines
- Beijing Novel Combination Vaccine R&D Center
- Academician Workstation

The Company places emphasis on the introduction of international advanced technology to enrich its technology strategies and reserves, and improves its independent innovation capability through introduction and absorption, promotes the achievement transformation of independent innovation technology, and develops itself from a one-way technology bringer to an overseas exporter of independent technology, so as to explore a way to transfer the independent innovation technology to overseas, and strive to improve the accessibility and affordability of vaccines worldwide.

Technology import & cooperation

Vaccine	Partner	Cooperation Strategy
Hepatitis B Vaccine	Merck, US	Merck provides the Company with the Hepatitis B Vaccine production process, manufacturing know-how, technical documentation, training, Recombinant Hepatitis B Vaccine strains and detailed process plans, which will only be used to meet mainland China's demand for hepatitis B vaccine. After the contract has been in effect for ten years, the product can be exported or sold in Hong Kong SAR, Macao SAR and Taiwan
Rabies Vaccine (MRC-5 cells) for Human Use, Freeze-dried	Sanofi Pasteur	Sanofi Pasteur grants BioMinhai a nonexclusive, non-transferable and non-sub-licensable license to use the materials and technology for the production of Rabies Vaccine (MRC-5 cells) for Human Use, Freeze-dried to develop, manufacture and market the vaccine in mainland China (excluding Hong Kong SAR, Macao SAR and Taiwan)
Inactivated Poliomyelitis Vaccine, Sabin Strains (Vero cell)	INTRAVACC, the Netherlands	INTRAVACC licenses to BioMinhai a non-exclusive, non-transferable technology for the production of inactivated poliomyelitis vaccine from Sabin strains and related assays; BioMinhai can use this technology for the production in China and worldwide distribution of inactivated poliomyelitis vaccine from Sabin strains and related combination vaccines
Mumps Vaccine Strains	IMUNA PHARM, A.S.	IMUNA PHARM, A.S. provides Mumps Vaccine Strains to BioMinhai for use in the production and sale of single or multiple doses of vaccine and monovalent or multivalent combination vaccines in mainland China for the purpose of preventing or treating human disease
Recombinant COVID-19 Vaccine (Y25 Adenovirus Vector)	AstraZeneca	AstraZeneca has exclusively licensed BioKangtai to develop, manufacture and commercialize the Recombinant COVID-19 Vaccine (Y25 Adenovirus Vector) in China (excluding Hong Kong SAR, Macao SAR and Taiwan); and to market the vaccine in Pakistan and Indonesia

Technology export & cooperation

Vaccine	Partner	Cooperation Strategy
13-valent pneumococcal polysaccharide conjugate vaccine	Biotis, Indonesia	BioMinhai supplies dual-vector 13-valent pneumonia vaccine solution to Biotis, and transfers the technology of vaccine preparation, packaging, product verification, etc; subsequently, the two sides will jointly promote the local production, registration and commercial operation of the dual-vector 13-valent pneumonia vaccine in Indonesia.

R&D Achievements

Relying on its R&D platforms and core technologies, the Company has overcome the barriers to the development of several heavyweight vaccines, and completed the development of several world-leading vaccines with independent intellectual property rights, to contribute for immunization health of the people.

Some important R&D achievements

60µg Recombinant Hepatitis B Vaccine (Saccharomyces cerevisiae): The world's first vaccine.

DTaP-Hib Combined Vaccine: The first domestically developed vaccine with the largest number of combined vaccines, and a major achievement of the National Hi-tech R&D Program (or 863 Program).

13-Valent Pneumococcal Polysaccharide Conjugate Vaccine: The world's first dual-vector 13-valent pneumococcal polysaccharide conjugate vaccine; it is also a global best-selling vaccine.

23-Valent Pneumococcal Polysaccharide Vaccine: one of the world's top 10 best-selling vaccines in 2021.

Diphtheria, tetanus, pertussis (acellular, component), poliomyelitis (inactivated) vaccine (adsorbed) and Haemophilus influenzae type b DTaP-HiB-IPV conjugate vaccine: The only domestic quintuple vaccine that has obtained the Notice of Approval for Drug Clinical Trials issued by the China National Medical Products Administration.



Extensive projects under research

At present, the Company has more than 30 projects under development, basically covering key vaccine types in the world. The major projects that have entered the registration procedures are as follows:

Serial No.	Vaccine Name	Registration Stage	Current Process
1	Rabies vaccine (human diploid cell) for human use, Freeze-dried	NDA under review	Completed on-site verification for registration and GMP compliance inspection
2	Live Attenuated Varicella Vaccine	NDA under review	Completed on-site verification for registration and GMP compliance inspection
3	Inactivated Poliomyelitis Vaccine, Sabin Strains (Vero cell)	Obtained Phase III clinical trial summary report	Obtained Phase III clinical trial summary report
4	Group ACYW135 Meningococcal Polysaccharide Vaccine	In the summary stage of clinical phase	Completed the on-site job of Phase III clinical research
5	Inactivated Hepatitis A Vaccine	In the summary stage of clinical phase	Completed the on-site job of Phase III clinical research
6	SARS-CoV-2 Vaccine (Vero Cell), Inactivated	Approved for emergency use in China	Obtained Phase III clinical trial critical data
7	Recombinant enterovirus A71 vaccine (Hansenula)	IND obtained, clinical phase in progress	Completed Phase I and II clinical trials
8	Recombinant Hepatitis B Vaccine (Hansenula)	IND obtained, clinical phase in progress	Completed Phase I clinical trial
9	Diphtheria, Tetanus and Acellular Pertussis Combined Vaccine (component), Adsorbed	IND obtained, clinical phase in progress	Phase I clinical trial in progress
10	Reassortant Rotavirus Vaccine, Live, Oral, Pentavalent (Vero Cell)	IND obtained, clinical phase in progress	Phase I clinical trial in progress
11	Quadrivalent influenza virus split vaccine	IND obtained, clinical phase in progress	Phase I clinical trial in progress
12	Diphtheria, tetanus, pertussis (acellular, component), poliomyelitis (inactivated) vaccine (adsorbed) and Haemophilus influenzae type b conjugate vaccine	IND obtained	Obtained notification of clinical trial approval
13	Diphtheria, tetanus, pertussis (acellular, component), poliomyelitis (inactivated) combined vaccine (adsorbed)	IND obtained	Obtained notification of clinical trial approval
14	MMR combined with live attenuated vaccine	IND obtained	Obtained notification of clinical trial approval
15	Adsorbed tetanus vaccine	IND obtained	Obtained notification of clinical trial approval
16	60µg Recombinant Hepatitis B Vaccine (Saccharomyces cerevisiae) (immunomodulator)	Has withdrawn the application for vaccine registration approval, currently in the clinical data self-examination phase	Clinical data self-examination in progress

Improvement of R&D and Innovation System

The Company attaches importance to the improvement of R&D and innovation system, and integrates research and innovation into its development strategy. In accordance with the Drug Administration Law of the People's Republic of China, Vaccine Administration Law of the People's Republic of China and Measures for the Administration of Drug Registration, the Company has established and improved R&D and innovation system, and provided continuous impetus for technology development and product innovation through various effects, including creating an innovative environment, perfecting the incentive mechanism for innovation and promoting the transformation of R&D results, so as to create its core competitiveness with innovation.

- Environment for Innovation

 - Implement innovation-driven strategy and incorporate innovation into the Company's medium- and long-term strategy
 - Encourage innovative approach, tolerance for failure, courage to expose defects and self-transcendence, to create a sound innovation culture
 - Set out clear targets and executable plans for innovation
 - Continuously increase investment in R&D. In 2022, the Company's R&D investment accounted for 31.47% of its operating revenue
- Incentive Mechanism for Innovation

 - Formulation of R&D Center Project Management Regulations, BioKangtai's Reward and Punishment System, etc., which stipulates the incentive system and measures for innovation
 - Encourage technological innovation, benchmark with international standards, promote heavyweight products, and foster innovation projects
 - Prioritize the allocation of resources required for innovation, including increasing investment in scientific research, information technology, and strengthening the recruitment of leading talents
- Innovation Transformation

 - Establish mechanisms and capabilities to promote the transformation of innovation results with commercial or social value
 - Form synergy between "product research and development" and "social needs" to achieve the virtuous cycle of "continuous innovation" by developing market-oriented products



Stable R&D Team

Adhering to the belief of "talent is the primary resource for corporate innovation", the Company has accumulated a large number of core technologies for vaccine R&D and production through nearly 30 years of R&D innovation and technology import and absorption, and has built up a crew with international vision, rich experience in vaccine development and management, as well as practical experience in industrialization. Among them, the key technicians have more than 10 years of experience in vaccine R&D and have undertaken more than 60 national, provincial and municipal projects; several project leaders have been awarded honorary titles such as "Leading Talents of Innovation Projects". In addition, the Company has hired experts as consultants to ensure the correct development direction, technical standards, R&D progress and quality of vaccines.

The Company has established comprehensive R&D talent incentive measures to promote product innovation and continuously recruit high-end R&D talents with both scientific and technical expertise.

R&D Talent Incentive Measures

1. Establish a long-term mechanism to motivate core R&D/key personnel. By the end of the reporting period, the Company has incentivized an aggregate of 913 core employees by implementation equity incentive plans (2017 restricted stock incentive plan and 2019 stock option incentive plan).
2. Provide incentives for R&D and registration, and awards for government projects.
3. Set up an award to reward people who recommend/recruit important talents.
4. Provide housing subsidies for talents in Nanshan District, Shenzhen, and solve their problems in children's enrollment, application of Shenzhen household registration and dwellings.
5. Apply for Beijing household registration for qualified talents: including non-Beijing-born talents, proven talents and talents who have studied abroad.
6. Leading talents in Daxing District: enjoy a reward of 500,000 yuan with other subsidies and benefits.
7. Outstanding young talents in Daxing District: enjoy benefits such as funding for R&D projects.
8. Returned overseas talents in Daxing District: enjoy an allowance for living expenses and preferential rental housing, etc.

R&D Ethics

The Company strictly follows R&D ethics in research and innovation, and implements the ethical principles of regulatory compliance, human and animal subject protection, integrity, data reliability, intellectual property protection, and openness in its R&D practices.

Ethical principles for scientific research

Regulatory Compliance	<ul style="list-style-type: none"> • The whole process of R&D should refer to and follow the relevant laws and regulations.
Human and Animal Subjects Protection	<ul style="list-style-type: none"> • Clinical trials of drugs follow the principles of the Declaration of Helsinki of the World Medical Association and related ethical requirements, and the rights and safety of subjects are the primary consideration; • Follow the 3R principles (reduce, replace and refine) in the use of laboratory animals and research, concern for the welfare of laboratory animals, and treat them well.
Integrity in Scientific Research	<ul style="list-style-type: none"> • Follow the scientific standards and the principle of honesty and trustworthiness.
Reliable Data	<ul style="list-style-type: none"> • The whole process of R&D should be recorded, and the records must be timely, true, standardized and complete.
Intellectual Property Protection	<ul style="list-style-type: none"> • Respect for patents, copyrights and other forms of intellectual property rights.
Openness and sharing	<ul style="list-style-type: none"> • Share research results and scientific resources openly within the permitted range.

Intellectual Property Protection

We have attached great importance to the protection of intellectual property rights, strictly complied with the Patent Law of the People's Republic of China, the Trademark Law of the People's Republic of China and other relevant laws and regulations, and secured our legal and effective intellectual property rights through patent application and trademark registration to maintain our reputation and core competitiveness. BioMinhai, the subsidiary of the Company, has established an enterprise intellectual property management system in accordance with the national standard named Enterprise Intellectual Property Management Regulation (GB/T29490-2013) and successfully obtained the certification of intellectual property management system.

When engaging in external cooperation, the Company strictly abides by the legal procedures for technology importation and patent licensing, and signs technology licensing and R&D cooperation agreements with its partners, which clearly stipulate the rights and obligations of both parties and the ownership of R&D intellectual property rights. The Company promotes cooperation matters according to the agreements to avoid relevant disputes in respect of intellectual property rights. During the reporting period, the Company did not have any incident related to the infringement of others' intellectual property rights, and there was no litigation case related to intellectual property rights.

Strict Control of Quality and Safety

Quality Control System

The Company has always regarded product quality as the line of life since its establishment, and always gives top priority to product quality. In accordance with the Drug Administration Law of the People's Republic of China, the Vaccine Administration Law of the People's Republic of China, the Good Manufacture Practice of Medical Products and related laws and regulations, and standards for medical product registration, the Company has established a comprehensive quality management system covering the whole life cycle of products, which sets strict quality control standards for each key part of R&D, production, storage and distribution of products, and formulated targeted quality management procedures to ensure that all requirements for safety, efficacy and quality control in medical product regulations and registration standards are systematically implemented in the process of vaccine R&D, production, quality control, product release, storage and transportation, and ensure that all procedures in raw material inspection, product R&D, production and distribution are in compliance with the intended use and registration standards, so as to strictly ensure product quality in line with standards.

At the same time, the Company actively absorbs the cutting-edge technology and advanced quality management concepts from international organizations and well-known enterprises such as WHO, Sanofi-Pasteur and Merck, as well as continuously improves and perfects the quality control system by benchmarking international advanced standards to constantly enhance its quality control ability for ever-growing upgrade of product quality. During the reporting period, the Company has obtained declaration of compliance issued by the EU quality authority for recombinant COVID-19 Vaccine (Y25 Adenovirus Vector) manufacturing base; the vaccine manufacturing base in Guangming District, Shenzhen of the Company has been granted declaration of compliance on GMP issued by the Philippine Food and Drug Administration, indicating that the Company's quality management system is in line with international standards.



Quality management policy

To strictly enforce our regulations, ensure the authenticity of original data, deal with every problem in time, ensure strict monitoring of defective products, and never slacken GMP management.

Product lifecycle quality management system

Source Management

- Material Management Regulations and Supplier Management Regulations have been formulated for standardized management.
- Acceptance of materials according to the bill of materials and the requirements of quality standards. The process includes procurement, acceptance, inspection, storage, release and use management.

- Develop the Production Quality Control Management Regulations and implement production monitoring based on it.
- In accordance with the regulations, process parameters are evaluated and continuously tracked to identify abnormal trends and achieve all-round data monitoring.

Production Monitoring

Quality Inspection

- Develop Sample Receipt, Inspection and Reporting Procedures, Quality Control Department Standard Management Regulations, and Quality Control Department Reagent Management Regulations and strictly follow them.
- Control product quality by conducting quality testing involving standards, reagents, sample retention and laboratory management, etc.

- Develop Assured Management Regulations, Sales Management Regulations, and Cold Chain Transporter Management Regulations and strictly enforce these regulations.
- Products are inspected and approved by the Quality Authorized Person before leaving the factory. The products are transported according to the cold chain transportation requirements, ensuring that they are delivered as required and well tracked in the market.

Release and Product Transportation

Vaccine Labeling Management

- Develop Printing and Packaging Materials Management Regulations and strictly enforce the regulations.
- The design samples of product labels need to be approved by the person in charge of production management and quality management, the person in charge of quality management and the person authorized for quality. After the product labels are purchased and printed according to the regulations, they need to be examined by the quality management center before putting them into use.

● Digital construction of quality management

The Company has established an electronic system for vaccine traceability, which is connected with the national vaccine e-traceability platform to achieve full traceability and verifiability throughout the process of vaccine production, quality control and product release, storage and transportation. At the same time, the Company actively promotes the construction of digital system for product production and inspection to accelerate the digital transformation of vaccine production and achieve more efficient, real-time and traceable quality management. The Company's laboratory information management system, production and manufacturing execution system, group version of enterprise resource management system, etc., have been launched in succession, and have gradually realized the whole link of information management and control, whereby achieving accurate and reliable data management.

LIMS
Laboratory Information Management System

- The Company's LIMS covers batch management, stability management, instrument management, standards management, reagent management, and laboratory survey management. The system enables efficient management of laboratory resources and more reliable laboratory data management.
- The LIMS has been launched successfully.

MES
Manufacturing Execution System

- The Company's MES covers recipe management, production order management, electronic batch records, batch analysis, material management, and equipment management. The system enables the generation of electronic batch records to ensure good traceability in all aspects of production.
- The MES has been launched successfully.

● Quality audit, supervision and inspection

The Company attaches great importance to internal quality supervision and inspection, and carries out comprehensive self-inspection every year. Through self-rectification and self-inspection of the whole process of quality management, the Company timely discovers the deviation and risk of quality management, and timely improves the quality management system to enhance the quality management level. Meanwhile, the Company accepts the audit of regulatory authorities at national, provincial, municipal and district levels every year, and the audit results for 2022 are all satisfactory.

Quality audits by government departments

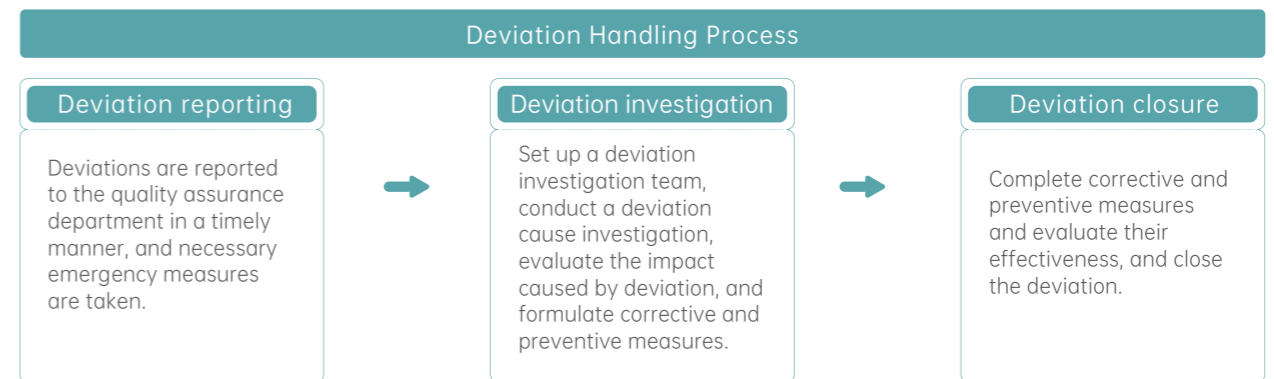
- At present, regulatory authorities supervise and monitor the quality of our vaccines by means of supervision and inspection, which are conducted by national, provincial and municipal medical product administrations. The Company actively rectifies the problems raised by regulatory authorities in the process of supervision and inspection and improves the quality system continuously.
- In 2022, BioKangtai received vaccine inspections and GMP follow-up inspections from the National Medical Product Administration and Guangdong Provincial Medical Product Administration for three times, all of which were passed.
- In 2022, BioMinhai received vaccine inspection, GMP compliance inspection, on-site verification of vaccine registration and pharmacovigilance test from the National Medical Product Administration and the Beijing Municipal Medical Product Administration for five times, all of which were passed.

Regular internal supervision and inspection

- The Quality Assurance Department conducts quality supervision and inspections according to the prescribed frequency, and checks the key control points of production batches. Meanwhile, annual self-inspection is carried out to cover the whole process of production and quality control (material management, production, quality control, continuous improvement, circulation, etc).
- The Quality Assurance Department carried out at least one supervision and inspection to the production workshops or departments once a week, and every batch of products was supervised and inspected in production. The Company completed the annual quality self-inspection audit as required, and the identified problems were rectified and improved in a timely manner.

● Corrective and preventive management

The Company has formulated regulatory documents such as Deviation Management Regulations, Regulations on Change Control, Regulations on Corrective and Preventive Measures and Regulations on Customer Complaint Handling in accordance with the GMP management requirements to implement deviation and change management and risk control in production to ensure that the products meet the intended use and vaccine registration requirements. Moreover, we have established a GMP self-inspection team to conduct comprehensive self-inspection at least once a year, with comprehensive reports generated, corrective and preventive measures for defects formulated and implemented, and the effectiveness of the measures continuously tracked. By means of GMP self-inspection, the Company has made continuous improvement and refinement in quality control and management, keeping the product quality stable.



● Quality training for staff

The Company has established a quality training system, covering new employee training, basic quality training, thematic training, external thematic training, and legal and regulatory training, to enhance the quality management awareness of staff in each position. In 2022, the Company conducted more than 3,000 training sessions for employees on product quality and safety, covering laws and regulations, personnel control, equipment management, material control, pollution control and aseptic assurance, quality assurance, data reliability, pharmacovigilance, and job-specific skills, with a 100% pass rate for those who participated in the training.

● Examples of training sessions in 2022

- Thematic Training on Quality Management Module**

In December 2022, BioKangtai organized a thematic training session on the QM module, mainly facing the management staff at the primary level. The training session allowed staff from all departments to further consolidate their knowledge on quality management and promoted the effective implementation and continuous improvement of quality management.
- Training on Contamination Control Strategy**

In June 2022, BioKangtai participated in the training on interpretation of the Technical Guide for Electronic Recording of Vaccine Production and Inspection (draft) held by China Association for Vaccines. The organizer of this training invited many industry experts. Through this training, the Company had a precise understanding of relevant laws and regulations, and further promoted the standardization, scientificity and forward-looking of its information construction with a positive effect.
- One-to-one Training on Microbiology**

In August 2022, BioMinhai invited experts to conduct one-to-one training on microbial identification, microbial data deviation investigation and microbial pollution control for relevant departments. Through targeted training, the understanding of microbial knowledge and relevant regulations and requirements was deepened.
- Thematic Training on Clean and Disinfect in Clean Areas**

In November 2022, BioMinhai organized training on environmental monitoring, use of disinfectant and verification to standardize the disinfection of cleaning agents in clean areas, effectively reduce the risk of microbial contamination, and promote the effective implementation and continuous improvement of quality management.

Pharmacovigilance Management

Drug safety is a major livelihood and public safety issue, related to people's health and social harmony and stability. The company attaches great importance to the product lifecycle pharmacovigilance management. According to the provisions of the Drug Administration Law of the People's Republic of China, the Vaccine Administration Law of the People's Republic of China, the Measures for the Administration of Adverse Drug Reaction Reporting and Monitoring, and the Guidelines for Good Pharmacovigilance Practices, the Company has continuously improved the pharmacovigilance system, and monitors, identifies, evaluates and controls suspected adverse events following immunization (AEFI) through its effective operation and maintenance.

Establishment of special pharmacovigilance administration departments

The Company has established a Committee on Safety of Medicines (CSM), set up a Pharmacovigilance Department, and applied the full-time pharmacovigilance staff and pharmacovigilance system (PVMS) to form a whole-process and three-dimensional drug safety risk monitoring mode, which helps ensure the smooth development of pharmacovigilance activities, timely deal with and solve the problems with risks, and guarantee the safe use of drugs for consumers. The Company accepts the pharmacovigilance inspection of the national government regulatory department every year, all of which were passed.

Department	Functions
Committee on Safety of Medicines (CSM)	The Committee on Safety of Medicines (CSM), as the decision-making body for pharmacovigilance activities, is responsible for major risk identification, disposal of major or emergency adverse events, risk control decisions, and other major matters related to pharmacovigilance.
Pharmacovigilance Department	The Pharmacovigilance Department, as an independent functional department, has the following main responsibilities: <ul style="list-style-type: none"> • Daily operation and management of the pharmacovigilance system, including the establishment and maintenance of the system; • Monitoring, reporting and organizing investigations of adverse events following immunization (AEFI); • Management of vaccine safety signals; • Development and evaluation of risk minimization measures; • Development and implementation of pharmacovigilance plans; • Preparation and submission of periodic safety updates for vaccines and annual reports for marketing licensees, etc; • Preparation and submission of periodic safety updates for vaccines and annual reports for marketing licensees, etc; • Pharmacovigilance management and coordination with internal audits; • Organize pharmacovigilance-related education and training, etc.

Improvement of the pharmacovigilance system construction

In terms of system construction, according to the new regulations issued by the national regulatory authorities, the Company has actively improved the construction of the pharmacovigilance related document system. At present, the Company has developed 39 procedures related to pharmacovigilance, fully covering the requirements for all pharmacovigilance management procedures such as post-marketing pharmacovigilance and pharmacovigilance during the clinical trial; at the same time, in response to the requirements of Guangdong Provincial Drug Administration, we assisted Guangdong Provincial Adverse Drug Reaction Center in drafting and completing the Pharmacovigilance Inspection Manual of Guangdong Province, which was unanimously praised by the regulatory authorities.

Key links of pharmacovigilance

Key Links	Quality Procedures	Measures and Actions
Clinical Research Pharmacovigilance	Strictly comply with the Guidelines for Good Clinical Practices and related regulations to fully protect the rights and interests of subjects.	The Company's Pharmacovigilance Department conducted pharmacovigilance management for the overseas phase III clinical studies of its COVID-19 vaccine by establishing a clinical study department in accordance with the requirements of relevant rules to ensure the smooth conduct of clinical studies.
Pre-marketing Preparation of Vaccines before launch	Procedures such as the Vaccine Risk Management Plan were established for regulating the pre-marketing risk assessment.	The Company has formulated the Risk Management Plan for SARS-CoV-2 Vaccine, the Work Plan for Emergency Use of SARS-CoV-2 Vaccine, the AEFI Monitoring Plan for Emergency Use of SARS-CoV-2 Vaccine and the Work Plan for Post-Emergency Use of SARS-CoV-2 Vaccine to regulate the pharmacovigilance efforts after emergency use of SARS-CoV-2 vaccine.
AEFI Monitoring and Reporting	Documents such as Monitoring and Handling Procedures for Suspected Post-marketing AEFI and Procedures for Handling Pharmacovigilance Data are formulated for the monitoring and handling of AEFI and data management.	The Company obtains AEFI information through information sources such as the National Health Commission of the PRC and the China Center for Disease Control and Prevention and processes it according to regulations. The Company has launched and completed validation of a pharmacovigilance data management system for managing safety-related data, which is a web-based application for collecting AEFI reports during the clinical trial phase and post-marketing AEFI reports.
Risk Assessment and Control	Formulate the Operational Procedures for Vaccine Risk Assessment and Control and Operational Procedures for Vaccine Risk Communication for vaccine risk assessment and control.	Assess the safety risks of novel vaccines, analyze the influencing factors, describe the risk characteristics, determine the type of risks, and appraise whether risk control measures are needed.

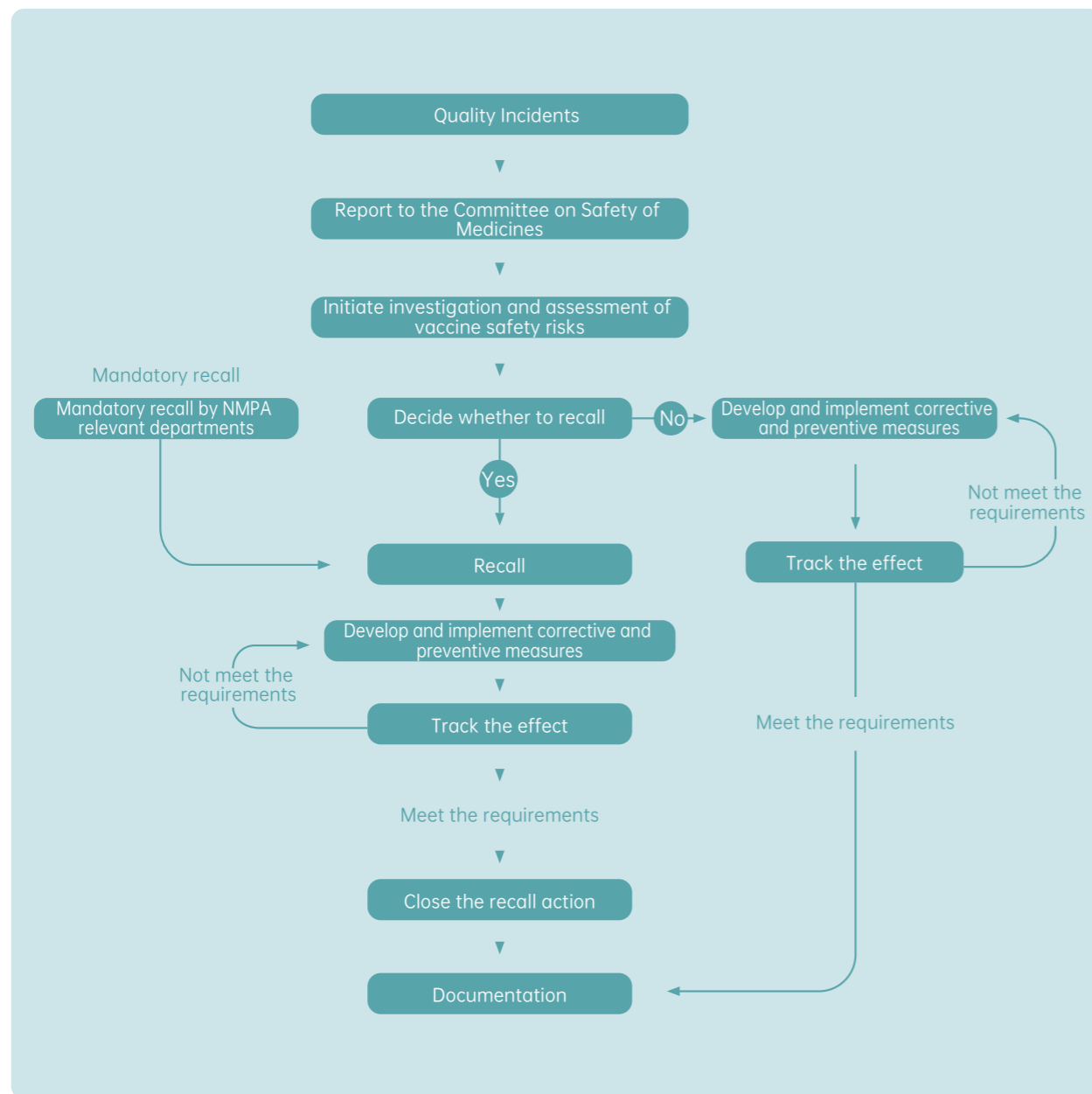
Training to improve pharmacovigilance awareness

In order to regulate the management of pharmacovigilance and enhance the awareness of all staff, the Company formulated the Training Procedures for Pharmacovigilance Management, and included the training into the Annual Training Plan of the Company, focusing on the special training of staff, including the pharmacovigilance training of new staff and the annual pharmacovigilance training of all staff. For the staff of our marketing center, the Company will conduct at least one adverse reaction information collection and processing training every year. In 2022, the Company organized more than 54 internal and external trainings on pharmacovigilance, and all related trainings and examinations were incorporated into the Company's GVP training management system.

Product Recall Management

The Company has formulated the Product Recall Management Regulations, detailing the recall procedure flow and the requirements of each link. Since its establishment, the Company has not experienced any recall ordered by the medical product administrations or active recalls. The Company conducts a mock recall at least once every two years to evaluate and ensure the effectiveness of the product recall system.

Product recall process of the Company



Supply Chain Management and Audit

Supply chain quality management is an important part of product quality management. The Company continues to carry out regular quality management on suppliers to ensure the quality of products and solutions from the source. The Company has formulated the Supplier Management Regulations and the Material Management Regulations, which clearly stipulate the requirements and standards for supplier audit, new admission, changes, auditing, quality assessment and file management and ensure the selection of qualified suppliers to satisfy the quality requirements of the Company. In daily management, the Company conducts regular quality audit of suppliers, dynamically tracks their quality situation, assists suppliers to find problems and urges them to continuously improve their quality management system and promote their efforts for the improvement of quality management so as to ensure product quality. For key raw and auxiliary material suppliers, the Company reserves 2 or 3 backup suppliers to ensure proper market supply under unexpected circumstances.

Based on the materials to be used for production provided by suppliers, the Company classifies materials into six grades of quality risk control: A1, A2, B1, B2, C1 and C2, and implements different quality control strategies accordingly.



Supplier Onboarding

- Strict management of suppliers, set general qualification requirements and qualification requirements for certain materials, strictly audit the business qualification of suppliers and quality of materials to ensure compliance with the quality and technical standards of production;
- The Supplier Management Regulations specifies procedures including initial supplier selection and data review, sample evaluation, process verification, product stability research, data compilation and audit, and supplier approval;
- Conduct written audits and on-site audits of new suppliers to assess their own quality assurance capability, in addition to on-site audits of the supplier's own quality management system, production safety management measures, and production equipment conditions;
- The Company signs Quality Assurance Agreement with suppliers of A1, A2 and B1 grades to ensure that the products provided by them meet the Company's quality standards and requirements.

Supplier Evaluation and Audit

- The Company formulates an audit program every year to carry out audits and evaluations according to the classification of suppliers;
- Audit types and frequency: there are regular on-site audits, written audits and remote video audits; the frequency is once a year or once every two years according to the importance of the suppliers; the suppliers of the auxiliary materials and internal packaging materials in A1 complete at least one audit per year;
- Audit coverage: supplier qualifications, quality management systems and regulatory measures;
- Enhancement measures for suppliers: regularly evaluate the quality management system of suppliers, supervise the improvement of deficiencies, and discontinue or revoke the qualification of suppliers who do not meet the requirements.

Enhancing Service Efficiency

Customer Services

The Company has built perfect customer communication channels and complaint management procedures, and collects customer feedback through 400 customer service hotline and other ways, thus providing timely and effective communication access and solutions for customers. The Company has formulated the Customer Feedback and Complaint Management Procedures to standardize the workflow of solving customer feedback. After receiving customer feedback, the Company first carries out internal communication and investigation for the issues, and organizes relevant departments to formulate corrective measures and preventive measures to ensure timely and proper resolution of the issues raised by customers.

Customer satisfaction is one of the indicators to measure the performance of product and service quality. The Company continuously conducts annual customer satisfaction surveys and obtains feedback from customers on its products and services through the Customer Feedback Collection Form, so as to fully understand customer opinions and suggestions and constantly improve the quality of service. In 2022, the Company conducted satisfaction surveys with disease control and prevention organizations as customers with generally high satisfaction scores.

Customer feedback management procedure



Information Security and Customer Privacy Protection

The Company strictly abides by the Personal Information Protection Law of the People's Republic of China, the Data Security Law of the People's Republic of China and other relevant laws and regulations, and has formulated the IT-01-001-Information Management Regulations and the C-00-I-0-009 Personal Information Security Management Regulations, which provide strict data security management and personal information security. In 2022, the Company carried out an assessment on information security multi-level protection in accordance with the Information Security Multi-Level Protection Management Rules, which provides support for information security.

In terms of customer privacy protection, the Company implements a strict confidentiality agreement system and sets exclusive permissions for customer information. The information department will regularly check the permissions, and make timely corrections to any discovered problems. We attach great importance to cybersecurity and privacy protection, and has added security measures for the server to enhance privacy protection. In 2022, the Company did not have any incidents of customer information or privacy leakage.

The Company invites external experts to conduct relevant training to improve employees' awareness and recognition of information protection. In April 2022, the Company invited Guangming Internet police and technical staff of Shenzhen NST Technology to conduct information security training for all employees, mainly including knowledge on network security prevention, ransomware prevention, personal information protection, and anti-telecommunications fraud, to improve employees' awareness of cybersecurity and personal information protection.



Responsible Marketing

As for the marketing, the Company strictly abides by the Advertising Law of the People's Republic of China, the Trademark Law of the People's Republic of China and other relevant laws and regulations, and industry norms. The Company actively carries out diversified academic exchanges and promotion activities about product knowledge, disease prevention, vaccine immunization schedule, and always insists on ethical, scientific and objective promotion to ensure that regulatory authorities, medical professionals and customers receive product and academic information in a timely, truthful and rigorous way.

Responsible Academic Promotion

With strictly adhering to the principles of accuracy, clarity and transparency of marketing, the research results, clinical practice information and vaccination prevention of the Company is delivered to the public through various means, such as academic conferences, expert lectures, online and offline knowledge promotion, enabling the public to better obtain information about vaccine products and better understand the knowledge of vaccine-related diseases. In addition, the information published on professional pharmaceutical magazines by the Company is in compliance with the requirements of the Pharmaceutical Advertising Laws of Guangdong Provincial Food and Drug Supervision Administration, and has obtained relevant advertising approvals.

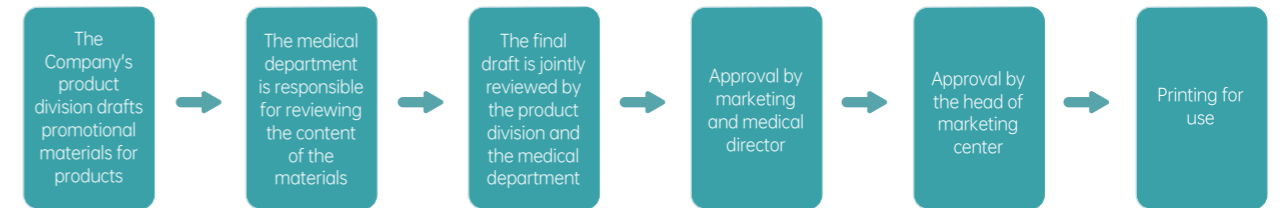


Three principles of responsible marketing

<p>Accuracy</p> <p>Promotional or stated information is consistent with approved labels, with no advertising or promotional materials that have not been approved by compliance and marketing departments.</p>	<p>Clarity</p> <p>Product information used or disseminated to the public is complete and clear, with no false or misleading statements.</p>	<p>Transparency</p> <p>The products' performance and safety information is described comprehensively, without concealing its potential risks, so as not to cause any form of information inequality or misinterpretation of information.</p>
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Strict Review of Promotion Materials

In order to standardize the compliance review of promotional materials, the Company has formulated the Regulations on the Production, Collection and Management of Promotional Materials and Items, which specifies the production process and approval procedures for promotional materials. The promotional materials for products were prepared by product division, and reviewed by medical department, then jointly re-checked by marketing and medical director. It can be only put into use after the approval by the head of marketing center. Review and check at stages are placed for ensuring the accuracy, clarity and transparency of promotional materials or declarative information.



Trainings on Responsible Marketing

As focusing on strengthening the responsible marketing awareness of the sales staff, through online and offline approaches, the Company organizes trainings on responsible marketing and related compliance matters for employees in the sales positions in accordance with the requirements of the Sales Management Regulations, in respect with related laws and regulations, internal regulatory, compliance and integrity, product related knowledge, etc. With regard to product information, the sales staff shall not disseminate functions and information beyond the product description, and should never exaggerate the functions of products and technologies or conceal their potential risks.



Establish Vaccine Science Popularization Base

In December 2019, the first vaccine science popularization base of Chinese Preventive Medicine Association was officially inaugurated in BioKangtai, which was jointly built by BioKangtai and Chinese Preventive Medicine Association as a leading, authoritative and professional vaccine science popularization base in domestic to integrate vaccine science resources, give full play to professional advantages, carry out academic exchanges, and popularize vaccine technology and knowledge scientifically, deepen the public's scientific understanding of vaccines, as well as protect the healthy development of China's vaccination.

Protecting Environment Adhering to Green Development

Adhering to the concept of resource conservation and economic and environmental sustainable development, BioKangtai has developed a number of management systems and procedures in accordance with the Environmental Protection Law of the People's Republic of China, the Law of the People's Republic of China on the Prevention and Control of Atmospheric Pollution, the Law of the People's Republic of China on the Prevention and Control of Environmental Pollution by Solid Waste, the Law of the People's Republic of China on the Prevention and Control of Water Pollution and local laws and regulations, to continue to build and improve the environmental management system, strengthen the policy guarantee of environmental management, give priority to the comprehensive utilization of resources, energy conservation and emission reduction, and strictly implement environmental protection requirements such as emission permits and pollutant discharge standards. With the aim to save resources, reduce energy consumption, pollution and carbon, improves quality and efficiency, BioKangtai actively fulfills the social responsibility of environmental protection and adheres to green development through upgrading equipment and facilities, energy conservation and consumption reduction, rational use of resources and effective waste management measures. In 2022, BioMinhai was underwent a comprehensive green credit evaluation by Ecological Environment Bureau of Beijing Daxing District on the environmental compliance, pollution control and emission reduction, low-carbon cycle, scientific management and social contribution, and was honored as the "Five-star Green Enterprise in Daxing District".

Improving Environmental Management System

Environmental Management

The Company takes "strict pollution control, scientific management, energy conservation and emission reduction, and continuous improvement of energy efficiency" as its management principles and has established an environmental management structure with well-defined responsibilities. The Environmental Health & Safety (EHS) committee is the Company's environmental management body, and its Office of Safety, Health and Environmental Management is responsible for the regular environmental management. We require all employees to sign a letter of responsibility for EHS targets, and associate environmental management performance with the quarterly performance appraisal of middle and senior management.

Person in Charge	Main Responsibilities
Director of EHS Committee	<ul style="list-style-type: none"> Responsible for the approval of the Company's annual environmental targets and related policies
Deputy Director of EHS Committee	<ul style="list-style-type: none"> Responsible for the approval of environmental protection issues within the scope of responsibility Responsible for the approval of environmental protection evaluation results
Heads of Departments	<ul style="list-style-type: none"> Responsible for organizing and supervising the implementation of environmental protection efforts in all teams and departments of the Company Responsible for the evaluation of the environmental protection efforts by teams and departments
Office of Safety, Health and Environmental Management	<ul style="list-style-type: none"> Responsible for the implementation of the departmental environmental protection efforts, and break down the department's annual environmental protection goals to each team Responsible for supervising the implementation of environmental management in the department, and organizing self-assessment
Heads of Teams	<ul style="list-style-type: none"> Responsible for the implementation of the annual environmental protection efforts of the team Responsible for the self-assessment of the completion of the team's annual environmental protection goals

Environmental Management Procedures

The Company strictly abides by relevant laws and regulations on environmental protection, and has formulated a series of environmental management systems and procedures, such as Environmental Protection Management Regulations, Solid Waste Management Regulations, Operating Procedures for Wastewater Treatment System, and Management Procedures for Water Quality Monitoring in Wastewater Treatment Stations, to standardize environmental monitoring, pollution prevention and control, comprehensive utilization of Three Wastes (industrial wastewater, waste gases and residues), "Three Simultaneities" for construction projects, and management and maintenance of environmental protection facilities, so as to ensure the effective operation of environmental management.

Environmental Impact Analysis

The main business of BioKangtai is the R&D, production and sales of vaccines for human use. Through the use of biological and chemical raw materials, vaccine production is conducted with processes of cell fermentation, harvesting, crushing, purification, inactivation and adsorption, consuming energy such as electricity, natural gas and steam, and generating waste water, waste gas, harmless waste and hazardous waste. The Company complies with the provisions of the Pollutant Discharge Permit, monitors and records pollutants by manual and automatic methods, and properly disposes of all types of solid waste to strictly control the impact of production discharges on the environment.



Pursuant to the Implementation Measures of Shenzhen Compulsory Liability Insurance for Environmental Pollution, BioKangtai has proactively responded to the compulsory liability insurance system for environmental pollution management, accepted a third-party assessment and purchased compulsory liability insurance for environmental pollution to avoid environmental incidents by means of third-party risk management and environmental management.



Tackling Climate Change

Emission Source Identification and Carbon Accounting

The main types of energy consumed by the Company in production are electricity, steam, natural gas and minor amounts of gasoline, diesel and liquefied petroleum gas (LPG). Electricity for production is provided by the city's public power grid, mainly used for production equipment; steam are used mainly for utilities and equipment supporting production; natural gas is used mainly for boilers; gasoline and diesel are used for vehicles of the Company, and diesel is also used for emergency power generation and regular maintenance of generators; LPG is used for the Company canteens. We identified the carbon emissions for Scope I and Scope II as follows:

Scope of GHG Emissions	Source	Process
 Scope I	Natural gas	Boilers and canteens
	Diesel	The Company's transportation vehicles and generators
	Gasoline	The Company's passenger vehicles
	LPG	The Company's canteens
 Scope II	Purchased electricity	Production department, auxiliary production department and other departments
	Steam	Public works and equipment

In 2022, to further understand the main sources of carbon emissions and emission data, BioKangtai and BioMinhai commissioned Shenzhen Carbonet Technology Development Co., Ltd. and China Quality Certification Centre, respectively, to conduct a carbon accounting, which determined their organizational boundaries and carbon emissions.

Energy Management

The Company attaches importance to energy management. Through the establishment and improvement of energy management team, energy management system, energy measurement system and energy-saving performance assessment and training, we constantly improve our energy management capability and the employees' awareness of energy saving and emission reduction.

In 2022, the Company commissioned Greem Industrial (ShenZhen) Co., Ltd. to conduct an energy audit, formulating an energy audit report, an energy planning report, an energy saving diagnosis report and an energy efficiency benchmarking report. Through the energy audit, we have further understood our own energy efficiency and improvement potential in production, thus laying the foundation for improving energy efficiency.

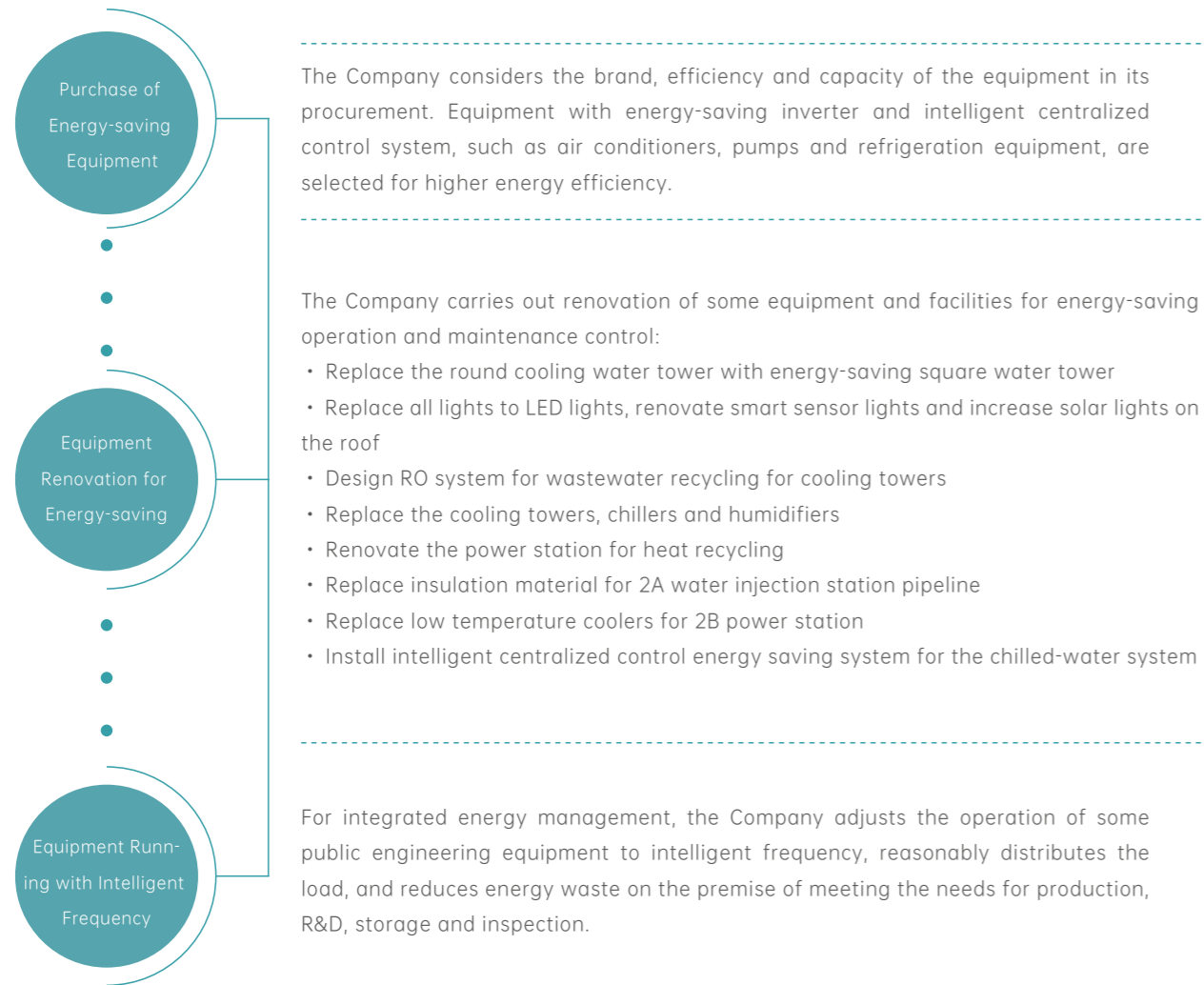
Energy management system

Energy Management Team	The Company has an energy management team, headed by the production manager, with members from different departments. There is an energy consumption statistician in the team responsible for the Company's energy consumption statistics, which are archived in the energy utilization and management platform. Meanwhile, the Company has carried out energy audit and clean production to continuously improve its energy management level.
Energy Supervision System	The Company strengthens energy control based on its energy management system and conducts regular supervision, inspection and assessment.
Energy Statistics	Energy statistics is an important aspect of the Company's energy management. To this end, we have set up statistical units at three levels: company, area and workshop. Energy statisticians have been set up at each level for energy statistics and reporting to the energy management team. By establishing a statistical account of energy consumption, we have realized IT-based management of energy consumption at all levels, which is conducive to statistical analysis of energy consumption.
Energy-saving Performance Assessment	The Company has established an accountability system for energy-saving targets and an energy saving evaluation system, taking the annual energy-saving target and the monthly energy consumption data as the energy consumption pointer. Meanwhile, the Company has collected the energy-saving management measures of each workshop, set up projects, make modifications and evaluate their effectiveness; each energy-using department is assessed, and the assessment results are directly related to the monthly performance and annual assessment performance of the responsible person.
Energy Saving Training	The Company actively carries out publicity and training on energy saving, and holds quarterly energy consumption analysis meetings to discuss problems in the Company's energy consumption and management, as well as the orientation for energy saving and clean production.

Improve Energy Efficiency, Reduce Cost and Increase Efficiency

The Company has established a multi-dimensional system of energy saving and emission reduction measures, involving the purchase of energy-saving equipment, renovation of equipment for energy saving and equipment operation with intelligent frequency to meet the requirements for sustainable development. In addition, the Company carries out leakage inspection in daily equipment management and regularly maintains the equipment and facilities to ensure their integrity and avoid energy waste.

Measures for energy efficiency improvement



Reducing the Environmental Impact of Operations

The Company strictly complies with the relevant laws and regulations, such as the Measures on the Administration of Pollutant Discharge Permits, and applies for Pollutant Discharge Permit. We conduct regular pollution discharge inspection and fill in quarterly and annual implementation reports on the National Management Platform for Pollutant Discharge Permits in accordance with relevant regulations. In 2022, the Company did not receive any relevant administrative penalties for excessive pollutant discharge.

Wastewater Management

As a vaccine manufacturer, wastewater treatment and discharge in compliance is the focus of our environmental protection efforts. The main pollution indicators for wastewater produced by the Company include pH, chemical oxygen demand (COD), suspended solids, ammonia nitrogen (NH₃-N), total nitrogen, volatile phenols, and total phosphorus.

The Company strictly complies with the provisions of relevant laws, regulations and normative documents, such as Law of the People's Republic of China on Prevention and Control of Pollution from Water Pollution, Discharge Standards for Bioengineering Pharmaceutical Wastewater and Integrated Wastewater Discharge Standard, and has formulated management documents such as Operating Procedures for Wastewater Treatment System, Management Procedures for Water Quality Monitoring in Wastewater Treatment Stations and Operating Procedures for Wastewater Discharge, which provide guidance on the Company's wastewater treatment, monitoring and operation.

The Company has wastewater treatment stations, which are operated in strict accordance with the requirements of relevant environmental protection regulations of the country. Industrial wastewater is discharged into the public sewerage network after treatment at the wastewater treatment stations. We have established an online monitoring system to monitor COD, ammonia nitrogen, pH, total phosphorus and other pollution indicators in wastewater on a daily basis, and commissioned a third party to conduct regular sampling and testing of wastewater to ensure compliance with wastewater discharge standards. In 2022, a 600-ton treatment capacity upgrade project of the Company's wastewater station in Guangming base passed completion and acceptance of environmental protection. In 2022, BioMinhai completed the environmental protection upgrade of ammonium sulfate wastewater transformation, PH adjustment transformation of wastewater station, Parshall flume transformation and other projects to further ensure compliance with wastewater discharge standards. During the reporting period, the Company did not have any incidents of excessive or illegal discharge of wastewater.

Air Emission Management

The main pollutants in the air emission produced by the Company are volatile organic compounds. We strictly abide by the provisions of relevant laws, regulations and normative documents such as Law of the People's Republic of China on Prevention and Control of Air Pollution, Discharge Standards for Odorous Pollutants, Discharge Standards for Air Pollutants for the Pharmaceutical Industry, and Emission Control Standard for Industrial Enterprises Volatile Organic Compounds, and have formulated the Environmental Protection Management Regulations to clarify the management requirements for air emission.

All our air emission vents are designed and installed in accordance with national standards; production waste gas and odorous air from animal rooms are treated by high-efficiency filters and activated carbon adsorption before discharge; fumes from canteens are treated by fume purifiers before discharge. Meanwhile, we have commissioned a third party to conduct regular air emission testing to ensure that the emission concentrations of pollutants in waste gas comply with national standards. During the reporting period, the Company did not have any incidents of excessive or illegal emission of waste gas.

Waste Management

The waste produced by the Company includes general waste and hazardous waste. We strictly abide by the Law of the People's Republic of China on the Prevention and Control of Environmental Pollution by Solid Waste, Management Measures for Hazardous Waste Transfer and other relevant laws and regulations. We manage and store hazardous waste such as medical waste, waste organic solvents, waste alcohol, waste hazardous chemicals, and waste reagents in accordance with the regulations, and hand them over to qualified organizations for disposal through the Company's EHS department. For domestic waste, general industrial solid waste and other non-hazardous waste, we comply with the Measures of Shenzhen Municipality on the Classification and Reduction of Domestic Garbage and the Beijing Municipal Regulations on Management of Domestic Waste and other relevant regulations, and hand over such waste to the sanitation department for disposal. During the reporting period, the Company did not commit violations of laws and regulations related to waste disposal.

Use of Water Resources

The Company consumes water from the municipal water supply, which is not a major resource in production, leading to a low risk of water shortage. We have developed a water conservation management system and have taken active action to drive the achievement of related targets. By improving the utilization of circulating and recycling water from boiler steam condensate process and cooling tower, the Company achieved water conservation effectively.

Caring for Employees and Helping Them Develop

The Company always adheres to the core values of "dedication to people's health", has developed a series of human resource management systems such as employee employment, training, promotion, welfare, rights and interests protection, and is committed to creating a safe, warm and harmonious office environment, building harmonious and stable labor relations, effectively safeguarding the legitimate rights and interests of employees, and realizing the common growth of employees and the enterprise.

Our Talent Philosophy

- Talent is the core force of company development and the cornerstone for sustainable development. We believe that we should let capable staff take up important positions, mediocre employees be laid off and those with average ability engage in general work.
- The employees with good moral character, healthy body and mind, excellent performance and innovative spirit are the most valuable assets of the Company.



Protecting Employee Rights and Interests

Protection of Employees' Basic Interests

The Company adheres to the principle of equal employment and provides equal opportunities for employees. By strictly complying with the requirements of the Labor Law of the People's Republic of China, the Labor Contract Law of the People's Republic of China and other laws and regulations, the Company has established a labor and employment system to ensure that employees are treated equally without discrimination based on their age, gender, race, place of origin, religious beliefs and other factors, and that child labor or forced labor is strictly prohibited. Meanwhile, the Company has formulated the Labor Contract Management Measures, Compensation and Welfare Management Rules, Attendance and Leave Management Measures, Performance Management Rules, Work-related Injury Management Rules, and other regulations to protect the legitimate rights and benefits of employees.

Overview of BioKangtai's employee recruitment and basic rights policies

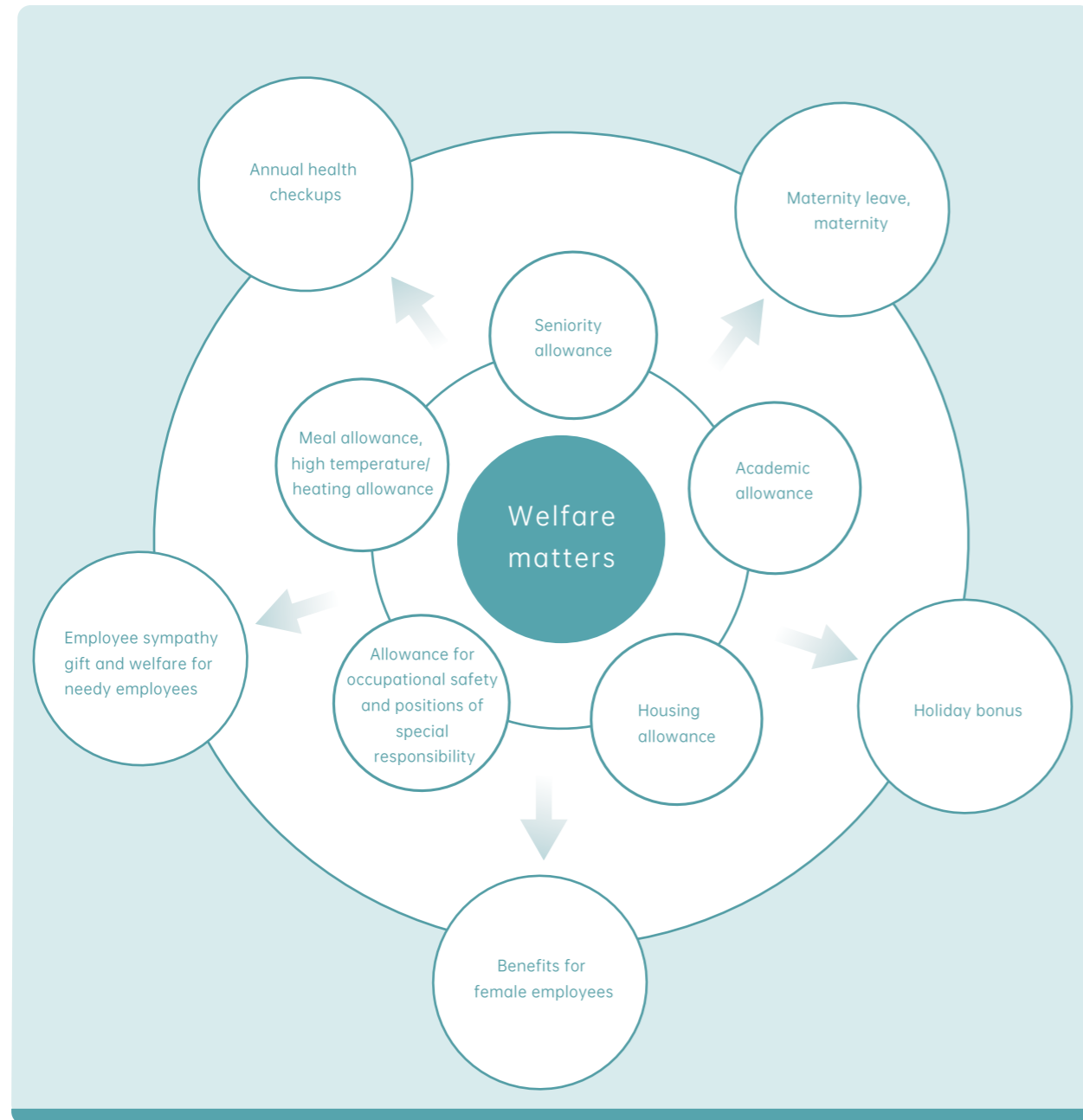
<p>Recruitment Management</p>	<p>Recruitment: We insist on fair employment and prohibit the employment of child labor or forced labor. Dismissal: We terminate labor contracts of different types in accordance with our Labor Contract Management Measures to protect the legitimate rights and interests of employees.</p>
<p>Compensation Management</p>	<p>Compensation: We provide competitive compensation and benefits based on the principle of equity. Our compensation system is based on the value of positions, and we reward employees fairly according to their performance, taking into account the continuous and indirect contributions of each position. We adhere to the performance-oriented principle and encourage value creation. Commercial insurance: We provide supplementary medical insurance services for employees, and our retired employees and interns are covered by accident insurance policies.</p>
<p>Working Hours and Leave</p>	<p>Overtime: Overtime pay is paid according to the Labor Law of People's Republic of China. Leave: Legal holidays and paid leave such as wedding leave, maternity leave, sick leave, and paternity leave are implemented according to national laws and regulations; employees are entitled to annual leave as stipulated by the Company.</p>
<p>Treatment of Work-related Injuries</p>	<p>Employees are entitled to leave for work-related injuries. The Company has formulated the Management Measures for Work-Related Injuries in accordance with the Regulations on Work-Related Injury Insurance of Guangdong, which stipulates details of work-related injury identification, declaration, and treatment, as well as matters such as labor relations and dispute handling.</p>



Employee Welfare System

The Company has established a perfect welfare management system and providing diversified benefits for different kinds of employees. We have formulated Welfare Measures for Workers and Implementation Measures for Special Funds for Trade Union Employees to ensure the transparency and effective implementation of our welfare policies.

Employee welfare



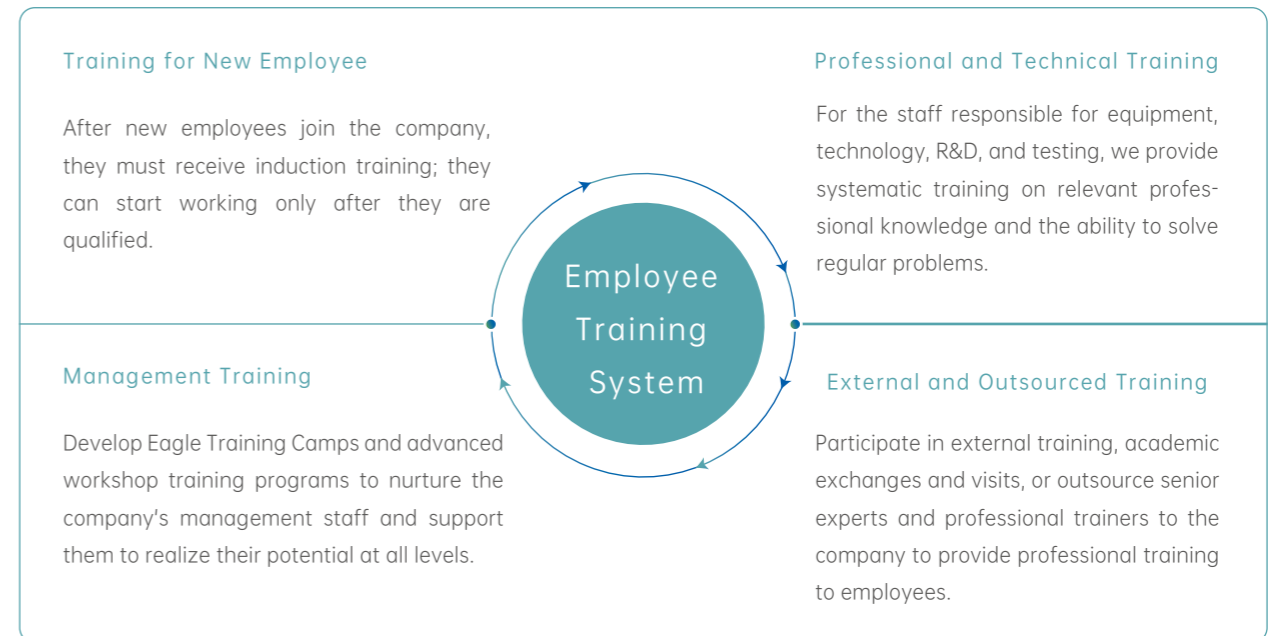
Employee Communication Mechanism

The Company attaches importance to the communication among employees, cares about the physical and mental health of employees and advocates a work-life balance lifestyle. Employees can feedback problems or give suggestions to the department head or other responsible persons through face to face or communication; as a platform for communication with employees, the Company's labor union takes the initiative to listen to employees' voices and respond to their demands. Meanwhile, the Company carries out various activities as humanistic care to create conditions for employees to maintain a work-life balance and a friendly and energetic working atmosphere, enhancing the sense of belonging and cohesion of employees in the Company.

Caring for Employee's Growth

Employee Development and Training

In order to continuously improve the know-how knowledge, professional level and comprehensive quality of employees and cultivate an excellent staff team, the Company has formulated the Training and Development System and established a sound staff training system. Through post knowledge and skills training, corporate culture training and core staff career improvement training, the comprehensive quality and professional ability of employees are continuously improved, and employees' recognition of corporate culture is strengthened, so as to realize the common growth and mutual achievement of employees and the Company.



● School-enterprise collaboration

The Company attaches great importance to school-enterprise collaboration, and sets up management training classes, professional training classes, vaccine featured classes, etc. through collaboration with well-known universities, to provide educational opportunities for outstanding management and technical talents and encourage employees to improve themselves. We fully support front-line employees to acquire academic certificates and professional and technical qualifications by taking examinations and further education, so as to connect employee learning and talent development closely to enable them grow.

To improve the professional and management abilities of employees in a targeted manner, in 2022, we sent 13 Key employees to pursue part-time master's degrees in colleges and universities, such as programs in MBA and Biochemistry and Molecular Biology Technology at Jinan University, which provide opportunities for further education for staff with bachelor's degree. The Company provides programs for different staffing levels via an online learning platform to empower management and promotion personnel at all levels. The Company jointly plans and organizes check and training planning projects with external consulting agencies, and carries out more than 30 mentoring training and discussion activities to provide solutions for training and cultivation of key talents. At the same time, some key technicians were invited by relevant colleges and universities to teach students majoring in biotechnology and participate in the cultivation of future talents in the industry.

● Grant multiple awards

In order to improve employees' enthusiasm, promote and set up exemplary models, the Company annually awards and honors individuals and teams who have made outstanding contributions to its business development, efficiency improvement and compliance operation efficiency, to encourage employees to keep forging ahead.



Performance and Promotion

In order to stimulate the work enthusiasm of employees and meet its strategic development needs for talent security and employees' own career development needs, the Company has formulated the Promotion Management Rules, Performance Management Measures, Monthly Employee Bonus Plan and Annual Performance Evaluation & Merit Pay System to standardize the career development of employees and ensure the rationality, objectivity and justice of employee promotion.

In terms of standardizing promotion management, the Company has gradually established a sound promotion system and career development channel for employees, carried out promotion evaluation in the form of professional knowledge written test, 360-degree talent evaluation, promotion defense and continued to carry out professional technical review and management personnel evaluation system, so that the multi-channel development mode is further closely related to employee development. Competition for the job, trial, evaluation and recruitment is operated at levels; leveraging established BioKangtai 678 leadership model, clear standards are put forward for different managements. According to business and personnel characteristics of each technical department, promotion standard is established at technical sequence. At the same time, we will constantly standardize the promotion process, and carry out tracking and support for promotion.

In terms of performance management, we can provide basis for human resource decisions such as salary adjustment or grading, job change, talent cultivation and employee motivation through scientific and reasonable evaluation of employees' performance; the Company regularly conducts performance evaluations for middle and senior staff as well as junior staff, where the performance evaluation for junior staff is carried out monthly with a performance-based bonus system. In addition, the Company has set up awards and rewards system to recognize advanced employees and motivate all employees to strive for excellence.



Safeguarding Employees

Biosafety Management

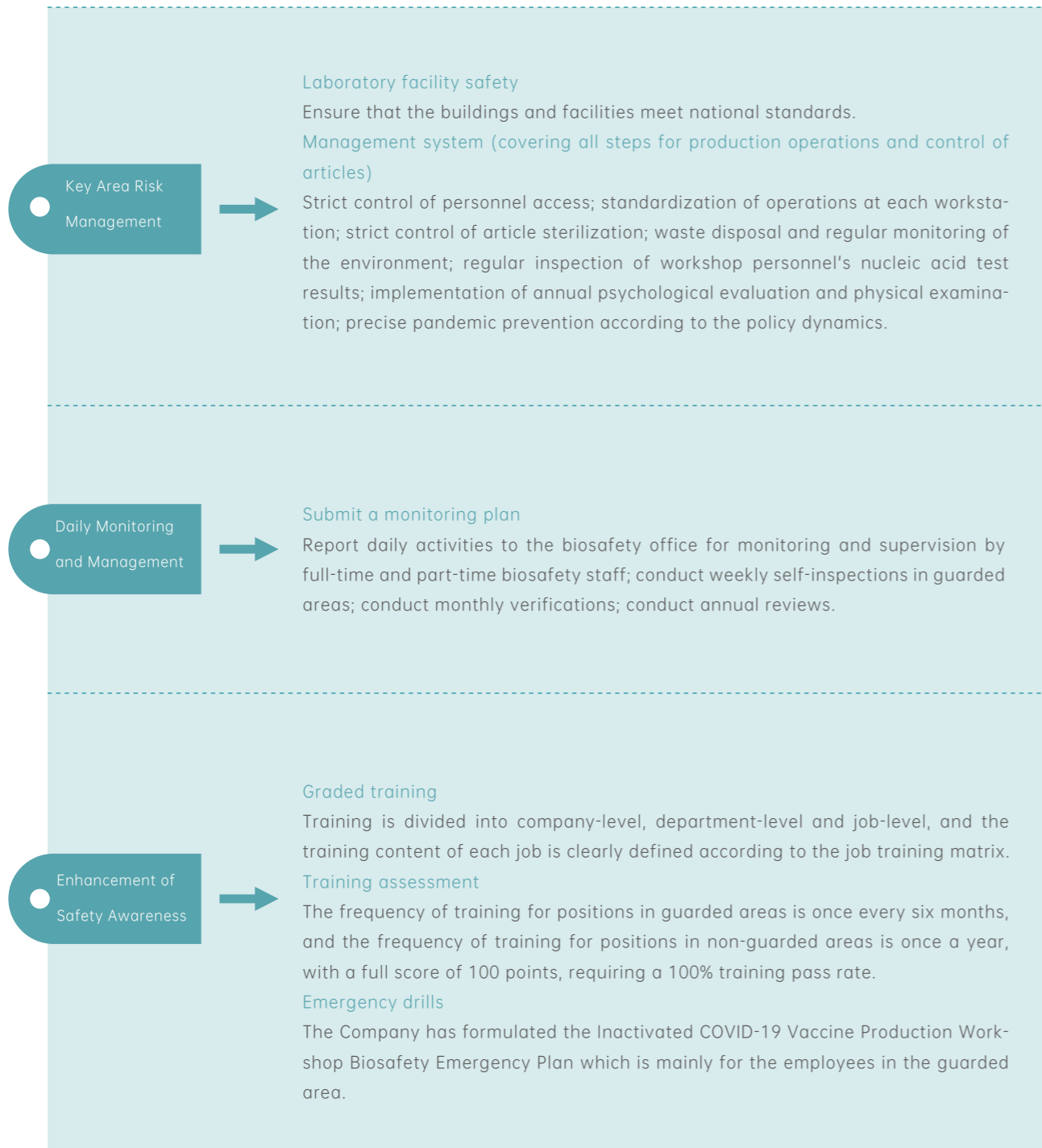
As a vaccine manufacturer, ensuring biosafety during research and development and production is particularly important. The Company strictly complies with the laws and regulations such as the Biosafety Law of the People's Republic of China, and has established a sound biosafety management system covering all procedures of vaccine production in accordance with the General Requirements for Biosafety in Vaccine Production Workshops based on systematic and comprehensive identification and in-depth analysis of biosafety risks. In 2021, the Company established a biosafety management system applicable to workshops with high biosafety risks, and in 2022, the Company's biosafety management system covered the BSL-2 laboratory. The normal operation of biosafety management system effectively prevents biosafety risks in vaccine production. Meanwhile, the Company has improved emergency plans, conducted emergency drills, created a strong culture of biosafety, and enhanced employees' awareness of biosafety risk to ensure the achievement of biosafety targets for vaccine production and fully guarantee the supply of vaccines.

The Company has established two production workshops at its Xili base for the production of inactivated SARS-CoV-2 vaccines. As the first production workshops with high biosafety risk in South China, the two production workshops passed the joint biosafety inspection organized by the National Health Commission in 2021. At the Guangming base, the Company has expanded and reconstructed the existing BSL-2 laboratories for better facilitating the R&D and experimental activities for vaccine production.



	Inactivated SARS-CoV-2 Vaccine Production Workshops	BSL-2 Laboratories
 Security Level	<p>The production workshops are constructed and managed in accordance with the General Requirements for Biosafety in Vaccine Production Workshops, conforming with BSL-3 requirements.</p>	<p>The laboratories meet the requirements for BSL-2 laboratories. According to the latest policy suggestions and requirements of the government, three laboratories will be consolidated and filed as the QC laboratory in the Quality Inspection Research and Development Building for unified management.</p>
 System Construction	<p>Based on the biosafety risk assessment, the Company has established systematic documents on biosafety management in accordance with 210 inspection items in the General Requirements for Biosafety in Vaccine Production Workshops, which cover the whole production process in workshops with high biosafety risk and provide comprehensive control over the personnel, facilities and processes involved. The system documents include biosafety risk report, emergency plan, management manual, secondary procedure documents, tertiary operation procedures and quaternary record forms. Considering the operation practice of high-risk workshops, the management system optimization is continuously promoted, so that workshop biosafety management system is becoming more developed.</p>	<p>Based on the requirements of Laboratory Biosafety Manual (GB19489), the biosafety system documents for BSL-2 laboratories have been prepared, including biosafety risk report, emergency plan, management manual, secondary procedure documents and a safety manual for personnel on site, to ensure the covering of all factors about biosafety management of the laboratory.</p>
 Audit and Inspection	<p>In 2022, the two production workshops received 11 biosafety inspections organized by government departments, all of which were passed. The Company also performs key biosafety inspections. 1 management review, 1 internal Audits, 2 annual biosafety inspection and 33 daily inspections were completed in 2022.</p>	<p>In 2022, the BSL-2 laboratories received and passed 2 biosafety inspection organized by government departments, and revised and improved laboratory's biosafety system documents based on the opinions and suggestions from the inspection team experts.</p> <p>In terms of internal audit, 1 annual biosafety inspection organized by the Biosafety Office was completed.</p>

● Biosafety management system



● Biosafety Training

In 2022, the Company conducted biosafety training on multiple topics, focusing on the learning of biosafety-related laws and regulations and the wearing of personal protective equipment to continuously improve the safety awareness and performance of employees.



The Company actively participates in and organizes various biosafety forums in respect of the latest trends in the industry, shares the management experience on high-biosafety risk workshop to makes progress together, broaden the vision and keep improving with good social benefits.

In addition, in 2022, the Company conducted 13 biosafety emergency drills with simulated scenarios including infectious material spill, broken isolator gloves, experimentalists' hands stabbed by sharp objects, anti-terrorism drills, information security, fire extinguishing and escape. All employees in the guarded area participated in the drills.

Production Safety and Management

Adhering to the policy of "safety first, prevention first and comprehensive treatment", the Company attaches great importance to employees' occupational health and safety production, and strictly abides by relevant laws and regulations such as the Law of the People's Republic of China on Safety Production, the Law of the People's Republic of China on Fire Fighting, the Law of the People's Republic of China on Safety of Special Equipment, and the Regulations on Safety Management of Dangerous Chemicals. The Company has established a series of production safety rules and regulations, fully implemented an accountability system, and also increased the investment in production safety, materials, technology and personnel to ensure safety and actively improve production conditions.

We ensure safe production by improving safety production standards, creating a culture of safe production, developing an accident emergency response system, strictly controlling hazardous chemicals, and strengthening management of firefighting and other special equipment. The Company has had no production safety accidents of average or above in the past three years. In 2022, BioMinhai was honored as the winner of Ankang Cup in Daxing District, Beijing.

● BioKangtai's safety philosophy

I'm responsible for the safety of myself, others, and the Company; all those responsible for safety problems must be held accountable.

Safety management in production

Standardized Safety Production

- Develop Safety Risk Assessment and Management Rules and Hidden Danger Identification and Management Rules;
- Identify and evaluate all kinds of workplace hazards by carrying out safety inspections.

Safety Production Culture Construction

- All new employees must attend the three-level safety education and training and pass the examination before starting work;
- Conduct regular production safety training to enhance employees' awareness of safe operation and emergency response;
- Actively carry out online and offline safety knowledge competition, fire skills competition, EHS improvement activities and other safety cultural activities.

Accident Response

- The Company has formulated the Production Safety Accident Emergency Response and Rescue Plan, including comprehensive plan, special plan and on-site plan).

Key elements in production safety management

Hazardous Chemicals Management

- The Company has formulated the Dangerous Chemicals Management Procedures, Regulations on the Management of Dangerous and Highly Toxic Chemicals, Regulations on the Management of Explosive and Hazardous Chemicals and other regulations to control the purchasing, transportation, storage, use and disposal of dangerous chemicals;
- In 2022, the Company carried out special activities to improve the standardization of dangerous chemicals, continuously improving the storage and use safety of dangerous chemicals, and improving the operation safety and emergency disposal ability of employees through adding storage facilities, increasing monitoring and early warning equipment, improving emergency disposal capacity and strengthening hidden danger detection.

Fire Management

- The Company formulated the Fire Safety Management Regulations, Regulations on the Management of Fire Fighting Equipment and Facilities, Special Emergency Plan for Fire Accidents and other regulations, and regularly conducts inspections, maintenance and testing of firefighting systems;
- In 2022, the Company conducted 27 fire emergency drills among nearly 2,000 employees, the main items of which included fire escape drills and use of fire extinguishing equipment and fire hydrants.

Special Equipment Fire Management

- The Company has formulated the Special Equipment Safety Manual and Elevator Safety Manual, requiring the registration of newly installed special equipment and regular supervision and inspection of existing special equipment and safety accessories.

Occupational Health and Safety Management

The Company attaches importance to the occupational health of employees and strictly abides by the Law of the People's Republic of China on the Prevention and Treatment of Occupational Diseases, the Regulations on the Management of Occupational Health in the Workplace and other laws and standards, and has formulated the Occupational Health Management Regulations and the Labor Protection Equipment Management Regulations, to prevent, control and eliminate occupational hazards and protect the employees.

The occupational disease hazards involved in the Company's production include high temperature, noise, ultraviolet radiation, sodium hydroxide, formaldehyde, phenol, and nitrogen dioxide. We protect our employees' occupational health through compliance with occupational health procedures, good occupational health supervision and protection, enhancement of on-site occupational health management, and regular occupational health-related training. As of the end of the reporting period, the Company had no accidents related to occupational disease hazards.



Occupational health management

Occupational Health Regulations

- Revise the Occupational Health Management System, and prepare the occupational health operating procedures for key posts;
- Strictly abide by the "Three Simultaneities" procedures: occupational disease prevention facilities are designed, constructed and put into production and use with the main project simultaneously;
- Develop the emergency rescue plan against occupational disease hazards and conduct emergency drill for occupational hazards.

Occupational Health Supervision

- Complete occupational health files and workers' health monitoring files;
- Organize regular physical examinations for employees and equip them with protective equipment against occupational diseases;
- Carry out the PPE Standardized Equipment Improvement Activities to comprehensively investigate occupational hazard factors of operation and assess occupational hazard risks, and formulate PPE Scope of Application and Replacement Requirements according to the Personal Protective Equipment Specification (GB 39800-2020) in 2022, make the revision and implementation of labor protective equipment standards and matrix.

On-site Management of Occupational Health

- Set up safety marks or warning marks in conspicuous places where operational risks arise or exist, workplaces where occupational disease hazards occur, jobs, equipment, materials (products) packaging and storage places;
- Supervise the wearing of protective equipment in workplace and proper use of occupational hazard protection facilities;
- Regular maintenance and checks on occupational hazard protection facilities.

Occupational Health Education and Training

- Provide regular occupational health training for employees before and during their employment;
- Carry out the training and assessment mode, and employees who have passed the assessment may be engaged in the corresponding operations.

Detection and Reporting of Occupational Hazards

- Engage qualified organizations to carry out workplace occupational hazards inspection with all inspection results meeting standards;
- Implement the reporting of occupational hazards, and obtain the Receipt of Occupational Hazards Reporting.

The Company cares about the mental health of employees and provides them with regular mental health lectures, team building and exchange activities, etc. In 2022, the Company invited experts from Shenzhen Health Commission to give special lecture on health, with 263 employees attending the lecture.



Giving Back to the Society and Staying True to the Original Mission

With the aim of "produce the best vaccines for mankind", the Company is dedicated to R&D and manufacture of high-quality vaccines, and committed to human immunization health. While promoting the steady development of its main business, the Company actively participates in social welfare activities to create shared values for the industry and society. In 2022, the Company invested a total of 14.65 million yuan in social welfare, and was honored with "Top Ten Caring Enterprises" of the 19th Shenzhen Care Action.



Improving Products Accessibility

Active efforts for R&D and industrialization of products

Vaccination is the most economical and effective measure for us to control and prevent infectious diseases. With the aim of "providing best vaccines for mankind", the Company actively promotes the R&D and industrialization of products in the prevention of hepatitis B, pneumonia, tDAP, novel coronavirus infection and other diseases. At present, the Company has 10 listed and approved products for emergency use, of which, hepatitis B vaccines has been produced and sold more than 1 billion doses in total, helping more than 400 million people protect themselves from hepatitis B virus. At the same time, the Company expands R&D and innovation on the basis of existing products, and actively layouts the R&D of novel vaccines and multi-conjugate multi-valent vaccines with market demand-oriented to provide more quality vaccine products for the society.

Pricing policy

The Company strictly abides by the requirements of the Vaccine Administration Law of the People's Republic of China and sets reasonable vaccine prices with reference to the production costs and market research results. We are committed to providing the community with safe, effective and high-quality products at affordable prices.

Corporate Level

Based on raw and auxiliary materials, labor, logistics, R&D, medical, overhead, insurance and other related costs, we set reasonable prices after scientific calculations.

Based on the research results of the current market situation (annual batch volume of similar products, end-market batch volume, market strategies, etc.) and the prices of other vaccines in the market, reasonable prices are set based on the principles of increasing market share and brand acceptance, product competitiveness, etc.

Market Level

In terms of domestic vaccine pricing, the procurement prices of vaccines for the National Expanded Program on Immunization (EPI) are determined by the centralized bidding or negotiation organized by the competent health authorities and the Ministry of Finance of the State Council; other EPI vaccines and non-EPI vaccines are procured through provincial public resource trading platforms under the guidance of provincial and municipal governments and autonomous regions directly under the Central Government.

Devotion to Public Welfare

Since 2020, the Company has been devoted to fighting the epidemic and actively engaged in public welfare. It has totally donated more than RMB100 million to society, including poverty-stricken areas, Red Cross societies at all levels and scientific research institutions, making contributions to building public immunity barriers, supporting medical development and helping rural revitalization.

Vaccine and Materials Donations

In 2022, the Company's major vaccine and materials donations are as follows:

Time	Vaccine and Materials Donations
2022	Donated 23-valent Pneumococcal Polysaccharide Vaccine to provinces including Jiangxi, Jilin, Xinjiang, Yunnan, Gansu and Jiangsu, which were used to vaccinate relevant persons and protect the health of more people.
March, 2022	Donated 7,000 sets of protective suits and 7,000 pairs of medical isolation shoe covers to Nanshan District Health Bureau in Shenzhen for front-line pandemic prevention.
June, 2022	Donated 100,000 yuan to Anhui Province Red Cross Foundation for its development in Anhui Province.
July, 2022	Donated 13-valent Pneumococcal Polysaccharide Conjugate Vaccine to Anhui Red Cross Foundation for development of medical and health services in Anhui Province.

Support the Development of Healthcare

While pursuing corporate growth, BioKangtai gives full support to medical research and the cultivation of talents in public health, and works together with foundations, universities and research institutes to create a win-win situation and shared value for the industry and society.

Support Medical Research

In December 2021, we donated 20 million yuan to China Foundation for Hepatitis Prevention and Control (in four years) for related academic activities, hepatitis B research projects, and hepatitis B prevention and control.

Industry-Academia-Research Institute Collaboration

- In July 2021, for deepening the cooperation between industry, academia and research institutes, the Company donated 30 million yuan (over three years) to the Education Development Foundation of Jinan University in Guangdong for the establishment of JNUBioKangtai Biomedical Development Fund to promote the high-quality development of the disciplines of public health and the cultivation of public health talents;
- In September 2021, in order to support the development of education and scientific research of College of Pharmacy in Shenzhen Technology University, the Company donated 1 million yuan (in five years) for the establishment of "BioKangtai" Outstanding Freshman Scholarship.
- In November 2021, the Company donated 500,000 yuan (in five years) to Huizhou University for the establishment of BioKangtai scholarship and fellowship.



Support Rural Revitalization

BioKangtai not only supports the development of medical care by leveraging its own advantages, but also responds to the national call for rural revitalization by supporting poverty alleviation and rural revitalization efforts through charitable donations and other means.

The Company has been supporting the public welfare of Xingan County, Jiangxi Province for a long time and caring about local disadvantaged groups. Since 2018, a total of 15 million yuan has been donated to the Civil Affairs Bureau of the county to help the elderly living in retirement homes (including the disabled), orphans and de facto unsupported children.

In 2022, the Company actively supported the Guangdong Poverty Relief Day activity by making donation to Shenzhen Guangming District Charity Association for key poverty relief projects in Guangdong province; the Company made donations to revitalization project of Bo'e Village in Badu Yao Ethnic Township, Tianlin County, Baise City, Guangxi for supporting the matching assistance of Guangming District in Shenzhen City.

Participate in Voluntary Public Welfare

In 2022, several employees of the Company participated in epidemic prevention volunteer activities by helping community workers for registration, assisting medical workers to carry out nucleic acid testing, and assisting in the prevention and control of COVID-19 epidemic.



Future Outlook

Looking forward to the future, with the aim of "providing better vaccines for mankind" and adhering to the core values of "people-oriented, for people's health", the Company will continuously focus on the field of biopharmaceutical and firmly grasp the development opportunities of the industry to activate its internal development power with scientific research and innovation, and drive new growth with heavyweight products and marketing, so as to steadily promote its business operation; based on a global strategy of "bring in" and "go abroad", the Company will promote its vaccine products to go abroad and to the world, and be committed to becoming a world-class supplier of biological vaccines, making greater contribution to protecting people's life and health.

While promoting the steady development of its own business, the Company will continue to strengthen its social responsibility, adhere to the social welfare activities, and wholeheartedly contribute to the society; leveraging integration the ESG theory with its development strategy and operation, the Company will conscientiously fulfill the main responsibility of ecological and environmental protection, and firmly pursue the green development; the Company will also strengthen communication and exchanges with all stakeholders to enable them to pursue win-win cooperation for creating social value and promoting high-quality sustainable development.



ESG Key Performance

8.1 Economic Performance

Indicators	Unit	2022	2021	2020
Operating revenue	RMB10,000	315,740	365,209	226,118
Total assets	RMB10,000	1,378,635	1,414,898	958,451
Owners' interests	RMB10,000	898,534	916,674	746,344
Total tax	RMB10,000	51,763	90,602	22,441
Total number of shares issued by the Company	Shares	1,120,493,735	687,093,526	684,927,132
Net assets per share	RMB	8.02	13.34	10.90

8.2 Environmental Performance

Indicators	Unit	2022	2021	2020
Energy Use				
Total electricity consumption ²	MWh	74,092	78,114	48,859
Total natural gas consumption	m ³	2,747,788	3,573,871	1,250,828
Total heat consumption	GJ	230,389	181,352	158,416
Diesel consumption	Tons	131	125	93
Gasoline consumption	Tons	40	49	39
LPG consumption	Tons	19	16	14

Indicators	Unit	2022	2021	2020	
GHG Emissions					
Total GHG Emissions	tCO ₂ e	91,015	73,659	50,398	
Total GHG emissions in Scope I ³	tCO ₂ e	6,766	8,326	3,163	
Total GHG emissions in Scope II	tCO ₂ e	84,249	65,333	47,235	
GHG emissions per unit of revenue	tCO ₂ e/RMB10,000	0.29	0.20	0.22	
Water Use					
Total water	m ³	1,000,216	1,024,860	581,494	
By source	Water consumption from public water supply	m ³	908,194	952,447	518,380
	Water from barrels and steam conversions	m ³	122,471	72,413	63,114
Discharge Management					
Total air emissions	m ³	266,618,494	253,578,606	98,882,171	
Total VOCs	Tons	0.1939	0.43	0.22	
Exhaust emissions per unit of revenue	m ³ /RMB10,000	844	694	437	
Total industrial wastewater discharge	m ³	553,540	564,561	393,813	
Ammonia nitrogen discharge	Tons	3.40	2.96	1.45	
COD	Tons	41.85	33.13	29.20	
Total nitrogen	Tons	0.31	0.77	0.13	
Total phosphorus	Tons	0.02	0.07	0.01	
Industrial wastewater discharge per unit of revenue	m ³ /RMB10,000	1.75	1.55	1.74	
Total hazardous waste	Tons	348	246	84	

Indicators	Unit	2022	2021	2020
Hazardous waste generated per unit of revenue	kg/RMB10,000	1.10	0.67	0.37
Total general non-hazardous waste	Tons	204	196	176
general non-hazardous waste generated per unit of revenue	kg/RMB10,000	0.65	0.54	0.78
Use of Resources for Production				
Annual environmental expenditure	RMB10,000	425	1,700	273
Number of environmental awareness training sessions	Times	21	15	16
Number of Incidents punished for environmental law violations	Times	0	0	0

Notes:

[1]. The statistical caliber of environmental performance covers Shenzhen Kangtai Biological Products Co., Ltd. and its wholly-owned subsidiary, which is consistent with the scope of the annual report and consolidated financial statements. The increase of air emissions, hazardous and non-hazardous waste discharge comes from the expansion of the company's production scale. In 2020, the Company's Xili base was officially put into operation, so the environmental performance in 2020 includes the Xili base's data after it was put into operation. The environmental performance data in 2021 and 2022 includes that of the Xili base's for the whole year.

[2]. The Company's total electricity consumption comes from purchased electricity.

[3]. The sources of Scope I GHG emissions include natural gas, gasoline, diesel and LPG. The calculation method of carbon emissions from natural gas, gasoline, diesel and LPG refers to the Guideline for Accounting and Reporting of Greenhouse Gas Emissions from Enterprises: Power Generation Facilities (revised edition of 2022) by Ministry of Ecology and Environment of the People's Republic of China).

[4] The sources of Scope II GHG emissions include purchased electricity and heat. The calculation method of carbon emissions from electricity and heat refers to the Guideline for Accounting and Reporting of Greenhouse Gas Emissions from Enterprises Power Generation Facilities (revised version of 2022) by the Ministry of Ecology and Environment of the People's Republic of China and the Guideline for Accounting and Reporting of Greenhouse Gas Emissions from Enterprises in Other Industries (for Trial Implementation) by the National Development and Reform Commission of the People's Republic of China. In particular, the carbon emissions of purchased electricity are calculated based on the grid emission factor, which is obtained from the Ministry of Ecology and Environment and is taken as 0.6101 kg CO₂ e/kWh in 2020 and 0.5810 kg CO₂ e/kWh in 2022.

8.3 Social Performance

Liabilities to employees

Indicators		Unit	2022	2021	2020
Total number of employees		People	2,018	2,445	2,043
By gender	Male	People	1,230	1,505	1,251
	Female	People	788	940	792
By employment type	Full-time contract workers	People	1,994	2,413	2,015
	Full-time dispatched workers	People	0	0	0
	Part-time	People	23	31	28
	Other types	People	1	1	0
By age group ²	> 50 years old	People	64	66	54
	30 to 50 years old	People	1,154	1,288	1,195
	< 30 years old	People	800	1,091	794
By region ³	Mainland employees	People	2,018	2,445	2,043
	Employees from Hong Kong, Macao, Taiwan and overseas	People	0	0	0
By rank ⁴	Junior employees	People	1,903	2,332	1,939
	Middle managers	People	94	97	86
	Senior managers	People	21	16	18
By education ⁵	Employees with Doctoral Degree	People	15	17	14
	Employees with Master's Degree	People	194	210	181
	Employees with Bachelor's Degree	People	1,036	1,200	885
	Employees with Junior College Degree and below	People	773	1,018	963

Indicators		Unit	2022	2021	2020
Employment and Employee Rights					
Labor contract signing rate		%	100	100	100
Social insurance coverage rate		%	100	100	100
Coverage rate of employee medical checkups		%	100	100	100
Number of employees covered by collective bargaining agreements (end of period)		People	1,323	1,491	1,438
Occupational Health and Safety					
Number of employees in positions at risk of occupational diseases		People	166	168	127
Number of employees with occupational disease		People	0	0	0
Number of employees who died due to work-related injuries		People	0	0	0
Number of workdays lost due to work-related injuries		Days	131	365	90

Notes:

[1]. The statistical caliber of employees covers Shenzhen Kangtai Biological Products Co., Ltd. and its wholly-owned subsidiary, which is consistent with the scope of annual report and consolidated financial statements.

[2]. The number of employees by age group only includes contracted workers.

[3]. The number of employees by region only includes contracted workers.

[4]. The number of employees by rank only includes contracted workers.

[5]. The number of employees by education only includes contracted workers.

Product liability

Indicators	Unit	2022	2021	2020
Complaint handling rate ¹	%	100	100	100
Percentage of sold products that had to be taken back due to safety and health issues	%	0	0	0
Number of incidents involving violations of laws and regulations on products and services	Pcs	0	0	0
R&D Investment	RMB10,000	99,356	73,847	27,340
Ratio of R&D investment to operating revenue	%	31.47	20.22	12.09
Number of R&D personnel	Person	465	460	425
Percentage of R&D personnel	%	23.04	18.81	20.80
Number of trademarks approved	Pcs	6	3	1
Number of trademark applications	Pcs	8	6	0
Number of patents granted in the reporting period	Pcs	21	8	6
Number of patent applications in the reporting period	Pcs	9	10	16

Note:

[1]. The complaint handling rate in this report is calculated according to this formula: complaint handling rate = number of complaints handled/total number of complaints received × 100%.

Anti-corruption

Indicators	Unit	2022	2021	2020
Number of patent applications in the reporting period	Pcs	1	1	1
Number of employees participating in anti-corruption related training	Person	695	947	597
Total hours of anti-corruption training received by employees	Hours	1	1	1

Community investment

Indicators	Unit	2022	2021	2020
Amount of community investment	RMB10,000	1,464.64	1,891.30	930.87
Of which: Investment in education	RMB10,000	31.80	1,011.80	1.80
Investment in the medical and health care	RMB10,000	579.47	648.38	585.35
Amount of charitable donations	RMB10,000	853.37	231.12	343.72

Among them

8.4 Compliance Operations

During the reporting period, the Company did not violate any laws and regulations related to product quality, customer service, intellectual property protection, environmental protection and employment. The main domains and laws and, regulations that the Company is involved in are listed in the table below.

Domains	Laws and Regulations	Compliance or Non-compliance
Product Quality	Drug Administration Law of the People's Republic of China, Vaccine Administration Law of the People's Republic of China, Measures for the Administration of Drug Registration, Good Manufacture Practice of Medical Products, Guidelines for Good Clinical Practices, Measures for the Supervision and Administration of Drug Production, etc.	Compliance
Product Research and Development	Drug Administration Law of the People's Republic of China, Vaccine Administration Law of the People's Republic of China, Measures for the Administration of Drug Registration, Good Manufacture Practice of Medical Products, Guidelines for Good Clinical Practices, Measures for the Supervision and Administration of Drug Production, etc.	Compliance
Intellectual Property Protection	Patent Law of the People's Republic of China, Copyright Law of the People's Republic of China, Trademark Law of the People's Republic of China, Regulations on the Protection of Intellectual Property Rights in Shenzhen Special Economic Zone, etc.	Compliance
Customer Service	Law of the People's Republic of China on Consumer Rights and Interests, etc.	Compliance
Information security	Law of the People's Republic of China on the Protection of Personal Information	Compliance
Environmental Protection	Law of the People's Republic of China on Environmental Protection, Law of the People's Republic of China on Prevention and Control of Air Pollution, Law of the People's Republic of China on Prevention and Control of Environmental Pollution by Solid Waste, Law of the People's Republic of China on Prevention and Control of Pollution from Wastewater, Law of the People's Republic of China on Promotion of Cleaner Production, Law of the People's Republic of China on Energy Conservation, Guangdong Environmental Protection Regulations, etc.	Compliance
Employment and Labor	Labor Law of the People's Republic of China, Labor Contract Law of the People's Republic of China, Social Insurance Law of the People's Republic of China, Law of the People's Republic of China on Mediation and Arbitration of Labor Disputes, Law of the People's Republic of China on Trade Unions, Law of the People's Republic of China on the Protection of Women's Rights and Interests, etc.	Compliance
Biosafety	Biosafety Law of the People's Republic of China, etc.	Compliance
Occupational Health and Safety	Law of the People's Republic of China on Prevention and Control of Occupational Diseases, etc.	Compliance
Business Ethics	Criminal Law of the People's Republic of China, Law of the People's Republic of China Against Unfair Competition, Interim Provisions on the Prohibition of Commercial Bribery, China Internal Auditing Standards, Basic Standards for Enterprise Internal Control, Anti-Money Laundering Law of the People's Republic of China, etc.	Compliance

ESG Reporting Guide Index

Guide Index of Guidelines on Self-regulation of Listed Companies on Shenzhen Stock Exchange No. 2: Standardized Operation of Listed Company on the ChiNext Market.

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9.8: (7)	Supply chain and environmental safety	3.2 Strict control of quality and safety
9.8: (8)	Other environmental protection responsibilities	4.2 Tackling climate change
9.9: (1)	Environmental protection policy, targets and effectiveness	4.1 Improving Environmental Management System
9.9: (2)	Total annual resource consumption	8.2 ESG Key Performance – Environmental Performance
9.9: (3)	Environmental investment and environmental technology developmen	4.2 Tackling climate change
9.9: (4)	Pollutant discharge management	4.3 Reducing the Environmental Impact of Operations
9.9: (5)	Construction and operation of environmental protection facilities	4.3 Reducing the Environmental Impact of Operations
9.9: (6)	Waste treatment and disposal, comprehensive utilization of recycled waste	4.3 Reducing the Environmental Impact of Operations

Clause and Disclosures		Chapters
9.9: (7)	Voluntary agreements with environmental protection departments	4.1 Improving Environmental Management System
9.9: (8)	Rewarded by environmental protection departments	4.1 Improving Environmental Management System
9.9: (9)	Other voluntary disclosure	8 ESG Key Performance
9.10 Environmental Protection Policy Implementation		4.1 Improving Environmental Management System 4.2 Tackling Climate Change 4.3 Reducing the Environmental Impact of Operations
9.11 Environmental Information Disclosure		8.2 ESG Key Performance – Environmental Performance
9.12: (1)	Product safety laws, regulations and industry standards	3.2 Strict control of quality and safety
9.12: (2)	Production environment and process	5.3 Safeguarding Employees
9.12: (3)	Product quality and safety assurance mechanism and emergency response plan	3.2 Strict control of quality and safety
9.12: (4)	Other quality and safety responsibilities	3.2 Strict control of quality and safety 5.3 Safeguarding Employees 8.3 ESG Key Performance – Social Performance
9.13: (1)	Staff management system and violation handling measures	5.1 Protecting Employee Rights and Interests
9.13: (2)	Prevention of occupational hazards and ancillary safety measures	5.3 Safeguarding Employees
9.13: (3)	Employee training	5.2 Caring for Employee's Growth
9.13: (4)	Other responsibilities for employee rights protection	5.1 Protecting Employee Rights and Interests
9.14: Ethics of Science		3.1 Continuous R&D and Innovation
9.15 Supervision and Monitoring		2.3 Compliance Operations 3.2 Strict control of quality and safety 4.2 Tackling climate change 5.3 Safeguarding Employees