

# 2024

## Environmental, Social and Governance (ESG) Report



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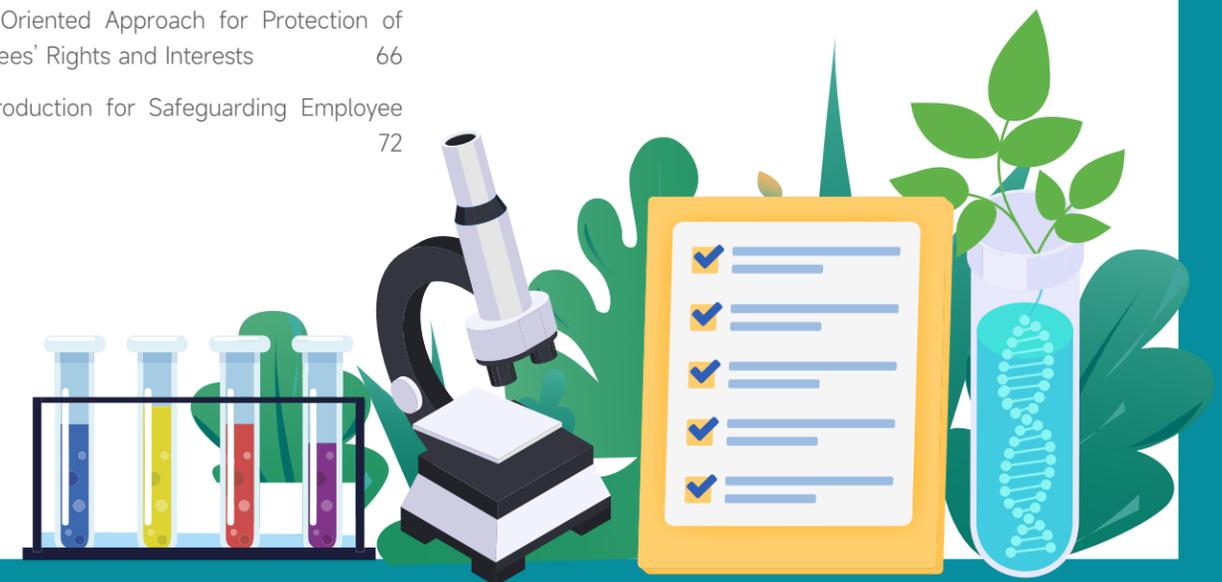
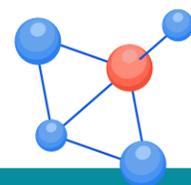
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# About This Report

This report is the Environmental, Social and Governance (ESG) Report (hereinafter referred to as the “ESG Report”) issued by Shenzhen Kangtai Biological Products Co., Ltd. Adhering to the principles of objectivity, standardization, transparency, and comprehensiveness, this report provides a detailed disclosure of the Company’s practices and performance in the areas of environmental protection, social responsibility, and corporate governance during the year 2024.

## Reporting Scope

This report takes “BioKangtai” as the main reporting entity and includes its subsidiaries. Unless otherwise specified, the scope of this report is consistent with that of the Company’s annual report.

## Reporting Period

This report covers the period from January 1, 2024, to December 31, 2024 (hereinafter referred to as the “reporting period”). In order to enhance the comparability and completeness of the report, some of the contents may appropriately trace back to previous years or have forward-looking descriptions.

## Impact Duration

In this report, the definitions of short-term, medium-term, and long-term impact durations are as follows: short-term refers to within 1 year, medium-term refers to 1–5 years, and long-term refers to more than 5 years.

## Preparation Basis

- ◆ Shenzhen Stock Exchange *Self-Regulatory Guidelines No. 17 for Companies Listed on Shenzhen Stock Exchange - Sustainability Report (For Trial Implementation)*
- ◆ Shenzhen Stock Exchange *Self-Regulatory Guidance No. 3 for Companies Listed on the ChiNext Market of Shenzhen Stock Exchange—Preparation of Sustainability Report*
- ◆ *Sustainability Reporting Standards of the Global Reporting Initiative (GRI Standards)*
- ◆ Chinese Academy of Social Sciences (CASS) *China Corporate Sustainable Development Report Guide (CASS-CSR 6.0)*
- ◆ Task Force on Climate-related Financial Disclosures (TCFD) Recommendations
- ◆ Sustainable Development Goals (SDGs) of the United Nations
- ◆ Sustainability Accounting Standards Board (SASB) Standards

## Data Explanation

All information and data referenced in this report are sourced exclusively from official documents, statistical reports and financial statements of BioKangtai, as well as information related to sustainable development practices gathered, consolidated and audited across various functional departments and business units within the Company.

This report doesn’t contain any false records, misleading statements, or material omissions. Unless otherwise specified, all amounts in this report are expressed in RMB.

## Definition

| Term                    | Interpretation                                 |
|-------------------------|--|
| The Company, BioKangtai | Shenzhen Kangtai Biological Products Co., Ltd. |
| BioMinhai               | Beijing Minhai Biotechnology Co., Ltd.         |

## Access to this Report

This report is available for review and download on the official websites of the Company ([www.biokangtai.com](http://www.biokangtai.com)) and the Shenzhen Stock Exchange website (<http://www.szse.cn>). This report is published in Chinese and English, with the English version derived from the Chinese version. For any discrepancy between the two versions, the Chinese version shall prevail.

# About BioKangtai

## Company Overview

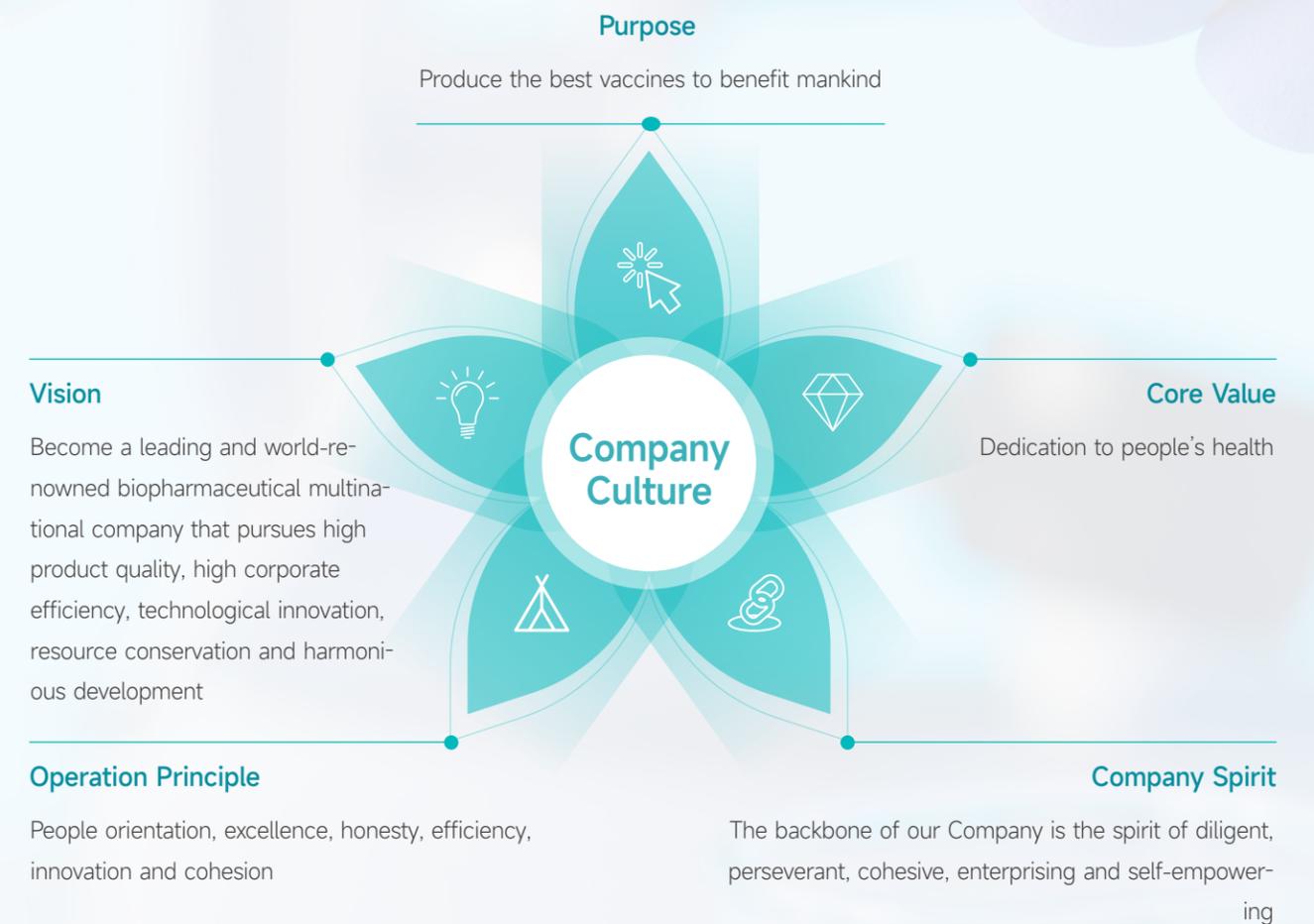
Headquartered in Shenzhen, Shenzhen Kangtai Biological Products Co., Ltd. has been specialized in R&D, production and sales of vaccines for human use since its establishment in 1992. The Company was listed on the ChiNext market of the Shenzhen Stock Exchange in February 2017 (stock code: 300601). Since its inception, the Company has placed a strong emphasis on innovative R&D, and has grown into an innovative biopharmaceutical enterprise with robust R&D capabilities, a wide product portfolio, leading industry scale, and significant international progress. The Company has the capability to research and produce viral vaccines, bacterial vaccines, genetically engineered protein vaccines, conjugate vaccines, and combination vaccines, among others. It also possesses product development capabilities in platform technologies such as viral vectors, novel adjuvants, and nucleic acid vaccines (mRNA). BioKangtai is one of the companies with the most comprehensive vaccine R&D platforms in China. Meanwhile, 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 effectively applied the technology platforms through multi-product development, so as to continuously enhance the Company's innovative R&D strength.

The Company has been engaged in the vaccine industry for over 30 years. Its 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. At present, the Company has 11 listed and approved products for emergency use, with nearly 30 products under research, covering key global vaccine varieties. Among these, "60µg Recombinant Hepatitis B Vaccine (*Saccharomyces cerevisiae*)" and "Dual-Carrier 13-Valent Pneumococcal Polysaccharide Conjugate Vaccine" independently researched and developed by itself are the world's first of their kind and used for the special group of people who do not have any response to Hepatitis B Vaccine; the self-developed Diphtheria, Tetanus, Acellular Pertussis and Haemophilus Influenzae Type b Combined Vaccine (DTaP-Hib Combined Vaccine) (quadruple vaccine) is the domestic vaccine with the largest number of combined vaccines; and the Rabies vaccine (human diploid cell) for human use, Freeze-dried is the first "Four doses" of rabies vaccine (human diploid cell) approved in China. The Company has formed a diversified and innovative product pipeline layout with industry competitiveness. With the upcoming release of the products under development, the Company's sustainable development will be greatly guaranteed and its competitiveness will be further enhanced.

While enhancing the cultivation of domestic market and continuously optimizing the sales network layout, the Company has adhered to the "Bring In" and "Go Global" strategies to promote its products to the international market. Since its establishment, the Company has undertaken the technology transfer from international vaccine giants such as Merck(USA), Sanofi(France), Intravacc(Netherlands), AstraZeneca (UK), etc. At the same time, the Company utilizes the advantages of its own rich product reserves to continue to increase the expansion of overseas markets. Since 2022, the Company has signed cooperation agreements with partners from over ten countries, including Indonesia, Pakistan, Bangladesh, Nicaragua, Colombia, Egypt, Nigeria, Sri Lanka, and India. These agreements cover the registration, promotion, commercialization, and technology transfer of products such as the 13-Valent Pneumococcal Polysaccharide Conjugate Vaccine, 23-Valent Pneumococcal Polysaccharide Vaccine, Inactivated Poliomyelitis Vaccine, and DTaP-Hib Combined Vaccine (quadruple vaccine), etc. in overseas markets. In March 2025, the Company, the Beijing Economic-Technological Development Area Administrative Committee, and AstraZeneca signed the *Economic Development Cooperation Agreement and Term Sheet*, with the intention of establishing a deep strategic partnership focused on vaccine investment. The parties plan to set up a joint venture in the Beijing Economic-Technological Development Area, which will serve as a platform for developing innovative vaccines in China and supplying vaccines to both the Chinese market and emerging markets. In the future, the Company will continue to increase its efforts in international market expansion, actively explore international market cooperation, strengthen the overseas registration of its products, and develop diversified sales channels for its products, striving to become a leading and world-renowned biopharmaceutical multinational company.

## Corporate Culture

The Company has always adhered to the corporate purpose of "produce the best vaccines to benefit 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 biopharmaceutical multinational company to contribute to the development of public health sciences.



## Performance in 2024

### Economic Performance



Operating Income  
**2,651.72** million yuan

Net Profit  
**201.55** million yuan

Total Assets at Year-End  
**14,563.71** million yuan

Various Taxes and Fees  
**122.50** million yuan

Shareholders' Equity  
**9,661.03** million yuan

Basic Earnings per Share  
RMB **0.18**

### Environmental Performance



Environmental Investment  
**3.8388** million yuan

Direct Greenhouse Gas Emissions  
**19,829.65** tCO<sub>2e</sub>

Number of Penalties for Violations of Environmental Laws and Regulations  
**0**

Indirect Greenhouse Gas Emissions  
**86,228.19** tCO<sub>2e</sub>

Environmental Training  
**22** times

GHG Emission Intensity  
**0.40** tCO<sub>2e</sub>/10,000 yuan of revenue

### Industry Value Performance



Investment in R&D  
**569.22** million yuan

Ratio of R&D Investment to Operating Revenue  
**21.47** %

Number of R&D Personnel  
**362** persons

Percentage of R&D Personnel  
**18.92** %

Number of Authorized Invention Patents  
**66**

Number of Authorized Utility Model Patents  
**22**

Product Recalls  
**0** case

Quality Training  
**7,936** times

Total hours of Quality Training  
**11,536** hours

### Social Performance



Total Number of Employees  
**1,913** persons

Female Employees  
**721** persons

Percentage of Female Employees  
**37.69** %

Percentage of women in management  
**29.41** %

Employee Turnover Rate  
**7.52** %

Labor Contract Signing Rate  
**100** %

Social Insurance Coverage Rate  
**100** %

Investment in Employee Training  
**1.0709** million yuan

Investment in Social Welfare  
**8.4973** million yuan

## Company Milestones

▶ **1992**  
Company founded

▶ **1994**  
The Company completed pilot production of 5 µg Hepatitis B Vaccine, which was later approved by the Ministry of Health.

▶ **1995**  
The Company's 5 µg Hepatitis B Vaccine (0.5 mL per dose) met the quality standards of Merck & Co., INC, and the vaccine acquired approval number for pilot production from the Ministry of Health.

▶ **2000**  
The Company acquired the first GMP certificate for its Hepatitis B Vaccine.

▶ **2002**  
The Company introduced its 10 µg Hepatitis B Vaccine (1.0 mL per dose) for adults.

▶ **2004**  
The Company introduced Hepatitis B Vaccine with a shelf life of three years, which is the first of its kind in China.

▶ **2005**

- The Company replaced its 10 µg Hepatitis B Vaccine (1.0 mL per dose) with 10 µg Hepatitis B Vaccine (0.5 mL per dose) for adults.
- The Company acquired its second GMP certificate for Hepatitis B vaccine.

▶ **2008**  
After a strategic reorganization, BioKangtai acquired BioMinhai as its wholly-owned subsidiary.

▶ **2010**

- The Company successfully developed the first 60 µg Hepatitis B Vaccine (1.0 mL per dose) for adults hepatitis B vaccine non-responders in China;
- The Company acquired the third GMP certificate for its Hepatitis B Vaccine.

▶ **2011**

- The Company introduced its 20 µg Hepatitis B Vaccine (1.0 mL per dose) for adults.
- The Company introduced its 10 µg Hepatitis B Vaccine (0.5 mL per dose) for children.

▶ **2012**

- The Company acquired a GMP certificate for its Hib Conjugate Vaccine;
- The Company acquired a GMP certificate for its DTaP-Hib Combined Vaccine.

▶ **2013**

- The Company acquired GMP certificate for its Measles and Rubella Combined Vaccine, Live;
- BioMinhai established a postdoctoral R&D center in Beijing.

## 2014

- The Company acquired a GMP certificate (2010 version) for its Hepatitis B Vaccine;
- The Company acquired a GMP certificate for its Hib Conjugate Vaccine (prefilled);
- The Company collaborated with INTRAVACC (Netherlands) and WHO to import Inactivated Poliomyelitis Vaccine;
- BioMinhai established the Beijing Novel Combination Vaccine R&D Center, the Beijing Academician Workstation, and the Beijing International Sci-Tech Cooperation Base for Novel Vaccines.

## 2015

BioMinhai established the National-Local Joint Engineering Laboratory for Novel Vaccine Technologies.

## 2017

The Company was listed on the ChiNext Market of Shenzhen Stock Exchange.

## 2018

BioKangtai's Guangming Base in Shenzhen was officially put into use.

## 2019

The Company's 23-Valent Pneumococcal Polysaccharide Vaccine received a GMP certificate and was launched.

## 2021

- The Company's SARS-CoV-2 Vaccine, Inactivated was approved for emergency use in China;
- The Company's 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;
- The Company's 13-Valent Pneumococcal Polysaccharide Conjugate Vaccine received drug registration certificate.

## 2022

- The Company's production site for Recombinant COVID-19 Vaccine (Y25 Adenovirus Vector) received a Declaration of Conformity issued by the EU's qualified person;
- The Company's vaccine production site in Guangming District, Shenzhen, received a GMP Declaration of Conformity issued by the Food and Drug Administration, Philippines.

## 2023

The Rabies Vaccine (human diploid cell) for Human Use, Freeze-dried received drug registration certificate.

## 2024

- Inactivated Poliomyelitis Vaccine received drug registration certificate;
- Minhai International Industrial Base for Novel Vaccines was officially put into operation
- Group Headquarters Building—Kangtai Innovation Square inaugurated, positioning it as an important biopharmaceutical R&D and headquarters hub in Shenzhen.

# Honors

| Honors  | Awarded by   |
|---|--|
| First Prize of Shenzhen Science and Technology Awards   | Shenzhen Municipal People's Government Science and Technology Awards Committee   |
| Leading Enterprise of Guangdong Pilot 100 Program   | Guangdong Provincial Economic and Information Commission<br>Guangdong Provincial Science and Technology Department, etc.                     |
| High-Tech Enterprise Certificate  | Science, Technology and Innovation Commission of Shenzhen Municipality<br>Shenzhen Municipal Finance Committee<br>Shenzhen Tax Service, etc. |
| 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   |
| 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 Pharmaceutical and Medical Industry in the Greater Bay Area | Shenxin Communication Think Tank of ShenZhen Press Group<br>Qingbo Intelligent Technology Co., Ltd.  |
| "Top Ten Caring Enterprises" of the 19th Shenzhen 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<br>China Enterprise Reform and Development Society   |
| China's Top 500 New Economy Enterprises   | China Enterprise Evaluation Association  |
| National Enterprise Technology Center   | National Development and Reform Commission   |
| 2023 Guangdong Top 500 Enterprises  | Guangdong Provincial Association of Entrepreneurs  |
| 2024 Typical Board of Directors Practice Case of Listed Companies   | China Association for Public Companies   |
| 2024 Listed Company ESG Value Delivery Award  | Shenzhen Value Online Co., Ltd.  |
| Top 300 Most Popular Listed Companies   | Tonghuashun  |
| 2024 Best Practice in Digital Transformation of Listed Companies  | China Association for Public Companies   |



BioKangtai

| Honors  | Awarded by  |
|---|---|
| High-Tech Enterprise Certificate  | Beijing Municipal Science and Technology Commission<br>Beijing Municipal Finance Bureau<br>Beijing Tax Service  |
| Beijing Science and Technology  | 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<br>China Postdoctoral Management Committee  |
| 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  | Beijing Association for Science and Technology  |
| Worker Pioneer  | All-China Federation of Trade Unions  |
| Beijing Intellectual Property Demonstration Organization  | Beijing Municipal Intellectual Property Office  |
| 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   | Ministry of Human Resources and Social Security of the People's Republic of China<br>All-China Federation of Trade Unions, etc.   |
| 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  |
| National Demonstration Enterprise in Intellectual Property Right Protection   | State Intellectual Property Office  |
| Beijing Advanced Enterprises in Building Harmonious Labor Relations   | Beijing Municipal Human Resources and Social Security Bureau<br>Beijing Municipal Federation of Trade Unions, etc.  |
| Research and Development of New Vaccine - Liu Jiankai Innovation Studio   | Beijing Municipal Federation of Trade Unions, Beijing Municipal Commission of Science and Technology  |
| Manufacturing Enterprises   | Beijing Enterprise Confederation  |
| Leader of Beijing Association for Science and Technology Next Generation Vaccine Development Enterprise Innovation Consortium                               | Beijing Association for Science and Technology  |
| 2024 Beijing Top 100 Manufacturing Enterprises  | Beijing Enterprise Directors Association  |
| Grand Prize of Science and Technology Award of Guangdong Preventive Medical Association - Guangdong Major Diseases Vaccine Innovation and Industrialization | Guangdong Preventive Medicine Association   |
| Beijing "Two Industries Integration" Pilot Enterprise   | Beijing Municipal Development and Reform Commission   |
| 2024 Excellent EHS Management Case for Pharmaceutical Enterprises   | China Pharmaceutical Enterprises Association  |
| Beijing Health Enterprise   | Beijing Municipal Health Commission<br>Beijing Municipal Federation of Trade Unions   |
| National Green Factory  | Ministry of Industry and Information Technology of the People's Republic of China   |
| Beijing Green Factory   | Beijing Municipal Bureau of Economy and Information Technology  |



BioMinhai

## Participation in Key Industry Associations

| Association   | Designation         |
|---|---------------------|
| China Association for Vaccines  | Vice President Unit |
| Guangdong Society of Biomedical Engineering Arrhythmia Branch                 | Unit Member         |
| China Association for Public Companies  | Member Unit         |
| Shenzhen Public Companies Association Bio-pharmaceutical and Health Committee | Vice Chairman       |
| Shenzhen Life Sciences and Biotechnology Association                          | Vice President Unit |
| Shenzhen Biological Medicine Promotion Association                            | Governing Unit      |
| Guangdong Preventive Medicine Association                                     | Vice President Unit |
| Guangdong Bio-Pharmaceutical Innovation Association                           | Governing Unit      |
| Shenzhen Bio-pharmaceutical Industry Alliance                                 | Governing Unit      |
| Guangdong Food & Drug Technology Association for Evaluation & Certification   | Member              |
| Guangdong Bio-Pharmaceutical Innovation Technology Association                | Governing Unit      |
| Jiangxi Preventive Medicine Association                                       | Member              |
| Guangdong Preventive Medicine Association                                     | Member              |
| Hunan Preventive Medicine Association   | Vice President      |
| Nanchang Preventive Medicine Association                                      | President           |



## Communications with Stakeholders

BioKangtai has established diverse communication channels both online and offline, actively engaging with stakeholders including shareholders and investors, customers, employees, suppliers and partners, government and regulatory bodies, industry associations, communities, and the public. The Company responds to the demands and expectations of each stakeholder group, promoting mutually beneficial outcomes between the Company's development and its stakeholders.

| Stakeholders  | Communication Channels  | Expectations and Requirements  |
|---|---|--|
| <br>Shareholders and Investors           | <ul style="list-style-type: none"> <li>General Meeting of Shareholders</li> <li>irm.cninfo.com.cn</li> <li>Investor Communication, Roadshows, Conference</li> <li>Investor Hotline/Email</li> </ul> | <ul style="list-style-type: none"> <li>Corporate Governance</li> <li>Compliance and Risk Management</li> <li>Economic Performance</li> <li>Innovation-driven</li> <li>Supply Chain Security</li> </ul>   |
| <br>Customers                            | <ul style="list-style-type: none"> <li>Customer Visits</li> <li>Industry Exchanges</li> <li>Customer Services and Customer Complaints</li> </ul>  | <ul style="list-style-type: none"> <li>Data Security and Customer Privacy Protection</li> <li>Product Quality and Safety</li> <li>Protection of Customers' Rights and Interests</li> <li>Innovation-driven</li> </ul>  |
| <br>Employees                           | <ul style="list-style-type: none"> <li>Regular Meetings</li> <li>Employee Activities</li> <li>Labor Union</li> <li>Employees' Congress</li> <li>Complaints and Feedback</li> </ul>                  | <ul style="list-style-type: none"> <li>Labor Rights</li> <li>Employee Training &amp; Development</li> <li>Occupational Health and Safety</li> </ul>  |
| <br>Suppliers and Partners             | <ul style="list-style-type: none"> <li>Supplier Evaluation and Auditing</li> <li>Supplier Training</li> <li>Industry Exchanges</li> </ul>   | <ul style="list-style-type: none"> <li>Supply Chain Security</li> <li>Product Quality and Safety</li> <li>Innovation-driven</li> </ul>   |
| <br>Government and Regulatory Agencies | <ul style="list-style-type: none"> <li>Regular Work Summary and Official Correspondence</li> <li>Law Enforcement Supervision and Inspection</li> </ul>  | <ul style="list-style-type: none"> <li>Pollutant Emissions</li> <li>Waste Disposal</li> <li>Environmental Compliance Management</li> <li>Anti-commercial Bribery and Anti-corruption</li> <li>Anti-unfair Competition</li> <li>Communications with Stakeholders</li> <li>Product Quality and Safety</li> </ul> |
| <br>Industry Associations              | <ul style="list-style-type: none"> <li>Industry Associations and Organizations</li> <li>Industry Exchanges</li> <li>Project Cooperation</li> </ul>  | <ul style="list-style-type: none"> <li>Innovation-driven</li> </ul>  |
| <br>Community and the Public           | <ul style="list-style-type: none"> <li>Community Activities</li> <li>Public Welfare Services</li> <li>Media Communication</li> <li>Popularization of Vaccine Knowledge</li> </ul>                   | <ul style="list-style-type: none"> <li>Pollutant Emissions</li> <li>Waste Disposal</li> <li>Environmental Compliance Management</li> <li>Energy Utilization</li> <li>Water Resource Utilization</li> <li>Contribution to Society</li> <li>Response to Climate Change</li> </ul>                                |

## Sustainable Development Governance

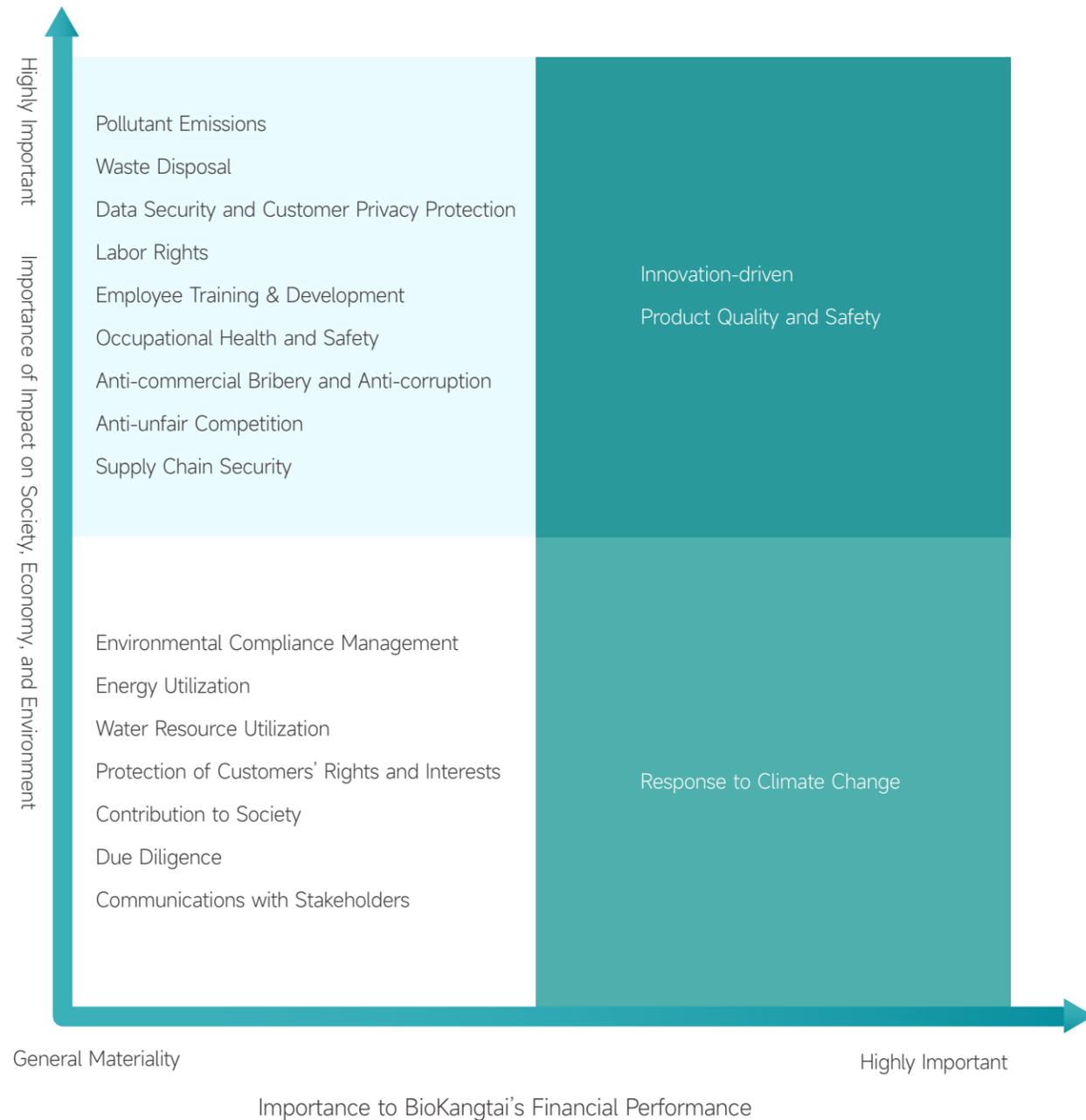
### Sustainable Development Philosophy

BioKangtai is committed to promoting sustainable development, adhering to the corporate purpose of "produce the best vaccines to benefit mankind" and practicing the core value of "dedication to people's health". The Company insists on standardized operations and integrity in its business practices, placing high importance on the protection of stakeholders' rights, including those of shareholders, employees, customers, and suppliers. The Company aims to promote sustainable and coordinated development between itself, society, and the environment, thereby achieving long-term value.

To further strengthen ESG governance, the Company has incorporated ESG responsibilities into the Strategy Committee's functions and revised the *Board of Directors' Strategy Committee Work Rules*. The Strategy Committee is responsible for researching and formulating the ESG strategy, managing key topics, reviewing ESG reports, and monitoring the progress of goal implementation. This ensures that the sustainable development philosophy is deeply embedded in all aspects of the Company's operations.

## Material Issue Identification

Referring to the United Nations Sustainable Development Goals (SDGs), domestic and international ESG reporting standards, and industry-specific concerns, the Company undertook the identification of material issues based on its future development strategy, business model, as well as expert opinions, with full consideration of the demands and expectations of stakeholders. A total of 19 issues were identified, which were then prioritized based on their impact on environmental, social, and economic aspects, as well as their financial significance to the Company.

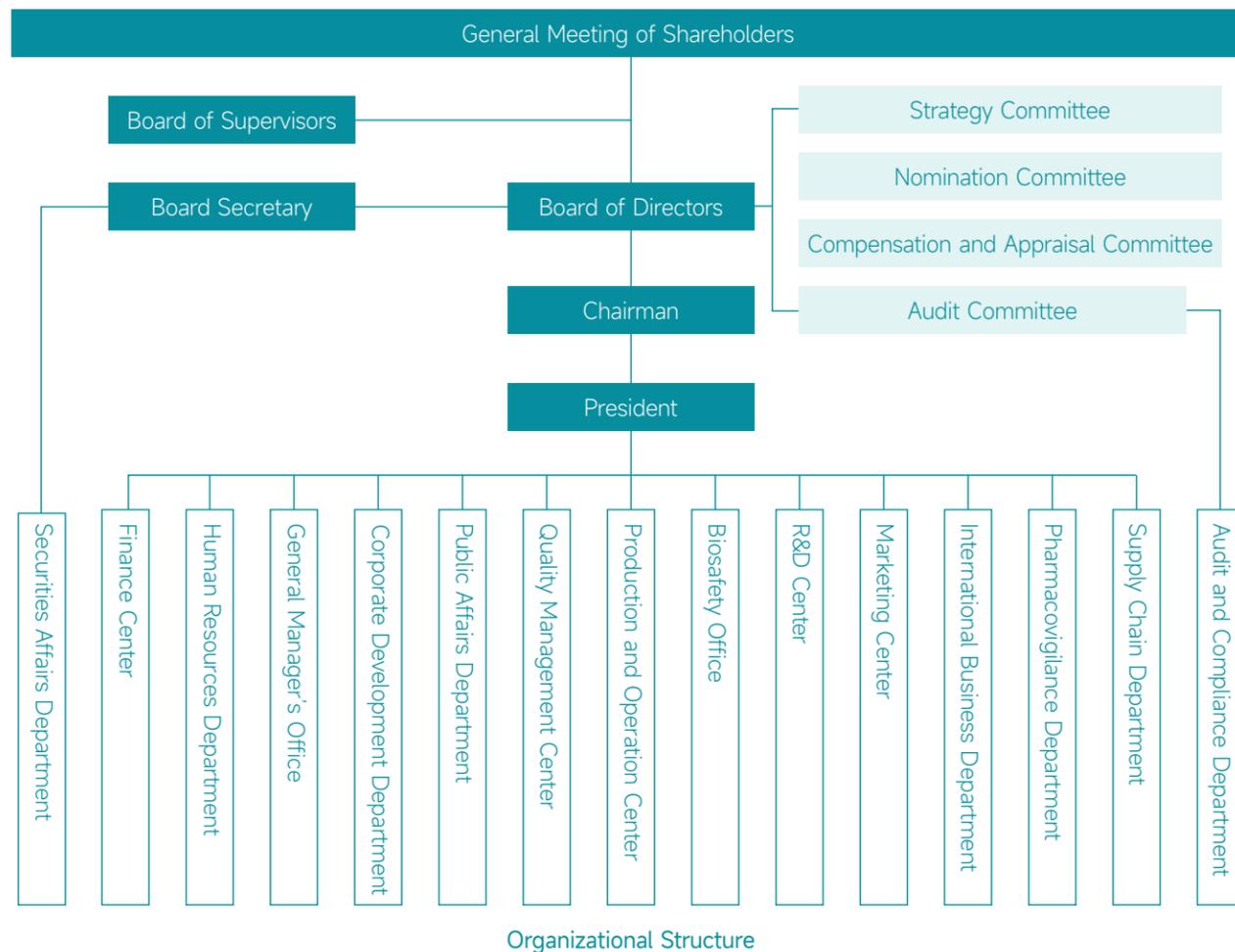


## 01 Compliant Operations for Stable and Long-Term Development

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## Standardized Corporate Governance for Efficient Operations

BioKangtai, in accordance with the Company Law of the People’s Republic of China (hereinafter referred to as the “Company Law”), Securities Law of the People’s Republic of China (hereinafter referred to as the “Securities Law”), *Guidelines for the Articles of Association of Listed Companies, Rules Governing the Listing of Shares on the GEM of Shenzhen Stock Exchange, and No. 2 Guidelines of the Shenzhen Stock Exchange for the Self-Regulation of Listed Companies - Standardized Operation of Companies Listed on ChiNext Market*, has formulated the *Articles of Association of Shenzhen Kangtai Biological Products Co., Ltd.* (hereinafter referred to as the “Articles of Association”). The Company has established a governance structure comprising the General Meeting of Shareholders, Board of Directors, Board of Supervisors, Board Committees, and management, forming a system that is legal, compliant, and tailored to the Company’s operational needs. The system clearly defines the roles, responsibilities, and procedural rules for each level of organization, ensuring the separation of decision-making, execution, and supervision, establishing a system of checks and balances to safeguard the Company’s compliance and healthy development.



## General Meeting of Shareholders

The Company strictly follows the requirements of the *Company Law, Rules for the General Meeting of Shareholders of Listed Companies*, and the *Articles of Association* to establish the *Rules of Procedure for General Meetings of Shareholders*. These rules standardize the procedures for convening, conducting, and voting at the shareholders’ meeting, ensuring that the rights and obligations of shareholders are fully protected. The Company holds General Meeting of Shareholders through a combination of on-site and online voting, ensuring that shareholders can fully exercise their rights. A lawyer is invited to attend and provide legal opinions. When deliberating on major issues that may affect the interests of minority investors, the votes of minority investors are counted separately, effectively safeguarding the legal rights of shareholders, especially small and medium shareholders.

### Key Performance Indicators

During the reporting period, the Company convened a total of **2** General Meetings of Shareholders, during which **14** proposals were deliberated and adopted.

## Board of Directors

The Company strictly adheres to the *Governance Code for Listed Companies, Articles of Association*, and other regulatory documents to establish the *Rules of Procedure for the Board of Directors*. These rules clearly define the procedures for convening, holding, and voting at meetings of Board of Directors, ensuring the Board of Directors’ operations are standardized and efficient, and enhancing its core decision-making role in the Company’s strategic planning and major decisions. The meetings of Board of Directors are convened and chaired by the Chairman, and all procedures related to the convening, holding, and voting of meetings comply with the relevant provisions of laws, regulations, *Articles of Association*, and the *Rules of Procedure for the Board of Directors*. The Board of Directors consists of 7 directors, including 3 independent directors. In 2024, the Company was awarded the 2024 Best Practice Case for Board of Directors of Listed Companies by the China Association for Public Companies.



Best Practice for Board of Directors of Listed Companies

### Key Performance Indicators

During the reporting period, the Company convened a total of **9** meetings of the Board of Directors, during which **47** proposals were deliberated and adopted.

## Independence

Independent directors owe a duty of loyalty and diligence to the Company and all shareholders. In accordance with the Independent Director System and the Independent Director Special Meeting Working System, they leverage their professional expertise to make independent, objective, and fair judgments on important matters. They provide professional opinions, oversee the Company’s compliance, safeguard the overall interests of the Company, and protect the legitimate rights of shareholders, especially minority shareholders.

## Board of Directors Composition and Diversity

| Position  |   |           |                                 |
|-----------|---|-----------|---------------------------------|
|           | Non-Independent Directors                   | 4 persons | <div style="width: 40%;"></div> |
|           | Independent Directors                       | 3 persons | <div style="width: 30%;"></div> |
| Age       |   |           |                                 |
|           | 50 to 55 years old (excluding 55 years old) | 1 person  | <div style="width: 10%;"></div> |
|           | 55 to 60 years old (excluding 60 years old) | 1 person  | <div style="width: 10%;"></div> |
|           | 60 to 65 years old (excluding 65 years old) | 2 persons | <div style="width: 20%;"></div> |
|           | 65 to 70 years old (excluding 70 years old) | 3 persons | <div style="width: 30%;"></div> |
| Education |   |           |                                 |
|           | Bachelor's Degree                           | 1 person  | <div style="width: 10%;"></div> |
|           | Master's Degree                             | 3 persons | <div style="width: 30%;"></div> |
|           | Doctoral Degree                             | 3 persons | <div style="width: 30%;"></div> |

### Diversity

When selecting members for the Board of Directors, the Company takes into account a range of factors, including age, cultural and educational background, professional experience, and skills, ensuring the scientific and efficient decision-making of the Board of Directors.

### Board Committees

The Board of Directors has established four special committees: the Strategy Committee, Audit Committee, Nomination Committee, and Compensation and Appraisal Committee. These committees provide strong support for decision-making by offering diverse professional perspectives and scientific analysis, ensuring that decisions are both scientific and rational.

**Key Performance Indicators**

During the reporting period, the Company convened **5** meetings of the Audit Committee, during which **22** proposals were deliberated and adopted;

convened **1** meeting of the Strategy Committee, during which **1** proposal was deliberated and adopted;

convened **3** meetings of the Compensation and Appraisal Committee, during which **5** proposals were deliberated and adopted;

convened **1** meeting of the Nomination Committee, during which **2** proposals were deliberated and adopted.

## Board of Supervisors

The Company's supervisors, acting in the best interests of all shareholders, adhere to the relevant provisions of the *Rules of Procedure for the Board of Supervisors* and diligently fulfill their supervisory duties. They oversee significant matters, related-party transactions, financial activities, internal controls, and the legality and compliance of the duties performed by the Board of Directors and senior management. The Board of Supervisors is composed of 3 supervisors: 1 shareholder representative and 2 employee representatives.

**Key Performance Indicators**

During the reporting period, the Company convened a total of **5** meetings of the Board of Supervisors, during which **21** proposals were deliberated and adopted.

## Management of Remuneration for Directors, Supervisors, and other Officers

The Compensation and Appraisal Committee of the Board of Directors is responsible for researching and formulating the Compensation Management System for Directors, Supervisors, and Senior Management, which is reviewed and approved by the Board of Directors and the General Meeting of Shareholders. This system stipulates that the compensation for internal directors, supervisors, and senior management consists of basic salary, performance-based compensation, insurance, and benefits. Compensation is assessed and awarded based on factors such as the Company's overall size, operating income and profitability, regional salary levels, job responsibilities, professional capabilities, and performance evaluations. At the same time, the Company enforces a compensation policy that combines job positions and individual capabilities. It employs various forms such as monthly salary, annual salary, performance bonuses, and annual performance evaluations. This policy aligns the interests of shareholders, the Company, and individuals, thereby improving the cohesion and motivation of senior executives and key team members, which in turn enhances the Company's overall operational efficiency and quality.

## Investor Relations Management for Safeguarding Shareholder Interests

The Company strictly adheres to relevant laws and regulations, including the *Investor Relations Management Guidelines for Listed Companies*, *Measures for the Administration of Information Disclosure by Listed Companies*, *Rules Governing the Listing of Shares on the ChiNext Market of Shenzhen Stock Exchange*, and *No. 2 Guidelines of the Shenzhen Stock Exchange for the Self-Regulation of Listed Companies - Standardized Operation of Companies Listed on ChiNext Market*, as well as the provisions of its own *Articles of Association*. The Company has established a sound investor relations management and information disclosure system, standardized the interaction and information disclosure processes between the Company and investors, strengthened information exchange with investors, and maintained a strong trust relationship between the Company and its investors.

## Information Disclosure

The Company continuously improves its information disclosure process in accordance with the Information Disclosure Affairs Management System, enhancing the quality of information disclosure. The Company discloses its business operations and management status, as well as significant events affecting the Company, in a truthful, accurate, timely, fair, and complete manner. The Company has designated Securities Times, China Securities Journal, Shanghai Securities Journal, Securities Daily, and the CNINFO website as its official channels for information disclosure, ensuring that all investors have fair access to the Company's information. During the reporting period, there were no false statements, misleading representations, material omissions, or other improper disclosures in the Company's information releases.

### Key Performance Indicators

During the reporting period, the Company disclosed **4** regular reports and **140** interim reports.

## Investor Relations Management

The Company adheres to the principles of compliance, equality, proactivity, and integrity. In accordance with the Investor Relations Management System, the Company fully showcases its cultural development and business achievements to investors. Through channels such as the official website, new media platforms, telephone, email, and the irm.cninfo.com.cn, the Company engages in open and transparent communication with investors via methods such as general meeting of shareholders, performance briefings, analyst meetings, roadshows, visitor receptions, and forums. This approach effectively protects the legitimate rights and interests of investors and fosters the establishment of long-term, stable, mutually trustworthy, and win-win cooperative relationships between the Company and its investors.

### Key Performance Indicators

During the reporting period, the Company held **1** performance briefing and interacted with investors **53** times on the irm.cninfo.com.cn.

## Returns to Shareholders

The Company values providing reasonable returns to its shareholders and has implemented the "Dual Improvement of Quality and Return" action plan. It has also developed the *Shareholder Return Plan for the Next Three Years (2024-2026)*, continuously improving a scientific, sustainable, and stable shareholder return mechanism. The Company takes into account various factors, including development strategy, profitability, cash flow, project investment funding requirements, and the external financing environment. Based on a balance between providing reasonable returns to shareholders and supporting the Company's long-term development, the Company has made institutional arrangements for profit distribution, adopting a combination of cash, stock, or both. The Company actively shares its development achievements with shareholders.

### Key Performance Indicators

Since its listing in 2017, the Company has distributed over RMB **1.885** billion in cash dividends (including the amount for share repurchase and cancellation and the proposed dividend amount for 2024), with the total cash dividend amount accounting for **45.06%** of the cumulative net profit attributable to the shareholders of the listed company.

## Risk Prevention and Control for Strengthening the Compliance Foundation

The Company always adheres to compliant operations and has strictly developed the *Internal Control Guidelines* in accordance with relevant laws and regulations. The Company continuously improves and optimizes its internal control system, enhancing its risk management capabilities to safeguard the compliance operating baseline. The Company updates and adjusts the internal control system in a timely manner based on development conditions and changes in the external environment, ensuring the effective operation of the system. This effectively prevents compliance risks and provides solid support for the Company's sustainable and stable development.

## Compliant Operations

The Company upholds the compliance philosophy of "compliance starts from top management, with active compliance from all employees, and compliance creates value". It has established the Compliance Management System to build a compliance management framework, raise compliance awareness among all employees, and establish an effective long-term mechanism to mitigate compliance risks. This ensures that the Company operates in accordance with the law and complies with regulations, promoting sustainable development. Each department within the Company serves as the compliance execution department and assumes primary responsibility for the effectiveness of its own compliance management. Departments are responsible for daily compliance management tasks, improving business management systems and processes in line with compliance requirements, proactively identifying compliance risks and potential issues, issuing compliance alerts, organizing compliance reviews, reporting risks in a timely manner, and appropriately responding to compliance risk events. The Company has set up a compliance management team, responsible for organizing, coordinating, and overseeing compliance management work, as well as providing compliance support to other departments. Additionally, the Company has established a compliance performance evaluation system, incorporating the effectiveness of compliance management into the performance assessments of senior management, department heads, and employees.

Building on the comprehensive promotion of compliance management, the Company focuses on key areas, critical processes, and key personnel to effectively prevent compliance risks. During the reporting period, the Company's Audit and Compliance Department conducted 8 special audits in accordance with the *Internal Audit Assessment Management Rules* and the *Follow-up Audit Tracking Management Rules*. The department tracked the Company's corrective actions for special audits and issued the *2024 Annual Follow-up Audit Report on Special Audit Corrective Actions*.

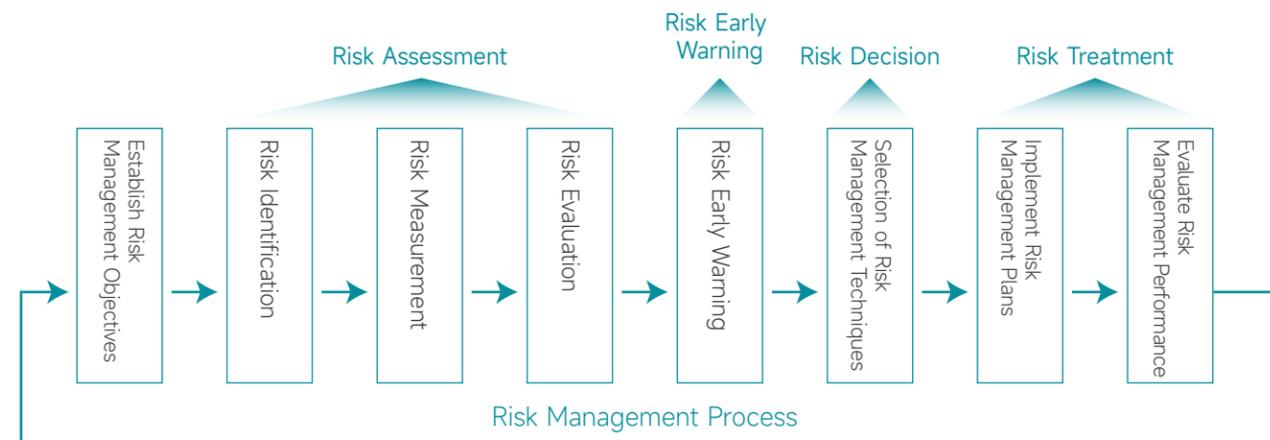
The Company actively cultivates a compliance culture by distributing compliance handbooks, signing compliance commitment letters, and other measures. It strengthens the awareness of integrity and honesty among all employees and fosters a values system based on legal compliance, honesty, and trustworthiness, thereby solidifying the ideological foundation for compliant operations.



## Risk Management

In accordance with the Basic Standard for Enterprise Internal Control and its supporting guidelines, as well as other internal control regulatory requirements, the Company has developed the *Risk Management and Internal Control System Manual*. This manual clarifies the internal control and management processes at each business level, identifies both internal and external risks in business activities, and conducts systematic analysis to create a risk register. The Company periodically updates and optimizes the internal control system and revises and improves the internal control systems in accordance with the latest relevant laws and regulations, adapting to the constantly changing external environment and the evolving requirements of internal control management. The Company's Board of Supervisors, the Audit Committee of the Board of Directors, and the Audit and Compliance Department together form the Company's internal supervision mechanism. They oversee and evaluate the improvement and implementation of the internal control system, as well as the Company's business operations and financial status.

During the reporting period, the units, businesses, and matters included in the evaluation, as well as the high-risk areas, covered the main aspects of the Company's business operations and management, with no significant omissions. Based on the Company's identification of material internal control deficiencies, as of the benchmark date of the internal control evaluation report, the Company did not have any material internal control deficiencies related to financial or non-financial reporting. Through the operation, analysis, and evaluation of the internal control system, the Company effectively prevented risks in business operations and promoted the achievement of internal control objectives.



### Internal Control Management Training

In May 2024, the Company invited ShineWing Certified Public Accountants to conduct a training session for the Company's directors, supervisors, senior executives, and relevant business personnel. The training was delivered through a combination of on-site and online meetings, focusing on the key points and practices of building an internal control system for listed companies. The training covered topics such as the regulatory trends for internal control of listed companies in the new era, strategies and methods for building an internal control system, and common risks and control measures in key business processes. This training helped the Company strengthen internal control awareness, improve the internal control system, enhance business management capabilities, and ensure the Company's continued healthy development.

## Tax Management

The Company strictly adheres to the *Law of the People's Republic of China on the Administration of Tax Collection*, the *Rules for the Implementation of the Law of the People's Republic of China on the Administration of Tax Collection*, and other relevant regulations. It exercises strict control over tax-related matters, standardizes the management of tax affairs, invoice management, tax risk management, and tax documentation management to minimize tax risks. During the reporting period, the Company paid a total of RMB 122.50 million in various taxes and fees.

## Integrity as the Foundation and Adhering to Business Ethics

The Company strictly complies with relevant laws and regulations, including the *Anti-Unfair Competition Law of the People's Republic of China*, the *Anti-Money Laundering Law of the People's Republic of China*, the *Law of the People's Republic of China on the Protection of Consumers' Rights and Interests*, as well as the ISO 37001 Anti-Bribery Management System - Requirements with Guidance for Use. It has established systems such as the *Code of Professional Ethics*, the *Implementation Rules for Clean Office Practices*, and the Whistleblowing Management System. The Company operates its business activities in accordance with high standards of business ethics, opposing all forms of corruption, bribery, and unfair competition. During the reporting period, the Company did not face any significant litigation cases related to corruption, bribery, or unfair competition.

## Anti-Bribery and Anti-Corruption

The Company continues to advance the construction of its compliance and business ethics management system based on the *Anti-Commercial Bribery Compliance Manual*. It establishes regulatory requirements for all employees and partners regarding integrity in business practices and adopts a zero-tolerance policy towards unethical business conduct. During the reporting period, the signing rate of the *Integrity Commitment Letter* among key employees reached 100%.

| Business Ethics Standards and Requirements  |   |
|---|---|
| Target                                      | Requirements  |
| All Employees                               | <ul style="list-style-type: none"> <li>Do not use power to accept bribes;</li> <li>Prohibit the use of improper means to obtain trade secrets;</li> <li>Prohibit false advertising that harms competitors.</li> </ul>   |
| Middle and Senior Management, Key Positions | <ul style="list-style-type: none"> <li>Comply with laws and regulations, maintain integrity in office, and sign the <i>Integrity Commitment Letter</i>; Strictly prohibit the unauthorized dissemination of confidential information.</li> </ul>  |
| Departments                                 | <ul style="list-style-type: none"> <li>Contracts with suppliers/partners must include clauses on signing integrity agreements or related terms, and supervise the implementation of these agreements.</li> </ul>  |
| External Partners and Promoters             | <ul style="list-style-type: none"> <li>Strictly comply with laws and regulations, include compliance clauses in agreements, and conduct market activities in accordance with the law. Prohibit bribery of relevant departments or company employees in any form to gain improper benefits.</li> </ul> |

The Company has established a series of policies, including the *Market Activity Management Policy* and the *Promoter Management Regulations*, to strengthen the management of key aspects in business operations and reinforce the defense against unethical business conduct.

| Commercial Bribery Risk Control Points |  |   |
|--|--|---|
| Control Point                          | System   | Specific Actions  |
| Marketing Personnel Behavior           | <ul style="list-style-type: none"> <li>Marketing Center Personnel Code of Conduct</li> <li>Marketing Center Expense Reimbursement Management Measures</li> </ul> | In the vaccine industry, the Company strictly controls the behavior of marketing personnel by implementing a series of behavioral standards and supervision mechanisms, aiming to prevent improper actions.   |
| Promoter Behavior                      | <ul style="list-style-type: none"> <li>Market Activity Management Policy</li> <li>Promoter Management Regulations</li> </ul>                                     | The Company has established a series of supervisory and management mechanisms, requiring promoters to sign the <i>Promoter Compliance Commitment Letter</i> and <i>Promoter Employee Compliance Commitment Letter</i> . This ensures that promoters comply with regulations during market activities and eliminates improper business dealings. |
| Marketing Expenses                     | <ul style="list-style-type: none"> <li>Marketing Expense Reimbursement Management Measures</li> </ul>  | To ensure compliance, the Company assesses the authenticity and reasonableness of various marketing expenses, including business promotion fees and storage and transportation fees. Clear reimbursement conditions and standards are set for each type of expense to prevent industry violations at the expense expenditure level.             |
| External Promotion Fees                |  | When reviewing external promotion fees, such as business promotion costs, storage and transportation fees, and conference expenses, the Company requires supporting documents like valid invoices, contracts, meeting evidence, and travel reports. This ensures the authenticity and compliance of the expenses.                               |

## Anti-unfair Competition

The Company is committed to maintaining a fair and just market competition environment. It firmly opposes imposing any unreasonable restrictions on partners and ensures that all business activities comply with the requirements for fair competition, promoting the healthy development of the industry's competitive ecosystem.

## Whistleblowing Channels and Protection of Whistleblowers

The Company has established a Whistleblowing Management System, which outlines the reporting organization, scope and channels for reporting, reporting acceptance procedures, and handling measures. The Audit and Compliance Department is responsible for managing and implementing the whistleblowing process. The Company encourages employees and partners to actively report any suspected illegal or unethical behavior, rewarding whistleblowers who provide truthful information. The Company guarantees strict confidentiality of the whistleblower's personal information and report details, and will severely punish any retaliatory actions. If retaliation is verified, the Company will hold individuals accountable according to relevant regulations.

Hotline: 0755-26988630

Email: shenjibu@biokangtai.com

## Innovation-Driven for Supporting Industry Development

### Governance

BioKangtai has established systems such as the *R&D Center Project Management Regulations* to standardize the management of R&D projects and enhance the conversion capability of R&D outcomes. The Company has set up a product development management structure responsible for the demonstration and approval decision-making of research projects. The executive committee is responsible for approving project initiation, project implementation documents, and registration application materials. The advisory committee is tasked with reviewing and evaluating the initiation of R&D projects.

### R&D Team Development

The Company has accumulated a wealth of core technologies required for vaccine R&D and production through the development of various vaccine products. It has built a team with an international perspective, rich experience in vaccine product development management, and practical experience in industrialization.

#### Key Performance Indicators

As of the end of the reporting period, the Company and its subsidiaries had a total of **362** R&D personnel, accounting for **18.92%** of the total workforce.

#### 2024 R&D Team Overview

##### Composition of R&D Personnel by Educational Background



|                         |             |        |
|-------------------------|-------------|--------|
| Below Bachelor's Degree | 53 Persons  | 14.64% |
| Bachelor's Degree       | 199 Persons | 54.97% |
| Master's Degree         | 102 Persons | 28.18% |
| Doctoral Degree         | 8 Persons   | 2.21%  |

##### Composition of R&D Personnel by Gender



|        |             |        |
|--------|-------------|--------|
| Male   | 213 Persons | 58.84% |
| Female | 149 Persons | 41.16% |

# 02

## Innovation Leading and Creating Excellence in Safe Vaccines

|  |    |
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## R&D Platforms and Research Carriers

The Company has been deeply engaged in the human vaccine field for over 30 years and has grown into an innovative biopharmaceutical enterprise with robust R&D capabilities, a wide product portfolio, leading industry scale, and significant international progress. It is one of the companies with the most comprehensive vaccine R&D platforms in China, possessing robust vaccine R&D capabilities. The Company has the capability to research and produce viral vaccines, bacterial vaccines, genetically engineered protein vaccines, conjugate vaccines, and combination vaccines, among others. It also possesses product development capabilities in platform technologies such as viral vectors, novel adjuvants, and nucleic acid vaccines (mRNA). The Company holds over 80 patents, with 11 listed and approved products for emergency use and nearly 30 products under research, covering key global vaccine varieties. Meanwhile, 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 effectively applied the technology platforms through multi-product development, so as to continuously enhance the Company's innovative R&D strength.



### Nine Diversified R&D Platforms

|  |  |  |
|--|--|--|
| Platform for virus attenuated vaccines                   | Platform for inactivated virus vaccines        | Platform for genetically engineered protein vaccines |
| Platform for new adjuvant technology                     | Platform for bacterial polysaccharide vaccines | Platform for mRNA vaccines                           |
| Platform for bacterial polysaccharide conjugate vaccines | Platform for combined vaccines                 | Platform for virus vector vaccines                   |



### 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                              | State-Local Joint Engineering Laboratory for Novel Vaccine Development |
| Beijing Novel Combination Vaccine R&D Center  | Academician (Expert) Workstation                     |  |



## Strategy

| Risk Type                             | Risk Description   | Impact Duration | Value Chain Links of Impact | Financial Impact          | Response Measures  |
|---------------------------------------|--|-----------------|-----------------------------|---------------------------|--|
| Difficulty in New Product Development | Vaccine R&D is characterized by high knowledge intensity, technical complexity, complex processes, long development cycles, large financial investments, and significant uncertainty in the successful industrialization of research outcomes. | Long-term       | Downstream                  | Increased operating costs | Strengthen basic and applied vaccine research, promote vaccine development and innovation, focus on R&D investment and technological innovation. |

| Opportunity Type                                 | Opportunity Description  | Impact Duration | Value Chain Links of Impact | Financial Impact           | Response Measures  |
|--|--|-----------------|-----------------------------|----------------------------|--|
| Technological Breakthrough and Market Leadership | By continuously increasing R&D investment, building a high-quality R&D team, overcoming key core technologies, and mastering intellectual property, the Company can take a leading position in market competition. | Long-term       | Operations, downstream      | Increased operating income | The Company will closely monitor industry development trends and cutting-edge innovative technologies, explore the application of new vaccine technology paths, and establish new technology platforms. The focus will be on improving the R&D innovation system, accelerating new product R&D and industrialization progress, and constructing a diversified and differentiated product matrix to enhance the market competitiveness of the Company's products. |



## Impact, Risk, and Opportunity Management

The Company has established the *R&D Center Project Management Regulations* to standardize R&D project management processes and enhance the commercialization of research outcomes.

### Project Initiation, Review, and Decision-Making

- Aligned with corporate strategy and market demand, potential R&D projects undergo topic selection, feasibility analysis report drafting, and formal project applications. Projects are evaluated through technical, economic, and legal risk assessments, followed by an evaluation report. Upon approval, the project is officially initiated.

### Implementation and Control

- Project leaders oversee progress and quality control, ensuring strict compliance with the latest Chinese Pharmacopoeia standards and policies issued by the National Medical Products Administration (NMPA).
- The Scientific Research Management Department coordinates material reviews with advisory committees and regulatory affairs teams.
- After obtaining clinical trial approval, cross-functional teams assess whether to proceed with trials and conduct subsequent analytical research.

### Acceptance

- At each milestone, project leaders submit stage acceptance applications. The R&D Center Director organizes systematic reviews to validate completion per phase requirements.

## Metrics and Targets

To drive high-quality innovation in R&D, the Company has established clear objectives, defined key performance indicators (KPIs), and implemented a monitoring and evaluation mechanism. During the reporting period, the Company's R&D expenditure reached RMB 569.22 million, accounting for 21.47% of total revenue.

## R&D Results

### Projects Under Research

The Company adheres to the R&D policy of focusing on independent research and development, supplemented by collaborative development, and is committed to enhancing technological innovation and the development of new products. The Company is steadily advancing the R&D progress and industrialization of its ongoing projects. Currently, the Company has nearly 30 ongoing projects, with those entering the registration process described below:

| Project Name  | Registration Stage   | Current Process   |
|---|--|---|
| Inactivated Poliomyelitis Vaccine, Sabin Strains (Vero Cell)  | NDA registration approval  | Application for producing registration accepted; on-site GMP inspection completed |
| Influenza Vaccine (Split Virion), Quadrivalent (3+ Years Age Group)   | NDA registration approval  | Production registration application accepted                                      |
| Adsorbed Tetanus Vaccine  | Clinical research completed  | Phase I/III clinical trial summary report obtained                                |
| Group ACYW135 Meningococcal Polysaccharide Vaccine  | In the summary stage of clinical phase   | Completed the on-site job of Phase III clinical research                          |
| Inactivated Hepatitis A Vaccine   | In the summary stage of clinical phase   | Completed the on-site job of Phase III clinical research                          |
| Diphtheria, Tetanus and Acellular Pertussis Combined Vaccine (Component), Adsorbed  | IND obtained, clinical phase in progress   | Completed Phase I clinical trial, Phase III clinical trial under preparation      |
| Recombinant Hepatitis B Vaccine (Hansenula)   | IND obtained, clinical phase in progress   | Completed Phase I clinical trial  |
| Reassortant Rotavirus Vaccine, Live, Oral, Pentavalent (Vero Cell)  | IND obtained, clinical phase in progress   | In Phase I, Phase II, and Phase III clinical trial stages                         |
| 20-Valent Pneumococcal Polysaccharide Conjugate Vaccine   | IND obtained, clinical phase in progress   | Phase I and II clinical trials in progress  |
| Diphtheria, Tetanus, Pertussis (Acellular, Component), Poliomyelitis (Inactivated) Vaccine and Haemophilus Influenza Type b Conjugate Vaccine, Adsorbed | IND obtained, clinical phase in progress   | Phase I clinical trial in progress  |
| Diphtheria, Tetanus, Acellular Pertussis (Acellular, Component) and Poliomyelitis (Inactivated) Combined Vaccine, Adsorbed                              | IND obtained, clinical phase in progress   | Phase I clinical trial in progress  |
| MMR Combined Attenuated Live Vaccine  | IND obtained, clinical phase in progress   | Phase I clinical trial in progress  |
| Inactivated Tetravalent Enterovirus Vaccine (Vero Cell)   | IND obtained, clinical phase in progress   | Phase I clinical trial in progress  |
| Influenza Vaccine (Split Virion), Quadrivalent (6-35 Months Age Group)  | Obtained notification of clinical trial approval   | Obtained notification of clinical trial approval                                  |
| Influenza Vaccine (Split Virion), Quadrivalent (MDCK Cells) (3+ Years Age Group)  | Obtained notification of clinical trial approval   | Obtained notification of clinical trial approval                                  |
| Inactivated Bivalent Enterovirus Vaccine (Vero Cell)  | Obtained notification of clinical trial approval   | Obtained notification of clinical trial approval                                  |
| 60 µg 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  |

### Industry-university-research Cooperation

The Company emphasizes industry-university-research cooperation, focusing on vaccine innovation, research and development, and industrialization. The Company strengthens its collaboration with universities, attracting top talents and technological resources. This collaboration promotes the joint development of new vaccine technologies, providing solid support for the development and industrialization of new products.

## Protection of Intellectual Property Rights

### Intellectual Property Management

The Company strictly adheres to the laws and regulations such as the *Trademark Law of the People's Republic of China* and the *Patent Law of the People's Republic of China*. It has established systems like the *Intellectual Property Management Measures* and the *Measures for the Management of Patent* to strengthen intellectual property management, clarify related management responsibilities, encourage inventions and innovations, enhance the Company's market competitiveness, and promote sustainable development. During the reporting period, the Company did not encounter any incidents related to the infringement of others' intellectual property rights, nor were there any intellectual property-related lawsuits.



Intellectual Property Full-Process Management Mechanism

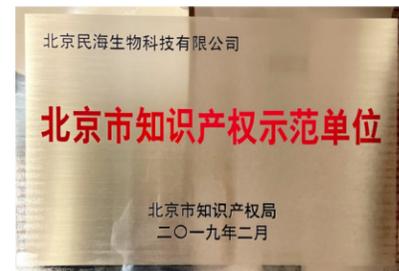
The Company attaches great importance to intellectual property protection and management. BioMinhai has been awarded the titles of "National Demonstration Enterprise in Intellectual Property Right Protection" and "Beijing Intellectual Property Demonstration Organization". BioMinhai's "Dual-Carrier" 13-Valent Pneumococcal Polysaccharide Conjugate Vaccine "Weimin Feibao" has been recognized as a nationally patent-intensive product. This vaccine holds several invention patents and is a research outcome of the National Ministry of Science and Technology's major new drug creation project.



National Demonstration Enterprise in Intellectual Property Right Protection



Practice Site of Examiner Practice (Beijing Zhongguancun) Base of China National Intellectual Property Administration



Beijing Intellectual Property Demonstration Organization

### Intellectual Property Protection Measures

While protecting its own intellectual property, the Company also fully respects the intellectual property rights of others. During the product development process, intellectual property managers are deeply involved in all key stages, including patent technology research, patent infringement analysis, and the development of design schemes to avoid infringement. For different types of products, the Company formulates patent layout plans tailored to specific conditions. Throughout the entire research and development process, the Company closely monitors the output dynamics of innovative results and evaluates their patentability in a timely manner. Based on a precise understanding of the rules of various intellectual property application systems, the Company fully utilizes these rules to achieve the best patent portfolio, thereby enhancing the commercial value of its R&D products.

#### Key Performance Indicators

As of the end of the reporting period, the Company has been granted a total of **66** invention patents, **22** utility model patents, and **1** design patent.

#### Intellectual Property Search and Analysis

- Before launching each R&D project, the Company organizes professionals to conduct comprehensive intellectual property search and analysis using commercial patent databases. Through systematic data mining and claims comparison, the Company identifies technological gaps and infringement risks, providing legal and compliance support for R&D path planning.

#### Dynamic Tracking Mechanism

- The Company continuously monitors intellectual property trends in relevant technological fields. Upon detecting any changes in trends or potential risks, the Company promptly adjusts its R&D strategy to further reduce infringement risks, ensuring that R&D work remains legal, compliant, and forward-looking.

#### Building Patent-Specific Databases

- For key R&D projects, the Company has specifically built patent-focused databases. These databases integrate patent information from specific fields, providing centralized and precise technical references for R&D personnel, which strongly promotes R&D innovation.

#### External Cooperation

- During external cooperation, the Company conducts intellectual property ownership checks, infringement risk assessments, and technical value analyses based on actual needs, either through internal professional teams or by outsourcing to external agencies. This due diligence supports commercial decision-making and ensures compliance.

#### Intellectual Property Training

- To strengthen intellectual property awareness among all employees, the Company integrates intellectual property training deeply into R&D practices. The training content is made more targeted and practical, effectively improving training outcomes and embedding the concepts of respecting and protecting intellectual property into the Company's R&D culture.

## 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.

### Regulatory Compliance

- ◆ The whole process of R&D should refer to and follow the relevant laws and regulations.

### Human and Animal Subjects Protection

- ◆ 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

- ◆ Follow the scientific standards and the principle of honesty and trustworthiness.

### Reliable Data

- ◆ The whole process of R&D should be recorded, and the records must be timely, true, standardized and complete.

### Openness and Sharing

- ◆ Share research results and scientific resources openly within the permitted range.

## Industry Exchanges

The Company actively participates in various industry activities, sharing practical experiences and development achievements, and promoting the continuous development of the industry. In the future, the Company will continue to serve as a “leader” in technological innovation within the biopharmaceutical industry, strengthening the industry cluster effect and making greater contributions to the overall high-quality development of the pharmaceutical and health sector in China.



### Invited to Attend the 23rd China Biologics Conference: Discussing Advanced Vaccine Technology R&D and Internationalization

In May 2024, the 23rd China Biologics Conference (CBioPC2024) was held in Guangzhou. The Company was invited to attend the conference, where the Chief Scientist of BioKangtai and General Manager of BioMinhai, Zheng Haifa, participated in the “Vaccine Quality and R&D” session and delivered a keynote speech on *RSV Pre-F Antigen Design*.



The 23rd China Biologics Conference

### Invited to Attend the “First China Pharmaceutical Valley Future Biopharmaceutical Innovation Conference”

On November 16, the first “China Pharmaceutical Valley Future Biopharmaceutical Innovation Conference” was successfully held in Beijing. The Chief Scientist of BioKangtai and General Manager of BioMinhai, Zheng Haifa, was invited to attend the conference, where he delivered a speech on the Development Trends of Next-Generation Vaccines. He also joined other corporate representatives in unveiling the establishment of the “China Pharmaceutical Valley Biopharmaceutical Industry Alliance”.



The First China Pharmaceutical Valley Future Biopharmaceutical Innovation Conference

# Quality Control for Strengthening Product Safety

## Product Quality Management

### Governance

The Company complies with relevant laws and regulations, such as the *Pharmaceutical Administration Law of the People's Republic of China* and the *Vaccine Administration Law of the People's Republic of China*, and has developed a *Quality Manual*. A quality management system covering the entire product lifecycle has been established. Strict quality control standards are set for key stages of product development, production, storage, and distribution. Targeted quality management procedures have been formulated to ensure that all requirements related to safety, efficacy, and quality control in pharmaceutical regulations and registration standards are systematically implemented throughout the drug R&D, production, quality control, product release, storage, and transportation processes. This ensures that all stages, including raw material testing, product R&D, production, and distribution, meet the intended use and registration standards, guaranteeing product quality according to strict standards.



ISO 9001 Quality Management System Certification

The Company has established a Quality Management Committee, consisting of core management personnel and specially invited experts and scholars, to coordinate, communicate, consult, and evaluate quality management matters. This further strengthens quality management in production and operations and promotes continuous improvement of quality management. As of the end of the reporting period, BioMinhai has passed ISO 9001 Quality Management System certification. No major quality or safety incidents have occurred.

The Company places great importance on product quality and safety, organizing training courses that include corrective and preventive action management procedures, personnel hygiene management procedures, and more. In 2024, BioMinhai conducted compliance training on product quality and safety through the TMS online training system. The training matrix covers topics such as laws and regulations, biosafety, personnel control, equipment management, material control, sterility assurance, quality assurance, data reliability, pharmacovigilance, and job-specific skills. The pass rate for personnel assessments was 100%.

#### Key Performance Indicators

During the reporting period, the Company conducted **7,936** quality training sessions, with a total of **150,382** trainees and a total training duration of **11,536** hours.

### 2024 International Pharmaceutical Regulatory Training Series



In response to the evolving landscape of international regulatory requirements and to narrow the compliance gap between domestic practices and those of registration countries and international organizations (such as ICH, WHO, and PIC/S), the Company launched a training program aimed at enhancing its quality management system. Beginning in February 2024, the Company provided training on international GMP regulations and ICH guidelines to personnel from production and quality systems. Subject Matter Experts (SMEs) from internal trainers, QA, and the Quality Compliance Department were selected to lead the sessions. The training involved comprehensive comparisons of WHO, PIC/S, and Chinese GMP chapters, paired with gap analyses based on the Company's actual practices. A total of 18 training sessions were held, with 2,160 participants in attendance. This series of training sessions further promoted the standardization, scientific rigor, and forward-thinking development of the Company's quality management practices.

| Risk Type   | Risk Description   | Impact Duration | Value Chain Links of Impact | Financial Impact                                      | Response Measures  |
|---|--|-----------------|-----------------------------|---|--|
| Risk of Changes in Industry Policies              | The vaccine industry is subject to stringent administrative supervision, with strict regulations governing all aspects including R&D, production, sales, and distribution. In recent years, regulatory oversight in the industry has been increasingly tightened, placing higher demands on vaccine companies. Under such a regulatory environment, the Company must adapt in a timely manner to policy changes and regulatory requirements. | Long-term       | Entire value chain          | Decreased operating income; increased operating costs | The Company upholds the philosophy of high standards and strict requirements to ensure vaccine product quality. It stays abreast of policy developments and actively implements relevant measures to proactively address potential regulatory changes. In parallel, it continuously enhances its monitoring systems across R&D, production, and sales to mitigate operational risks arising from industry policy shifts. |
| Adverse Events Following Immunization (AEFI) Risk | Vaccine products are directly related to public health, and the R&D, production, sales, and distribution of vaccines are all subject to strict regulatory oversight. There is a possibility that adverse events may occur following vaccination.   | Short-term      | Downstream                  | Decreased operating income; increased operating costs | The Company strictly complies with the <i>Vaccine Administration Law</i> and the <i>Measures for the Reporting and Monitoring of Adverse Drug Reactions</i> , among other laws and regulations. It strengthens quality control of its vaccine products, improves its pharmacovigilance system, and ensures timely and lawful handling of adverse reactions following vaccination to mitigate related risks.              |

| Opportunity Type     | Opportunity Description  | Impact Duration | Value Chain Links of Impact | Financial Impact           | Response Measures   |
|----------------------|--|-----------------|-----------------------------|----------------------------|---|
| Market Opportunities | With economic development and rising living standards, consumers are placing greater emphasis on product and service quality, as well as safety and environmental sustainability. This demand trend provides the Company with opportunities to upgrade product safety and quality, and enhance brand image and market share. | Long-term       | Downstream                  | Increased operating income | <ul style="list-style-type: none"> <li>The Company will closely monitor industry development trends and cutting-edge innovative technologies, explore the application of new vaccine technology paths, and establish new technology platforms. The focus will be on improving the R&amp;D innovation system, accelerating new product R&amp;D and industrialization progress, and constructing a diversified and differentiated product matrix to enhance the market competitiveness of the Company's products.</li> <li>Align with market trends and adopt flexible pricing strategies. In response to the growing market demand for high-quality products, the Company conducts in-depth market research and precise analysis to optimize its product pricing system scientifically. While maintaining strict quality standards and ensuring reasonable corporate profits, the Company adopts more competitive pricing strategies to enhance product attractiveness and competitiveness in the market, thereby further expanding its market share.</li> </ul> |

### Impact, Risk and Opportunity Management

BioKangtai has established the Quality Risk Management Procedure, which applies scientific knowledge and experience to assess quality risks throughout the entire product lifecycle to ensure product quality. The Company conducts comprehensive evaluation, control, communication, and review of quality risks to keep the consequences of various uncertainties within an anticipated and acceptable range, thereby ensuring product quality compliance. By leveraging sufficient knowledge, facts, and data, the Company proactively forecasts potential future events and implements risk control measures to prevent hazards from occurring.

#### Risk Assessment

- Identify potential hazard events or risks that may arise; perform qualitative or quantitative analysis of the identified risks to evaluate their severity and provide support for risk prevention and control.

#### Risk Control

- Based on the risk assessment results and predefined risk acceptance criteria, if the risk exceeds an acceptable level, appropriate measures should be taken to reduce or eliminate the risk.

#### Risk Communication

- Throughout each stage of the risk management process, QA and relevant departments (including drug regulatory authorities, the industry, patients, and internal company stakeholders) should exchange and share information regarding the degree of risk and management practices, ensuring effective risk communication.

#### Output of Quality Risk Management

- Upon completing the risk assessment report, any identified countermeasures should be followed up through a dedicated CAPA process. Implementation of the response measures must comply with the *Corrective and Preventive Actions Management Procedure*.

#### Risk Audit

- Conduct risk monitoring. If residual risks remain unacceptable after implementing response measures, the response measures should be revised or replaced. The effectiveness of the new response measures must be assessed until the residual risk is within an acceptable range.

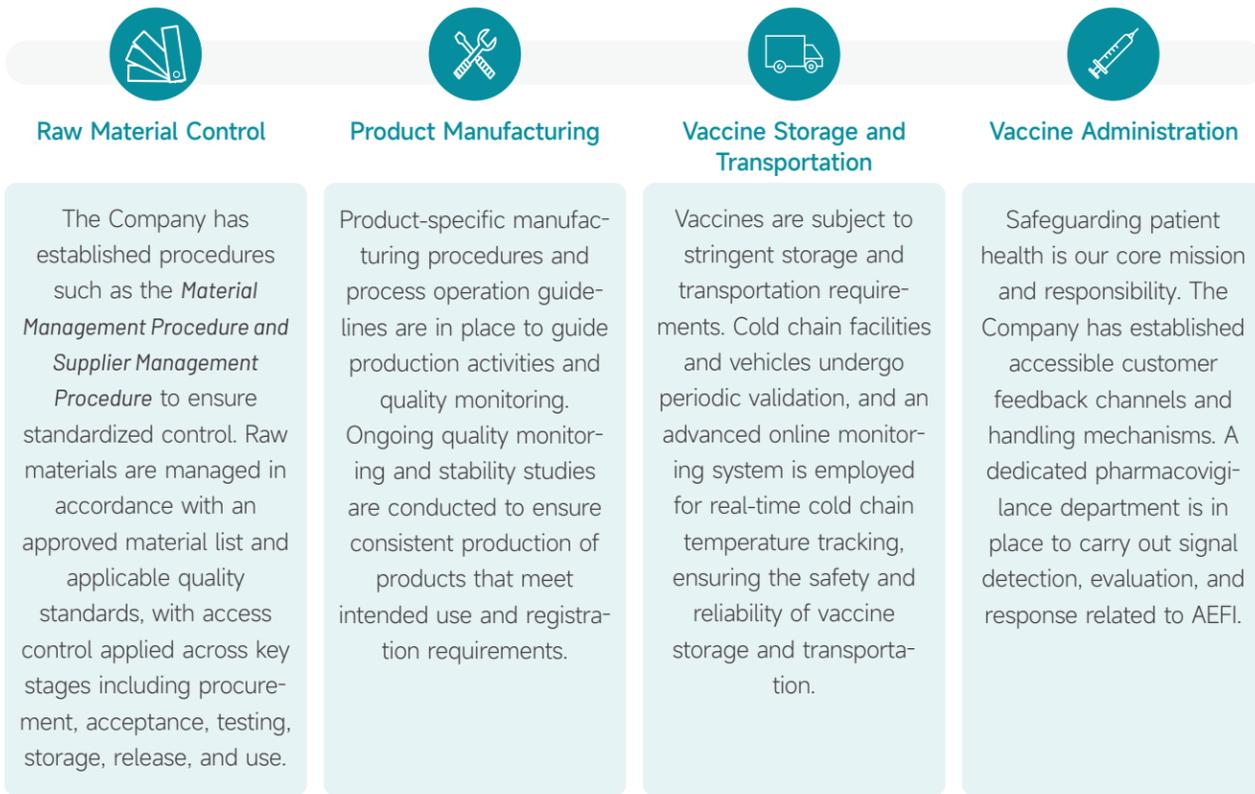
### Metrics and Targets

"Quality is life" is the core philosophy that underpins the Company's operations and development. Adhering strictly to the quality policy of "strict adherence to procedures, zero tolerance for falsified raw data, thorough investigation of every issue, zero release of defective products, and unwavering commitment to GMP management", the Company continues to foster a deep-rooted culture of quality and implements a "zero-defect" strategy to secure competitive advantage through excellence.

### Product Quality Assurance Measures

#### Whole-Life-Cycle Management

BioKangtai always regards product quality as a lifeline. On the basis of full compliance with China's vaccine regulatory framework, BioKangtai actively draws upon and incorporates international guidelines such as WHO, ICH, PIC/S, and EU GMP. A comprehensive pharmaceutical quality management system covering the entire product life cycle—spanning product R&D, technology transfer, commercial production, and post-marketing management—has been established. Strict management processes and requirements are implemented across all stages, including raw material control, product manufacturing, vaccine storage and transportation, and vaccine administration.



## Digital Management

The Company continues to enhance product quality control and improve the scientific management level of vaccine product industrialization. By continuously improving and perfecting the production quality management system, the Company has implemented a manufacturing execution system (MES) and laboratory information management system (LIMS). These systems enable the digitalization of the entire production and testing process, ensuring strict quality control. This approach guarantees the quality of products, ensuring the delivery of high-quality, safe, and effective vaccine products to society.

Manufacturing Execution System (MES)

This system integrates production instructions, electronic batch records, batch analysis, formulations, material and equipment management functions, enabling automatic data collection and electronic record-keeping for the entire production process. It ensures traceability throughout the process. In combination with other information systems, it establishes a "lifecycle" management system for vaccine production, enhances quality management levels, guarantees high-quality vaccine production, and promotes paperless production, reducing the use of paper records.

This system covers key aspects such as batch management, stability management, instrument management, reference material management, reagent management, and laboratory investigation management. It enables efficient integration and optimization of laboratory resources, ensuring the accuracy and reliability of laboratory data management.

Laboratory Information Management System (LIMS)

## Corrective and Preventive Action Management

The Company has developed procedures such as the *Deviation Management Procedure*, *Change Control Management Procedure*, and *Corrective and Preventive Action Management Procedure* in accordance with GMP management requirements. These procedures cover the entire production process, including deviation, change management, and risk control management, ensuring that products meet the intended use and pharmaceutical registration requirements.



### "Mistakes Shouldn't Hinder Progress" Training

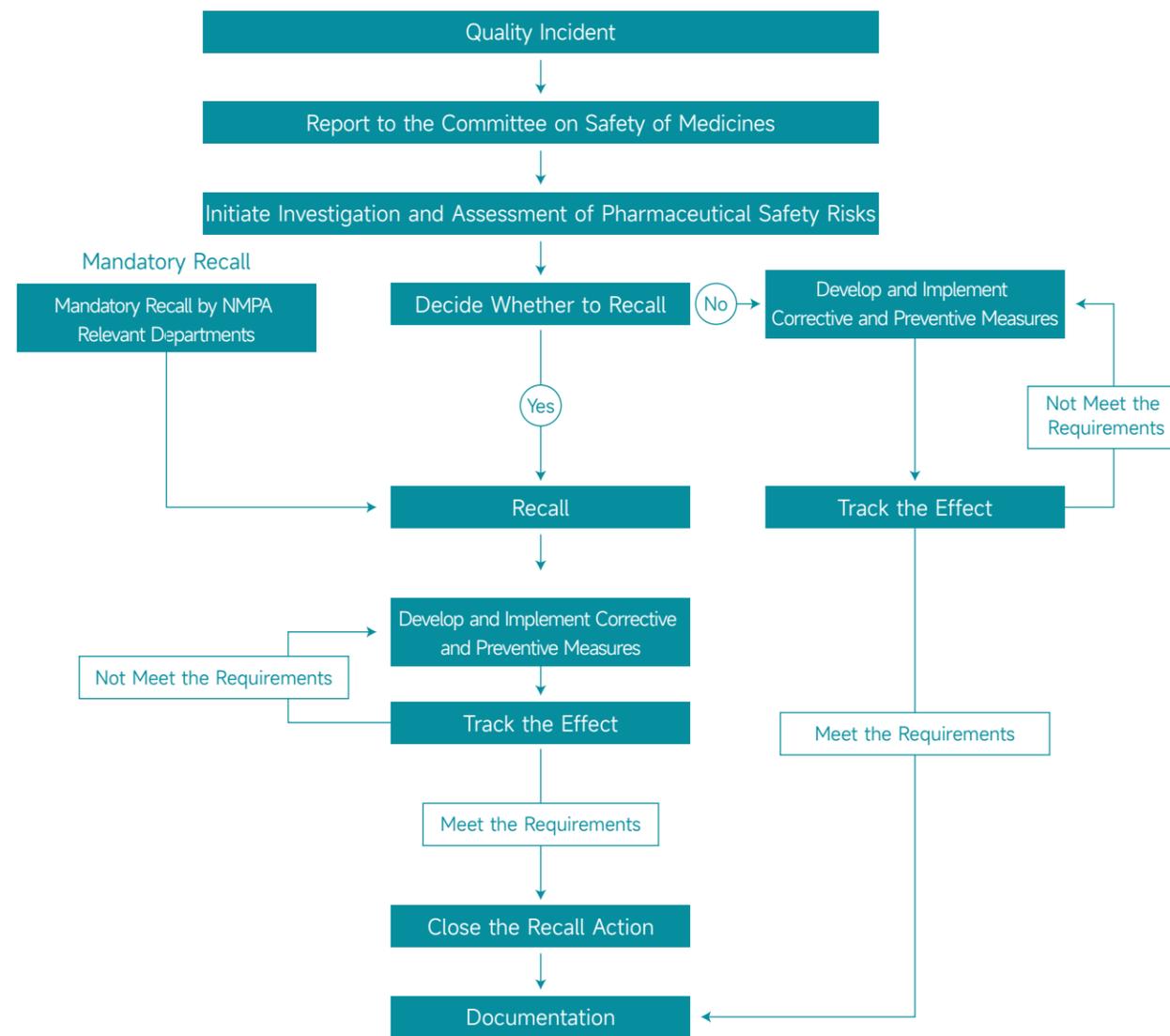
From March to April 2024, BioKangtai conducted a series of thematic training sessions titled "Mistakes Shouldn't Hinder Progress, Become a Better Version of Yourself". This training, jointly organized by the Quality Assurance Department and the Production Operations Center, consisted of 5 sessions. A total of 369 employees from various departments participated. During the training, employees proactively shared actual issues and lessons learned from their work, and discussed how to actively respond to risks that may cause mistakes. This helped promote both team and individual progress and fostered greater collective strength.



"Mistakes Shouldn't Hinder Progress" Training

## Product Recall

The Company has developed the Finished Product Recall Procedure, which specifies the scope, responsibilities, and content of the recall process to ensure that the recall of finished products can be initiated at any time and carried out quickly and effectively. Depending on the situation, the recall is classified into voluntary recall and mandatory recall. Based on the severity of the quality issue or other safety risks, recalls are further categorized into Level 1, Level 2, and Level 3 recalls. The Company regularly simulates recall scenarios to evaluate and ensure the effectiveness of the product recall system. During the reporting period, the Company did not experience any product recalls due to health and safety concerns.

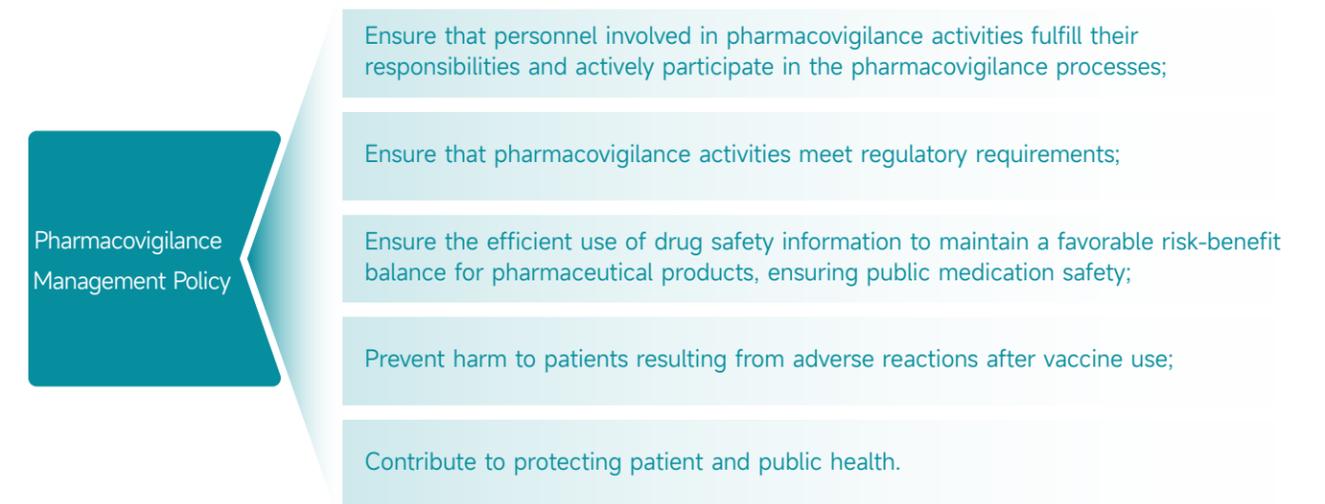


Recall Flowchart

## Pharmacovigilance

### Pharmacovigilance Management

The Company has established and continuously improves its pharmacovigilance system in accordance with the *Pharmaceutical Administration Law of the People's Republic of China*, the *Vaccine Administration Law of the People's Republic of China*, and the *Pharmacovigilance Quality Management Standards* and other relevant laws and regulations. The Company has formulated and continuously refined pharmacovigilance system documents to guide and regulate the smooth implementation of pharmacovigilance work. A Pharmaceutical Safety Committee has been established to handle major risk assessments, urgent or significant drug events, risk control decisions, and other major matters related to pharmacovigilance. A dedicated Pharmacovigilance Department is responsible for managing and improving the Company's pharmacovigilance activities.



### Pharmacovigilance Training

The Company has formulated the Pharmacovigilance Management Training Procedure and incorporated pharmacovigilance training into its Annual Training Plan. Training in pharmacovigilance knowledge is generally provided to two groups: dedicated pharmacovigilance personnel (members of the Pharmacovigilance Department) and non-dedicated personnel (employees outside the Pharmacovigilance Department). For non-dedicated personnel, the training includes company-wide sessions, onboarding training for new employees, and training for Marketing Center staff. With "protecting patient safety" as the core objective, the Company promotes continuous awareness and training to help all employees internalize and implement this fundamental requirement. In accordance with the Annual Training Plan, the Company provides systematic training for dedicated pharmacovigilance personnel to comprehensively enhance their professional capabilities. These trainings help personnel expand their knowledge base, improve technical skills, master risk identification and assessment methods, and strengthen their ability to respond to drug safety risks—ultimately improving both the efficiency and quality of pharmacovigilance work and ensuring the stable operation of the pharmacovigilance system. In line with compliance and risk prevention requirements, the Company conducts at least one annual training for Marketing Center staff on the collection and handling of suspected Adverse Events Following Immunization (AEFI). These sessions aim to deepen employees' understanding of AEFI monitoring and reporting, and to strengthen their awareness and ability to report safety information.

### Study Session on the Operational Guidelines for Pharmacovigilance Quality Management Standards for MAHs in Beijing-Tianjin-Hebei Region (Trial)



On March 13, 2024, the Pharmacovigilance Department organized a study session on the Operational Guidelines for Pharmacovigilance Quality Management Standards for MAHs in Beijing-Tianjin-Hebei Region (Trial). Through this training, the department enhanced its professional knowledge and revised the Company's pharmacovigilance system documentation in accordance with the guidelines. This ensures that pharmacovigilance activities remain compliant with current regulatory requirements.

## Pharmacovigilance Management Measures

The Company conducts monitoring, identification, assessment, and control of risks associated with its products during clinical trials and post-marketing use, and formulates corresponding response measures for different risk stages.

#### Pharmacovigilance in Clinical Trials

- ◆ The Pharmacovigilance Department of the Company has established the management procedures of clinical pharmacovigilance in accordance with the requirements of the relevant regulations, and standardized the management of pharmacovigilance for the clinical research of oral pentavalent reconstituted live attenuated rotavirus vaccine (Vero cell) and tetravalent influenza virus lysate vaccine, which ensured the smooth progress of the clinical research work.

#### Post-Marketing Risk Identification, Evaluation, and Control

- ◆ The Company has developed a Pharmacovigilance Plan to monitor the occurrence of AEFI in real time and conduct vaccine safety risk assessments.
- ◆ The Company actively expands information collection channels by means such as telephone communication and on-site visits to collect AEFI data related to the use of its vaccines. All data are monitored and managed according to established procedures.

#### Post-Marketing AEFI Monitoring and Reporting

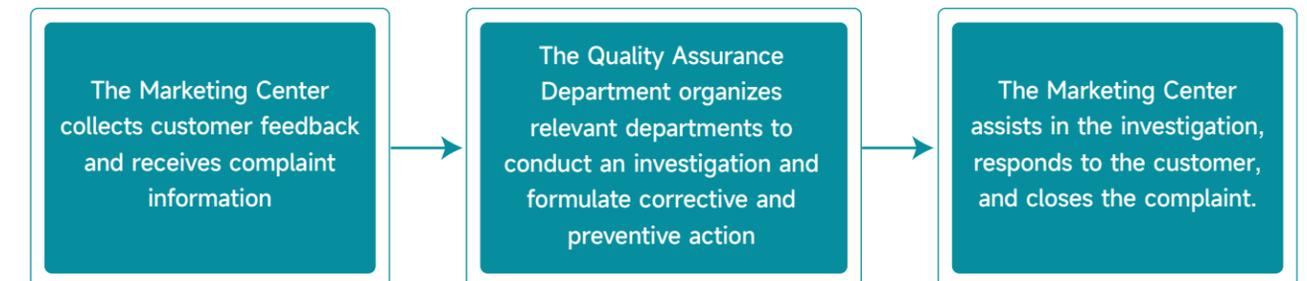
- ◆ A pharmacovigilance data management system has been introduced to collect and manage AEFI reports during both the clinical trial and post-marketing phases.



## Protection of Customers' Rights and Interests

### Customer Service Management

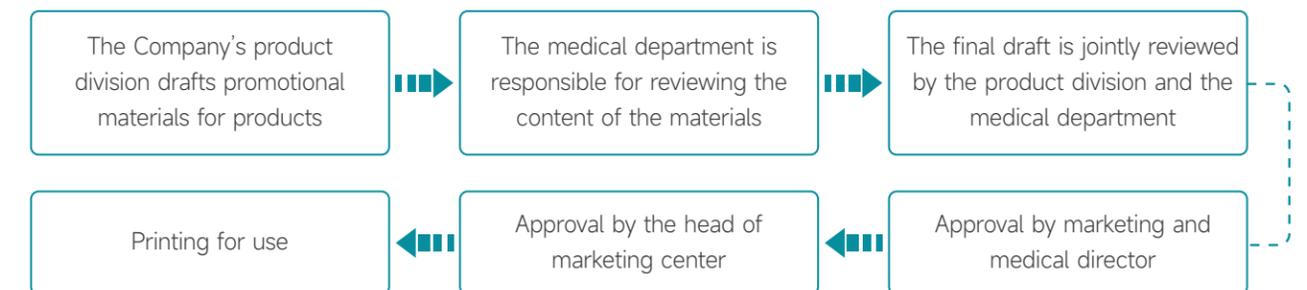
The Company has established comprehensive customer communication channels and complaint management procedures. By utilizing various means such as the 400 customer service hotline and feedback collection mechanisms, the Company promptly gathers customer feedback to ensure smooth communication. The Company has formulated the *Standard Operating Procedure for Medical Consultation and Complaint Handling* and the *User Complaint Management Procedure*, which respectively define the handling processes for medical inquiries and quality-related complaints. Upon receiving an inquiry, the Company responds in accordance with the *Standard Operating Procedure for Medical Consultation and Complaint Handling*. Upon receiving a quality complaint, the Company follows the *User Complaint Management Procedure* to promptly initiate internal communication and investigation, coordinate with relevant departments to formulate corrective and preventive actions, and ensure that issues are resolved in a timely and appropriate manner.



Customer Quality Complaint Handling Process

### Responsible Marketing

The Company strictly complies with 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 adheres to the principles of accuracy, clarity, and transparency in marketing and promotion. False advertising is strictly prohibited in all marketing activities. The Company has established the Regulations on the Production, Distribution, and Management of Promotional Materials and Items, which define the production process and approval procedures for promotional materials, and standardize the compliance review of marketing materials. Product promotional materials are prepared by the product team, with content reviewed by the Medical Affairs Department, jointly reviewed by the Marketing and Medical Directors, and finally approved by the Head of the Marketing Center, ensuring the accuracy, clarity, and transparency of marketing communications.



## Win-Win Cooperation for a Sustainable Supply Chain

The Company has formulated the *Supplier Management Measures*, Procurement Management Regulations, and other relevant policies to standardize procurement processes, improve supervision mechanisms, optimize supplier management, and enhance the stability of the supply chain. Suppliers are classified into four categories: key suppliers, strategic suppliers, general suppliers, and temporary suppliers, with distinct selection criteria established for each category.

### Admission of Suppliers

- Strict control over supplier qualification, with general qualification requirements set and category-specific qualification criteria established based on the type of goods supplied. Suppliers' business qualifications and material quality standards are thoroughly reviewed to ensure compliance with product quality and technical standards.

### Supplier Evaluation and Assessment

- The Company establishes a supplier audit and evaluation team that uses a quantitative scoring system to assess suppliers. Evaluation criteria include quality control, delivery timeliness, cost management, service levels, and other factors;
- When evaluating suppliers, evaluators should complete the *Supplier Evaluation Form* and take appropriate actions based on the results;
- After the evaluation, the purchasing staff should promptly notify the supplier in writing of the evaluation standards and results, and take corresponding actions based on the evaluation outcomes, offering suggestions to the supplier;

### Supplier Information Changes

- When a supplier informs the Company of any changes, the purchasing staff should identify and confirm whether the change will affect the subsequent material supply or services. For changes in suppliers of production materials, the change should also comply with the change control management documents of the GMP system.

### Elimination of Suppliers

- Suppliers that do not meet the standards should be eliminated promptly;
- The elimination of suppliers for production materials should strictly follow the Company's GMP system supplier management procedures.

Suppliers are important partners in the Company's commitment to its purpose of "produce the best vaccines to benefit mankind" and advancing sustainable development. To promote a sustainable supply chain, the Company has developed and implemented the *Supplier Code of Conduct*, which sets clear requirements for suppliers in areas such as legal compliance, human rights and labor, environmental protection, and business ethics. The Company is dedicated to working with its partners to build a compliant, trustworthy, and sustainable supply chain system. Additionally, the Company utilizes a digital procurement system, making the procurement inquiry and price comparison process more convenient and intuitive, reducing the error rate in the contract approval to material warehousing process, and improving overall work efficiency.

## Information Protection for Strengthening Data Security

### Information Security Management

BioKangtai strictly complies with the Cybersecurity Law of the People's Republic of China, the Data Security Law of the People's Republic of China, the Personal Information Protection Law of the People's Republic of China, and the Data Security Management Measures in the Industrial Sector among other laws and regulations. Following the ISO 27001 Information Security Management System certification standards, the Company has established a comprehensive information security management system in five areas: organization, management, technology, training, and supervision. The Company has clearly defined its cybersecurity and privacy protection policies, ensuring their integration into all stages of production, inspection, and operations. The Information Center is responsible for organizing and coordinating the Company's information security efforts and has set up dedicated positions to ensure the implementation of information security protection strategies and procedures. During the reporting period, the Company did not experience any major information security breaches.

The Company actively conducts information security training. Every year, in June and November, phased information security training is provided to all employees, covering topics such as updates to information security policies and procedures. In response to Information Security Week, the Company emphasizes the importance of information security through various channels, including departmental annual training, new employee onboarding training, and company bulletin boards. During the reporting period, the Company held a total of 10 information security training sessions.



Information Security Training

## Information Security Management Measures

The Company places high importance on information security protection. Through four key measures—strengthening network risk prevention and control, strictly managing account passwords and permissions, ensuring the security and stability of information systems, and improving emergency response mechanisms for unforeseen situations—the Company has built a robust information security barrier, ensuring the safe operation of information systems.

### Network Security Risk Prevention

By deploying advanced security technologies and tools (such as firewalls, situational awareness systems, WAF, intrusion prevention systems (IPS), database auditing systems, log auditing systems, vulnerability scanning, baseline checks, etc.), the Company ensures network security.

### Account Password and Permission Management

Strictly enforces the *Computerized System Account Management Regulations* to ensure that user permissions and password controls are properly allocated and effectively managed.

### Information System Security and Stability

Strictly follows the *Computerized System Security Management Regulations* and the *Operation and Maintenance Auditing & Risk Control System Operating Procedures* to ensure the stable operation and security of systems, with IT personnel's permissions classified, tiered, and minimized.

### Emergency Response for Unexpected Situations

The Company has developed a detailed *Network and Information System Emergency Response Plan* and conducts emergency drills annually to enhance the ability to respond to unforeseen incidents.

### Information Center Power Outage Emergency Drill



On July 26, 2024, the Information Center organized the *2024 Information Center Data Center Power Outage Emergency Drill*, with coordinated participation from the Equipment Department, Quality Assurance Department, and various business departments. This drill, which simulated a real power outage scenario, comprehensively tested the data center's business continuity protection mechanisms and the effectiveness of the emergency response plan. It validated the efficacy of the emergency procedures in the event of a power interruption and enhanced the team's ability to collaborate and respond to emergencies. Based on the potential risks exposed during the drill, the Information Center will further revise and improve the emergency response plan, clarifying responsibility assignments and response time requirements.

## Data Protection Measures

The Company adopts multi-layered, end-to-end protection measures to safeguard data security.



### Data Encryption and Masking

- Sensitive data is encrypted using high-strength encryption algorithms, and encryption software ensures that data remains encrypted during storage, transmission, and backup.
- Encryption technology is used to ensure files are usable in designated environments, while showing as garbled text outside the environment.
- Hidden file watermarks and screen watermarks are applied to prevent data leakage due to software screenshots or phone photos, which cannot be traced.

### Access Control and Permission Management

- Data access permissions are assigned based on the "least privilege principle", with access levels divided according to employee roles to prevent unauthorized personnel from accessing sensitive information.
- Multi-factor authentication (MFA) is deployed, combining passwords, biometrics, and other verification methods to enhance account security.

### Security Audits and Real-Time Monitoring

- Intrusion Detection Systems (IDS) tools are used for real-time monitoring to identify abnormal access behaviors and trigger alerts.
- Operational logs are recorded to track file creation, modification, and transmission activities, facilitating traceability and risk analysis.
- Internet behavior management is employed to effectively control the internal network and monitor abnormal traffic.

### Policy and Process Development

- Develop data classification and grading standards, clearly defining lifecycle management regulations for storage, transmission, destruction, and other processes.
- Establish emergency response plans and conduct regular data recovery drills to ensure the availability of backup data.



### Employee Training and Awareness Enhancement

- Conduct regular security training covering topics such as phishing email identification and secure operating procedures, reinforcing risk awareness among all employees.
- Conduct simulated attack tests (such as phishing drills) to assess employees' response capabilities and improve training programs based on the results.



- Deploy enterprise-level firewalls to block external attack paths and implement segmented management of the internal network for effective network isolation.
- Control the use of external devices such as USB drives on the production network, restricting unauthorized devices from copying files.
- Lock data on the production network to limit modifications and deletions.

## Customer Privacy Protection

The Company places high importance on customer privacy protection and strictly enforces confidentiality agreements. Exclusive access permissions are set for customer information to ensure compliance with information access policies. The Information Center regularly reviews permission configurations and promptly corrects any misassignments to prevent information leakage. At the same time, the Company strengthens network security defenses by adding application server isolation and bastion host protection measures to fully safeguard customer information security.

## Digital Transformation

BioKangtai's digital transformation focuses on production, covering an integrated business model from procurement and warehousing to production, inspection, and sales. The importance of this transformation is the Manufacturing Execution System (MES) project, which connects personnel, equipment, materials, and environments that are dispersed across different locations, regions, and departments. By integrating these systems across regions through the MES, the Company achieves efficient division of labor and rapid response capabilities. The use of an advanced industrial internet system enhances production and execution efficiency, thereby improving the overall utilization of resources at BioKangtai.



2024 Best Practice in Digital Transformation of Listed Companies

### Purchasing

The Company has introduced the SRM system for procurement source management

### Sales

The group's ERP system is used for unified management of sales orders and shipping, enabling real-time tracking of product sales flow



### Inspect

The Company employs the LIMS system for laboratory management, ensuring that the inspection process is controllable and that inspection reports are automatically generated

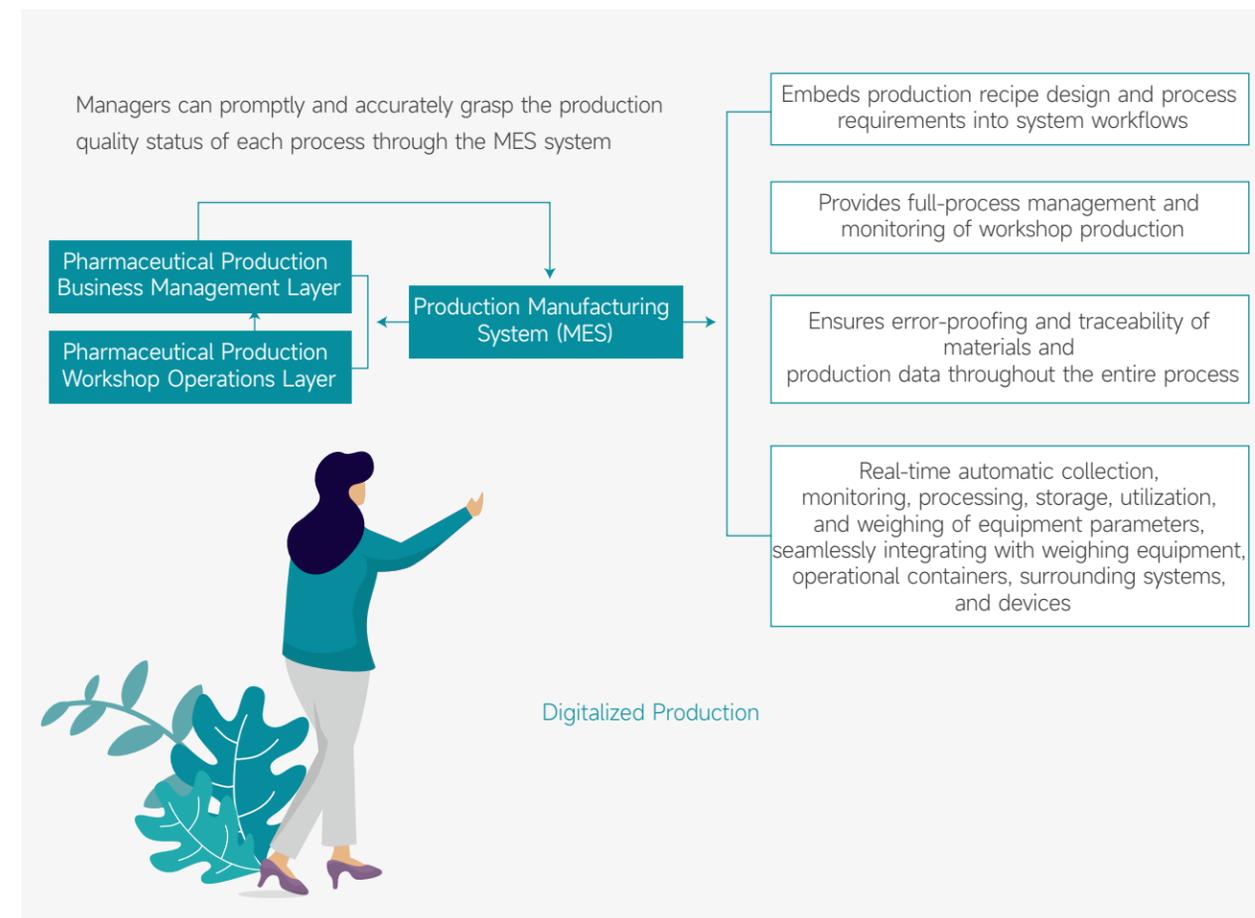
Digital Transformation Business Model

### Storage

In warehousing, the WMS system is implemented to enable traceability of raw and auxiliary materials, as well as product tracking, through "one product, one code"

### Production

For production, the MES system is used to comprehensively manage electronic batch records, ensuring full control of the production processes



## Environmental Compliance for Strengthening Pollution Prevention and Control

### Governance

The Company strictly complies with the Environmental Protection Law of the People's Republic of China and other relevant regulations. It has established the Environmental Protection Management Procedures, Environmental Factors and Hazard Source Identification and Control Procedures, and other systems. These procedures regulate environmental monitoring, environmental information reporting, and emergency response for environmental incidents, standardizing the Company's environmental practices in production and operations. The goal is to reduce pollutant emissions and promote the Company's sustainable development.

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 the 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. During the reporting period, the Company invested 3.8388 million yuan in environmental protection, and there were no instances of administrative penalties due to violations of environmental protection laws and regulations.

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

# 03

## Green and Low-Carbon Development for Building a Beautiful Ecological Home Together

Environmental Compliance for Strengthening Pollution Prevention and Control 54

Low Carbon and Energy Conservation for Addressing Climate Change 60

As of the end of the reporting period, BioKangtai and BioMinhai had obtained ISO 14001 Environmental Management System certification and passed clean production audits. BioKangtai was awarded the “Green Enterprise” title by Shenzhen City. In 2024, BioMinhai received both the national-level “Green Factory” title and the “Green Factory” title from Beijing City.



The Company continuously enhances employees’ environmental management awareness and professional capabilities through environmental protection training. During the reporting period, the Company conducted training sessions such as Solid Waste Management Training, General Industrial Solid Waste Training, and monthly EHS training. The Company also organized environmental protection engineers to participate in the Shenzhen Environmental Protection Director Capability Enhancement Assessment held by the Shenzhen Municipal Bureau of Ecology and Environment, and they obtained certification. BioMinhai organized environmental protection engineers to attend the Automatic Monitoring Compliance Training organized by the Ministry of Ecology and Environment, where they also obtained certification. During the reporting period, the Company conducted a total of 22 environmental protection training sessions.

## Strategy

| Risk Type                    | Risk Description   | Impact Duration      | Impact on Value Chain  | Financial Impact           | Response Measures  |
|------------------------------|--|----------------------|------------------------|----------------------------|--|
| Risk of Damage to Reputation | Negative environmental incidents reported by the media may lead to reduced consumer trust and cause partners to reassess business relationships. | Short to medium term | Operations, downstream | Decreased operating income | Actively disclose environmental protection measures, respond promptly to incidents, and strengthen brand public relations. |

| Opportunity Type            | Opportunity Description   | Impact Duration     | Impact on Value Chain | Financial Impact           | Response Measures  |
|-----------------------------|---|---------------------|-----------------------|----------------------------|--|
| Green Technology Innovation | Increase investment in green and environmentally friendly production technologies, promote the use of renewable energy, implement energy-saving controls and upgrades, reduce carbon emissions, and improve resource efficiency, ultimately reducing costs. | Medium to long term | Operations            | Increased operating income | Optimize production processes, reduce pollutant emissions, and improve resource utilization. |

## Impact, Risk, and Opportunity Management

The Company has formulated the Environmental Factors and Hazard Source Identification and Control Procedure to identify and assess environmental aspects in its operations, and to develop and implement targeted plans and measures.

### Risk Identification

- In accordance with the *List of Significant Environmental Aspects*, the Company identifies environmental factors involved in operational activities. Four major categories have been identified: solid waste, exhaust gas, wastewater, and noise. The results are recorded in the *Environmental Aspect Identification and Evaluation Form*.

### Risk Evaluation

- The EHS Office organizes departments to conduct risk evaluations of hazards, assessing the likelihood of safety incidents, employee capabilities, and monitoring data. These evaluations consider the frequency of exposure to risks and the severity of potential consequences. Risk levels of each environmental factor are determined based on the results.

### Risk Monitoring

- The Company monitors changes and additions to relevant laws and other requirements, conducts annual reviews, and sets environmental targets for the following year accordingly.

## Environmental Management Measures

### Environmental Impact Assessment

The Company strictly complies with the *Environmental Impact Assessment Law of the People’s Republic of China* and other relevant laws and regulations, fully implementing the “Three Simultaneities” principle for construction projects. During the reporting period, BioMinhai completed the self-inspection and acceptance of the newly constructed boiler project and the new international vaccine industrial base project. It also obtained the approval of the environmental impact report for the nucleic acid vaccine R&D and pilot-scale production project. In January 2025, BioKangtai submitted the environmental impact report for the technical development project of the Reassortant Rotavirus Vaccine, Live, Oral, Pentavalent (Vero Cell) to the Ecology and Environment Bureau and received official approval.

In accordance with the *Implementation Measures for Mandatory Environmental Pollution Liability Insurance in Shenzhen*, BioKangtai engaged a third-party assessment agency and purchased mandatory environmental pollution liability insurance. By integrating third-party insurance risk management with environmental management, the Company aims to prevent environmental pollution incidents.

## Environmental Monitoring and Management

The Company strictly monitors pollutant indicators and complies with the provisions of the *Pollutant Discharge Permit*, utilizing both manual and automated methods to record and monitor pollutants. During the reporting period, the Company conducted comprehensive monitoring of wastewater, exhaust gas, and noise within the plant in accordance with the permit requirements. A total of 1,031 monitoring data points were collected, with 100% compliance.

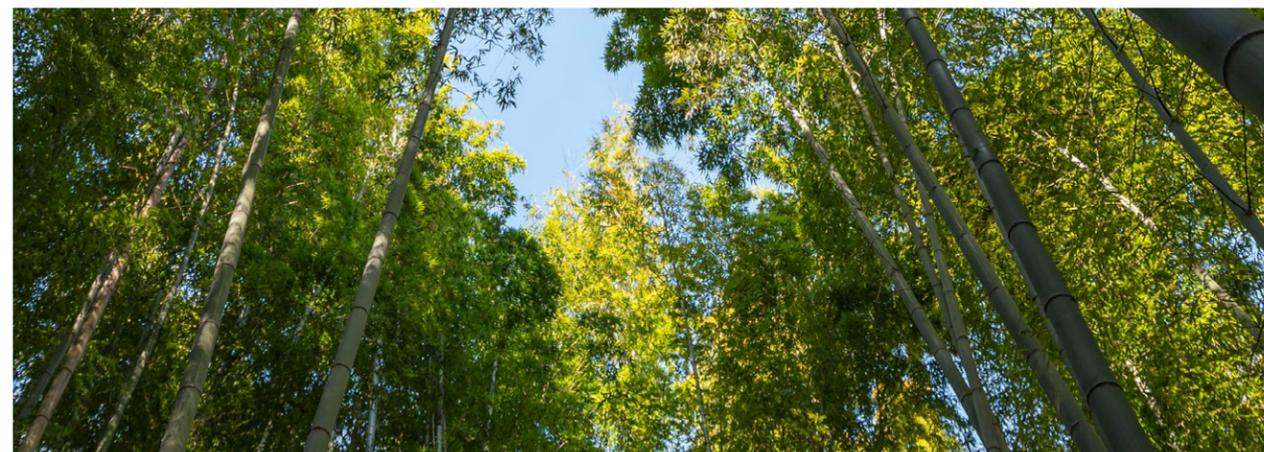
## Emergency Response Plan for Environmental Incidents

The Company has established the *Emergency Response Plan for Environmental Emergencies* and other related systems to improve emergency handling mechanisms for unexpected environmental events. These efforts aim to enhance the Company's emergency response capabilities and ensure that such incidents are managed in a timely, orderly, efficient, and appropriate manner. During the reporting period, the Company carried out emergency drills simulating scenarios such as organic solvent leakage in the hazardous waste warehouse and pipeline rupture/effluent discharge exceeding limits at the wastewater station. These exercises strengthened the Company's overall emergency response capabilities and improved its environmental risk management.

### Emergency Drill for Non-Compliant Wastewater Quality/Pipeline Rupture



On October 24, 2024, BioKangtai conducted an emergency drill for a scenario involving a rupture of the wastewater pipeline or excessive discharge. The drill simulated an emergency in which the effluent exceeded discharge standards or the wastewater pipeline ruptured. Focusing on operational standards, emergency response, and risk awareness, the drill improved employees' understanding of the risks associated with excessive wastewater discharge, enhanced the Company's emergency handling capabilities, and raised environmental awareness among staff.



## Pollution Prevention and Control

### Wastewater Management

The Company's wastewater primarily originates from production processes and domestic sewage. Key monitoring indicators include COD, ammonia nitrogen, total nitrogen, and pH. The Company strictly adheres to the *Law of the People's Republic of China on the Prevention and Control of Water Pollution*, *Emission Standards for Water Pollutants from Pharmaceutical Industry of Biotechnology*, *Integrated Wastewater Discharge Standard*, and other relevant laws, regulations, and normative documents. It has established internal policies such as the *Standard Operating Procedures for Sewage Treatment System*, *Wastewater Treatment Station Water Quality Monitoring and Management Regulations*, *Drainage Standard Operating Procedures*, and *Workshop Drainage Management System* to standardize the processes, monitoring, and operational requirements for wastewater treatment, ensuring that all generated wastewater is properly treated.

#### Wastewater Treatment Measures and Operational Performance

- The Company has a dedicated wastewater treatment station. Industrial wastewater is directed to the station for treatment before being discharged into the municipal sewage network.
- An online wastewater monitoring system is installed to monitor parameters such as COD and ammonia nitrogen daily. In addition, the Company engages third-party agencies to conduct regular sampling and testing to ensure compliance with discharge standards.
- The wastewater treatment station operates in strict accordance with national environmental protection regulations. All facilities, signs, and labels are in good condition, and records are complete and updated in real time. A professional environmental engineering company is commissioned to manage the operation of the wastewater treatment station, perform routine safety inspections of wastewater facilities within the plant, and promptly address any malfunctions.

| Indicators                            | Unit           | 2024         |
|---------------------------------------|----------------|--------------|
| Chemical Oxygen Demand (COD)          | ton            | 27.24        |
| Ammonia Nitrogen                      | ton            | 3.05         |
| Total Nitrogen                        | ton            | 0.19         |
| Total Phosphorus                      | ton            | 0.04         |
| Total Industrial Wastewater Discharge | m <sup>3</sup> | 1,075,107.08 |

## Waste Gas Management

The primary air pollutant generated by the Company is total volatile organic compounds (TVOCs). The Company strictly complies with the Law of the People’s Republic of China on the Prevention and Control of Atmospheric Pollution, Emission Standard for Odor Pollutants, Emission Standard of Air Pollutants for Pharmaceutical Industry, Emission Control Standard for Volatile Organic Compounds (VOCs) from Industrial Enterprises, and other relevant laws, regulations, and normative documents. The Exhaust Gas Emission Management System has been established to standardize exhaust gas emissions and daily emission practices, ensuring stable operation of all exhaust gas treatment facilities and proper treatment of all types of industrial emissions. During the reporting period, the Company discharged a total of 251,816,447 cubic meters of exhaust gas.

### Exhaust Gas Treatment Measures and Operational Performance

- Exhaust gases are treated using high-efficiency filters and activated carbon adsorption before discharge.
- Kitchen fume emissions are treated by dedicated fume purification devices before being released.
- The Company engages qualified third-party organizations to conduct regular exhaust gas testing in accordance with regulatory requirements to ensure all emissions comply with relevant standards.

## Waste Management

The Company classifies solid waste into general industrial solid waste, general domestic waste, hazardous waste, and medical waste based on their sources and characteristics. The Company has established the Solid Waste Management System to standardize the waste disposal process and ensure that all types of solid waste generated by the Company are properly treated.

The Company follows the principles of “reduction, harmlessness, and resource utilization” in solid waste management. The departments generating waste are responsible for managing the entire process, from waste generation to transfer. This includes recording the initial waste generation, packaging and barreling, labeling, and internal transportation. For hazardous and medical waste, the Company entrusts qualified third parties for disposal. For general industrial solid waste, qualified third parties are also commissioned for treatment, while general domestic waste is handed over to the sanitation department for processing.

| Indicator                                   | Unit           | 2024   |
|---|----------------|--------|
| General Industrial Solid Waste              | ton            | 142.79 |
| General Waste Generation per Unit Revenue   | kg/10,000 yuan | 0.54   |
| Hazardous Waste                             | ton            | 231.63 |
| Hazardous Waste Generation per Unit Revenue | kg/10,000 yuan | 0.87   |

## Low Carbon and Energy Conservation for Addressing Climate Change

BioKangtai actively responds to the national “dual carbon” strategy, giving high priority to the challenges posed by climate change. The Company practices the concept of green development through concrete actions, contributing to the protection of the Earth’s ecology and alleviating the climate crisis.

## Governance

The Company combines management-driven energy conservation with technology-driven energy-saving measures. It continuously improves its energy management structure, energy management system, energy measurement system, and energy-saving performance assessment and training programs. By strengthening energy control, the Company formulates annual energy control implementation plans and sets specific energy-saving and emission reduction targets.

The Company adheres to the Energy Conservation Law of the People’s Republic of China, Energy Management System Requirements and Guidelines, and other relevant laws and regulations. It has established the Energy Management System to standardize energy management practices, improve overall energy utilization efficiency, and respond to national energy conservation and emission reduction policies. The Company has set up an energy management team, led by the production head, with department staff as team members. The team is responsible for energy consumption, quota control, and daily statistics and analysis. As of the end of the reporting period, BioMinhai has passed ISO 50001 Energy Management System certification.

The Company engages a third-party agency to conduct energy audits, providing a comprehensive assessment of the Company’s energy management level and energy usage, identifying problems and weaknesses in energy utilization, uncovering energy-saving potential, exploring energy-saving directions, reducing energy consumption and production costs, and improving overall economic performance.

The Company has established the Energy Reward and Penalty Regulations, integrating energy management and energy-saving efforts into the performance appraisal system. These are treated as key indicators for year-end evaluations, with a standardized reward and penalty system to promote continuous improvement in energy management. Additionally, the Company places great emphasis on cultivating employees’ energy-saving awareness and provides training on warehouse energy-saving measures and energy control implementation plans.

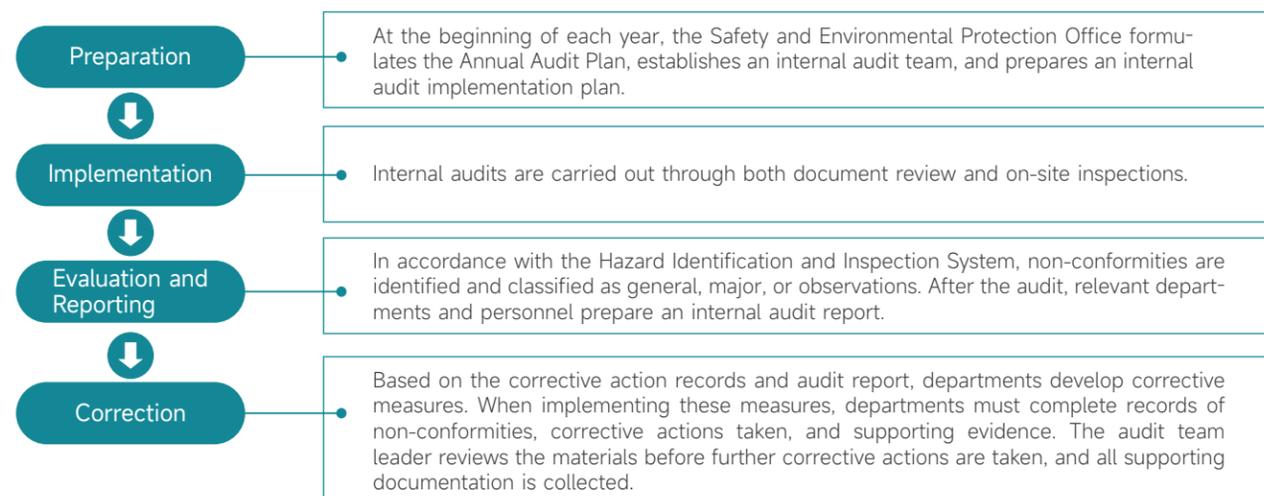
## Strategy

| Risk Type            | Risk Description  | Reporting Period | Value Chain Stage      | Financial Impact           | Response Measures   |
|----------------------|---|------------------|------------------------|----------------------------|---|
| Physical Risks       | Acute Risks<br>Frequent typhoons and floods in South China may damage production facilities and disrupt cold chain logistics.   | Short-term       | Operations, downstream | Decreased operating income | Reinforce disaster-resilient plant design (e.g., flood protection facilities); purchase property and liability insurance. |
|                      | Chronic Risks<br>Rising average annual temperatures in South and North China lead to increased energy consumption for cleanroom cooling, driving up production costs. | Long-term        | Operations             | Increased operating costs  | Upgrade high-energy-consuming cooling equipment.  |
| Transformation Risks | Policy Risks<br>Stricter domestic "dual carbon" policies lead to increased carbon emission costs.   | Mid-term         | Operations             | Increased operating costs  | Participate in the carbon trading market to offset part of the emissions.   |

| Opportunity Type           | Opportunity Description   | Impact Duration | Impact on Value Chain | Financial Impact          | Response Measures   |
|----------------------------|---|-----------------|-----------------------|---------------------------|---|
| Improved Energy Efficiency | By adopting advanced energy management and conservation technologies, energy efficiency can be enhanced, reducing energy consumption and costs. | Long-term       | Downstream            | Decreased operating costs | Improve energy efficiency through energy audits, equipment upgrades, and employee training. |

## Impact, Risk, and Opportunity Management

The Company places great importance on the risks and opportunities brought about by climate change, continuously monitoring changes in the external environment and adjusting internal business planning accordingly. It dynamically optimizes its climate risk response strategies.



## Metrics and Targets

The Company primarily consumes electricity, steam, natural gas, and small amounts of gasoline, diesel, and liquefied petroleum gas during production. Electricity is sourced from the municipal power grid and is mainly used for production equipment. Steam is primarily used for process equipment and air conditioning. Natural gas is mainly consumed in boiler operations and the cafeteria. Gasoline is used for company vehicles, while diesel is used for emergency power generation and routine generator maintenance.

| Indicator                   | Unit                  | 2024       |
|-----------------------------|-----------------------|------------|
| Natural Gas                 | 10,000 m <sup>3</sup> | 889.86     |
| Gasoline                    | ton                   | 37.54      |
| Diesel                      | ton                   | 124.42     |
| Total Purchased Electricity | kWh                   | 96,606,866 |
| Total Purchased Heat        | GJ                    | 227,379.62 |

| GHG Emission Scope | Source                            | Usage Phase   |
|--------------------|-----------------------------------|---|
| Scope 1            | Natural Gas<br>Diesel<br>Gasoline | Boilers and cafeteria<br>Mainly used for diesel generators and transport vehicles<br>Passenger vehicles                 |
| Scope 2            | Purchased Electricity<br>Steam    | Production departments, auxiliary departments, and non-production departments<br>Process equipment and air conditioning |

| Indicator                                | Unit                                      | 2024       |
|--|---|------------|
| Direct GreenhouseGas Emissions           | tCO <sub>2</sub> e                        | 19,829.65  |
| Indirect GreenhouseGas Emissions         | tCO <sub>2</sub> e                        | 86,228.19  |
| Total GHG Emissions(Scope 1 & Scope 2)   | tCO <sub>2</sub> e                        | 106,057.84 |
| Greenhouse Gas Emission per Unit Revenue | tCO <sub>2</sub> e/10,000 yuan of revenue | 0.40       |

## Climate Action

### Technological Upgrades

The Company actively implements targeted and effective energy-saving measures to reduce energy consumption, achieving both economic and environmental benefits.

| Entity    | Project Name                                    | Operation Status and Results   |
|-----------|---|--|
| BioMinhai | Hot Water System Temperature Adjustment Project | The air conditioning hot water system operates at different temperatures in summer and winter. In summer, the supply temperature is lowered to reduce the temperature difference with the environment, minimizing unnecessary heat loss and reducing operating costs. This saves approximately 18.26 tce/year, generating RMB 150,000 in economic benefits annually. |
|           | Air Compressor Replacement Project              | Two air compressors at 2B Power Station were replaced to improve equipment efficiency and reduce operational costs. This saves approximately 9.73 tce/year, generating RMB 80,000 in economic benefits annually.   |
|           | Waste Heat Utilization Project                  | The air conditioning hot water units were modified to include a condensate recovery device indoors instead of direct discharge, thereby enhancing waste heat utilization.  |

### Digital Management

BioKangtai has established a regular reporting mechanism for energy usage, with monthly reports on natural gas and electricity consumption. Departments are required to develop and implement energy control plans to strengthen energy management. BioMinhai has implemented a Smart Building Energy Management System, enabling automatic generation of energy reports and statistical analysis. This system supports functions such as energy diagnostics and monitoring, enhancing both energy efficiency and the Company's capacity for refined energy management.



Smart Management System

### Using Clean Energy

BioKangtai and its subsidiary BioMinhai have actively addressed climate change through carbon trading and the purchase of green electricity, laying a solid foundation for sustainable development and green transformation. In 2024, BioKangtai fulfilled its compliance obligations by purchasing 328 tonnes of carbon emission quotas and procuring 7,580 MWh of green electricity, thereby reducing 2,932.70 tonnes of CO<sub>2</sub> emissions. BioMinhai purchased 12,364.8 MWh of green electricity through electricity market transactions, achieving a CO<sub>2</sub> emissions reduction of 8,378.39 tonnes, effectively contributing to energy structure optimization and emission reduction goals. Moreover, BioMinhai has signed a multi-year interprovincial bilateral agreement for green electricity trading for 2025–2027, which will secure a stable supply of electricity with green attributes at fixed prices throughout the contract period—further advancing the Company's sustainable development objectives.

Note: CO<sub>2</sub> emission reduction data are calculated based on the regional average power grid CO<sub>2</sub> emission factor published in the Ministry of Ecology and Environment's 2022 Carbon Emission Factors for Electricity.

### Water Resource Management

The Company's water supply is sourced from the municipal water system. Water is not a primary resource consumed during production processes, and the risk of water scarcity remains low. In addition, the facility is equipped with production water tanks and greywater storage tanks to mitigate short-term water shortage emergencies. BioMinhai implements multiple water-saving initiatives, including the establishment of rainwater reuse systems, greywater recycling systems, and advanced purified water preparation systems. It also utilizes water-saving sanitary fixtures and recovers boiler steam condensate to reduce water consumption. As of the end of the reporting period, BioMinhai had been recognized as a Water-Saving Enterprise of Beijing.

| Indicator                          | Unit                        | 2024      |
|------------------------------------|-----------------------------|-----------|
| Water Consumption (Municipal)      | m <sup>3</sup>              | 1,297,970 |
| Water Consumption per Unit Revenue | m <sup>3</sup> /10,000 yuan | 4.89      |





# 04

## Uniting Hearts and Efforts for Building a Warm and Inclusive Workplace

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## People-Oriented Approach for Protection of Employees' Rights and Interests

The Company upholds the core value of "dedication to people's health", and strictly complies with relevant laws and regulations such as the Labor Law and the Labor Contract Law. A comprehensive suite of human resource management systems has been established covering recruitment, development, promotion, benefits, and employee rights protection, aiming to foster a harmonious and stable labor relationship. The Company firmly prohibits all forms of child labor and forced labor, and is committed to creating a workplace environment that is equal, inclusive, democratic, and harmonious, thereby cultivating a positive and healthy corporate culture for all employees.

### Labor Management

The Company has established a series of internal regulations, including the Labor Contract Management Measures and Recruitment Management Measures, to continuously optimize the employee hiring and management system, ensuring compliance in recruitment and employment practices while fully protecting employee rights.

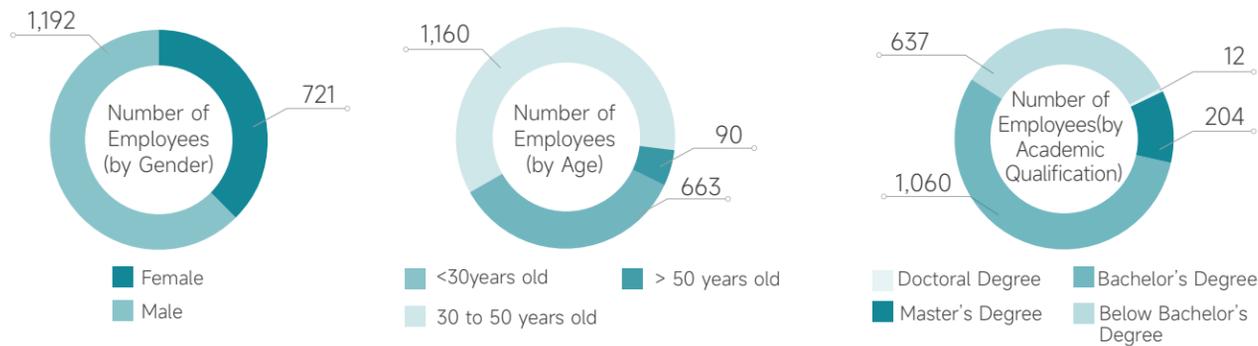
Adopting a talent attraction strategy based on "career appeal, compensation appeal, development appeal, and cultural appeal", the Company places great emphasis on cooperation with research institutions and universities. It recruits outstanding talent through multiple channels, including online recruitment, headhunting services, campus recruitment, internal recommendations, and on-site recruitment events. The Company also offers positions for veterans and disabled individuals.

#### [Key Performance Indicators]

During the reporting period, the Company hired **169** new employees, including **52** female employees and **117** male employees; **200** employees left, with an employee turnover rate of **7.52%**.

As of the end of the reporting period, the Company employed a total of **1,913** employees, including **18** disabled employees and **73** employees from minority ethnic groups; **100%** of labor contracts were signed.





The company advocates the values of labor governance featuring diversity, equality, and inclusion. Upholding the principle of equal pay for equal work, it adheres to the orientation of job requirements, ensuring that there is no discrimination of any form in terms of gender, age, cultural and educational background, race, religious belief, etc. It fully respects and accepts individual differences. To further clarify this commitment, the company has issued the "Public Statement on Employee Diversity Initiatives," firmly believing that the diversity of employees is a key force driving continuous innovation and achieving high-quality development. In order to create a more inclusive work environment, the company actively promotes respect for diverse cultures and values, and facilitates understanding and trust among employees. At the same time, the company has established a dedicated reporting channel to effectively prevent and address inappropriate behaviors such as discrimination, harassment, and bullying, and earnestly safeguard the legitimate rights and interests of employees.

## Democratic Governance

The Company fully respects employees' right to freely associate and actively safeguards their rights to information, supervision, and participation. The Company has established a labor union responsible for organizing the employee congress. It supports employees in exercising their democratic rights in accordance with the law, represents employees in seeking legitimate and lawful rights and interests, with a focus on protecting the rights of female employees, disabled employees, and other groups. This promotes the continuous optimization of internal information flow and democratic management. The proportion of union members among active employees is 87.5%. During the reporting period, BioKangtai conducted an employee satisfaction survey, with a result of 80.95%.

## Compensation and Benefits

### Employee Compensation

The Company formulates the Compensation Management Measures in alignment with its business strategy, implementing a compensation policy that combines position and individual capabilities. Adhering to the principle of "efficiency first, fairness considered, and distribution based on labor", the Company continuously improves its compensation system to enhance the core competitiveness of its human resources. The structure of employee compensation consists of basic salary, position salary, confidentiality allowance, performance bonus, subsidies (allowances), welfare expenses, and special wages. Employee compensation is closely linked to daily work performance. Based on individual performance assessments and annual reviews, employees are evaluated for their job levels and salary adjustments, resulting in a reasonable salary ladder distribution that motivates employees' enthusiasm and creativity, providing high-quality human capital for the Company's sustainable development.

## Performance Appeals and Feedback

The Company has established systems such as the Compensation Management Measures, Performance Management System, and Compensation Calculation Guidelines to standardize the compensation assessment and feedback processes. These systems follow the PDCA (Plan-Do-Check-Act) cycle, with a primary focus on quantitative performance evaluation and supplementary qualitative assessments. The Company continuously improves the compensation and performance system based on job value and individual capabilities, strengthening the connection between employee income levels and the Company's business performance. Upholding the principle of two-way communication, the Company addresses issues employees may encounter in achieving performance targets and provides necessary assistance, continually enhancing employee work performance and job satisfaction. Department supervisors evaluate employee performance through performance appraisal forms. If employees have any doubts about the results, they can contact their supervisors to provide feedback or file an appeal.



Performance Management

## Employee Benefits

The Company has established systems such as the Compensation and Benefits Management System, Benefits Management Measures, and Five Social Insurances and One Housing Fund Management Measures to continuously improve its benefits system.

| Statutory Benefits   | Subsidized Benefits  | Festive Benefits  | Health Welfare         | Vacation Benefits  |
|--|--|---|------------------------|--|
| Pension insurance, medical insurance, work-related injury insurance, unemployment insurance, maternity insurance, and housing provident fund | Seniority subsidy, educational subsidy, housing subsidy, overtime pay, meal subsidy, high-temperature/heating subsidy, night shift allowance, etc. | International Women's Day gifts, birthday gifts, holiday allowances | Annual Health Check-up | Paid leave, sick leave, work injury leave, maternity leave, etc. |

## Training and Development

### Employee Training

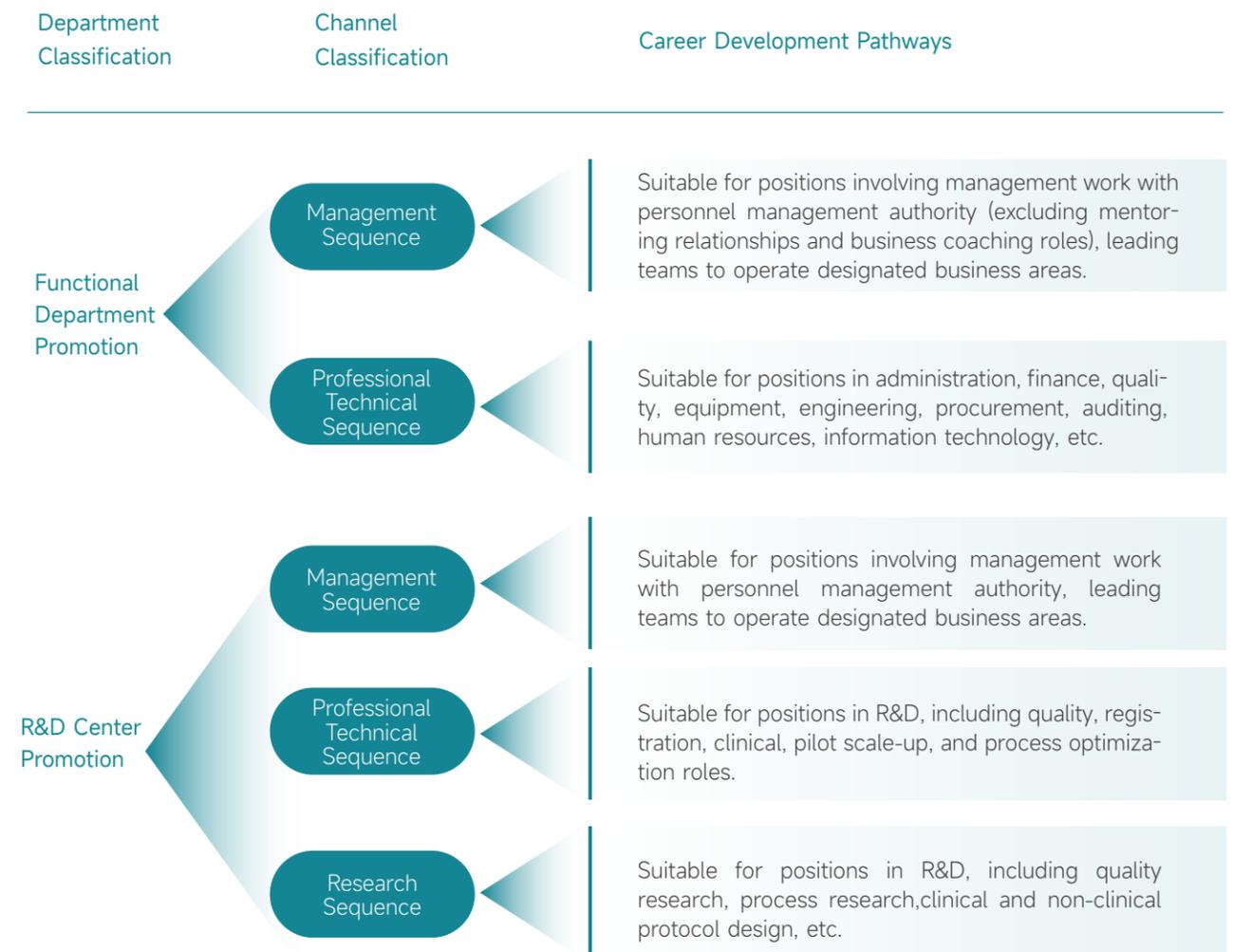
The Company attaches great importance to talent cultivation and development. Based on the Company's strategy and the needs of its talent pipeline, the Company has formulated the Training and Development System and annual training plans. It has established a talent development platform and training system to continuously enhance employees' vision, professional competence, and to reinforce professional ethics, ensuring the talent support necessary for the Company's strategic goals and sustainable development. During the reporting period, the Company invested 1.0709 million yuan in employee training.

| Training Categories                       | Content  |
|---|--|
| New Employee Training                     | New employees must undergo orientation training after their probation period. Only those who pass the training are allowed to begin working.   |
| Professional Technical Training           | Based on the knowledge/skills required for each position and career development characteristics, various departments focus on developing and enhancing professional skills.  |
| Management Training (Succession Planning) | According to the Company's human resources development needs, the HR department manages the management pipeline in a tiered and classified manner, developing and implementing personalized development plans.   |
| External Training and Assignments         | In accordance with the External Training and Assignment Management Measures, the HR department plans and arranges for management and technical personnel to participate in external training, academic exchanges, site visits, or invites senior experts and professional trainers to conduct specialized training at the Company. |



### Employee Development

The Company attaches great importance to employees' career development and has formulated the Promotion Management Guidelines. It adopts a graded management strategy combining trials, evaluations, and appointments, and has established three career development paths: the "Management Sequence", "Professional Sequence", and "Research Sequence". These paths provide employees with diversified growth opportunities, allowing them to define their career development based on their strengths and characteristics, and facilitating the efficient alignment of talent with positions. During the reporting period, 387 employees were internally transferred, accounting for 18.42% of the total workforce.



BioKangtai encourages employees to pursue continuing education and self-improvement in accordance with the Benefits Management Measures. Employees who obtain professional certificates relevant to their positions through self-study exams, online education, professional qualification exams, title examinations, or various training programs organized by external organizations will receive various types of support measures from the Company, depending on the situation.

## Employee Care

### Support for Employees in Difficulty

The Company shows care for employees who are hospitalized due to illness, offers condolences to the families of deceased colleagues, and proactively applies for hardship subsidies for employees suffering from serious illnesses. BioKangtai has established the Kangxin Fund specifically to support employees in need.

### Caring for Female Employees

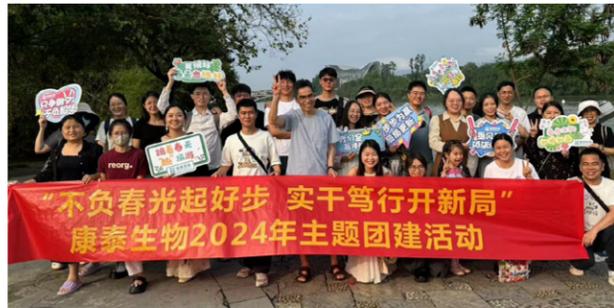
The Company is committed to supporting the development of female employees by providing equal employment opportunities. On International Women's Day, the Company organizes themed activities to show appreciation and enhance the sense of belonging among female employees. During the reporting period, women accounted for 29.41% of the Company's management; 50 employees took maternity leave, with a 100% return-to-work rate; and 130 employees took parental leave, also with a 100% return-to-work rate.



Women's Day Flower Arranging Activity

### Employee Activities

The Company actively organizes a variety of employee activities to foster a vibrant corporate culture. Activities are planned around traditional festivals to create a festive atmosphere. Basketball games and parent-child events are held to enhance team cohesion and unity. Departmental team-building activities are promoted to strengthen collaboration, and science knowledge quizzes are organized to improve overall literacy.



Team Building Activities



Mid-Autumn Festival Events



Team-Building Activities



Basketball Matches

## Safe Production for Safeguarding Employee Health

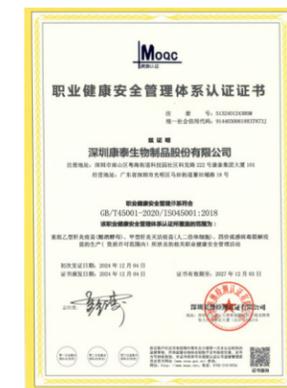
The Company adheres to the principle of "safety first, with a focus on prevention", and strictly complies with relevant laws and regulations such as the Law of the People's Republic of China on Work Safety and the Law of the People's Republic of China on Prevention and Control of Occupational Diseases. A comprehensive occupational health and safety management system has been established to create a healthy and safe working environment for employees. During the reporting period, the Company did not experience any major safety incidents.

## Safety Production Management

### Safety Production Management System

The Company has established an internal safety production management system in accordance with policies such as the Industrial Safety Management Procedures, EHS System Policy, Objectives and Management Plan, EHS Job Responsibilities, and Hazardous Chemical Management System. The Company designates the principal executive as the first person responsible for work safety, who provides overall leadership for safety management. The Safety Director assists in overseeing safety operations, while all departments collaborate to minimize or control risks in the production process, prevent accidents, and reinforce the safety defense line. As of the end of the reporting period, BioKangtai and BioMinhai had obtained ISO 45001 Occupational Health and Safety Management System certification.

The Company strictly enforces the work safety accountability system by organizing all employees to sign safety responsibility agreements annually, ensuring that every employee clearly understands their respective safety duties. Each year, the Company formulates an annual safety management plan, setting clear safety goals and indicators for each department. Departmental audits are conducted through management reviews to reinforce safety management at all levels. In addition, the Company actively promotes a culture of safety by organizing safety knowledge competitions, Safety Consultation Day events, and safety education and training sessions to continuously enhance employees' awareness of work safety.



ISO 45001 Occupational Health and Safety Management System Certification

### Organizing the “Ankang Cup” Knowledge Competition

During the 23rd National “Work Safety Month”, the Company hosted the 2024 “Ankang Cup” Safety Knowledge and Skills Competition to foster a strong atmosphere aligned with the theme “Everyone Talks Safety, Everyone Knows Emergency Response — Ensuring Unobstructed Life Channels”. The competition comprised both a theoretical quiz and hands-on practical challenges, featuring rich content with a strong focus on assessing safety skills. Multiple teams competed intensely, and various awards were presented. After the event, safety manuals were distributed to safety officers. This competition injected new vitality into the Company’s safety culture, strengthened the foundation of its safety management efforts, and further promoted the ongoing development of a robust safety culture to support the Company’s sustainable and healthy growth.

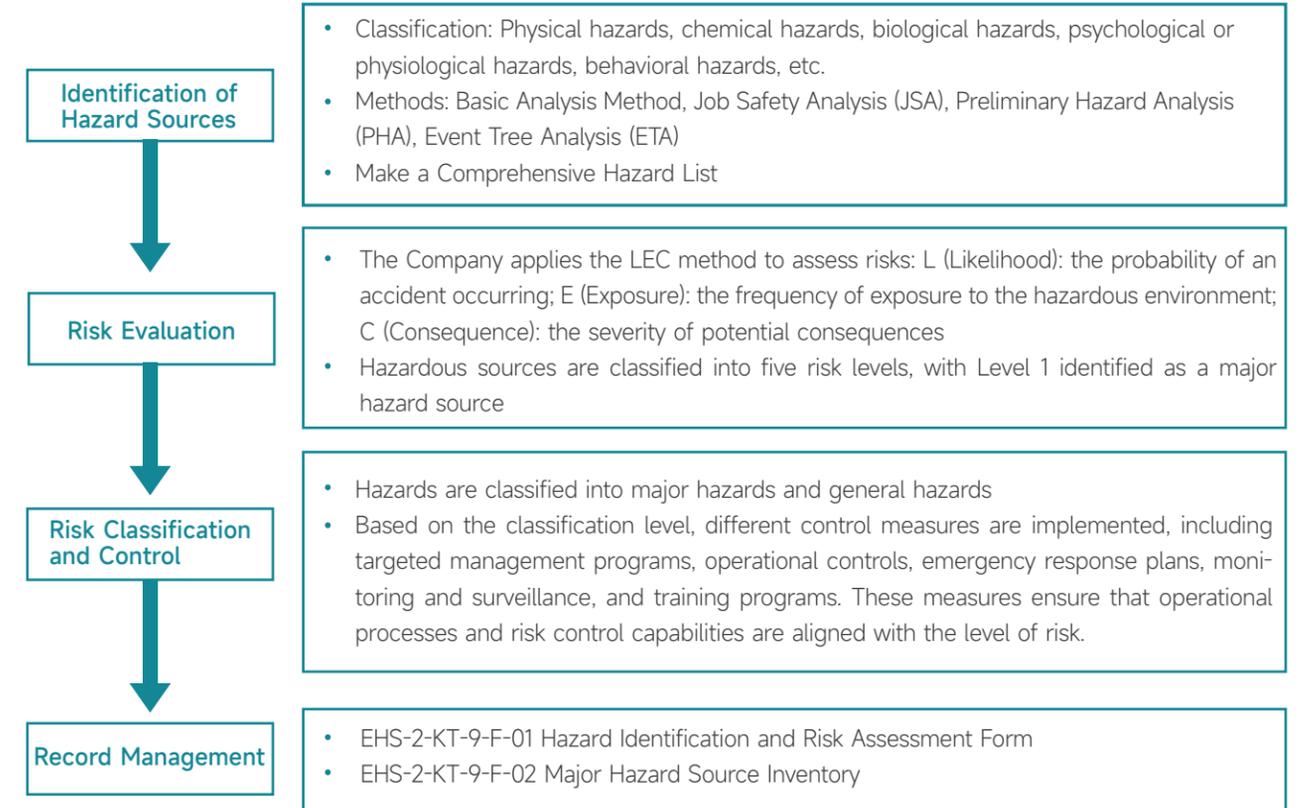


“Ankang Cup” Knowledge Competition

## Safety Production Risk Management

### ► Risk Identification and Assessment

The Company has established standardized procedures for hazard identification, control, and hidden danger investigation based on the Hazard Identification and Risk Assessment Management Procedure and the Industrial Safety Management Procedure. A dedicated Hazard Identification and Risk Assessment Team has been established to identify, evaluate, and implement tiered control of risks. For each identified hazard, the team assesses the likelihood of occurrence, frequency of exposure, and severity of potential consequences, and formulates corresponding risk control measures according to the classification level.



Hazard Identification and Risk Assessment Management Procedure

### ► Hazard Identification

The Company has established a regular safety hazard identification mechanism based on the EHS-3-KT-S-02 EHS Hazard Identification and Rectification System, organizing personnel to conduct comprehensive hazard inspections periodically. Safety hazards and issues identified are registered, and a rectification tracking system is established.

#### [Key Performance Indicators]

During the reporting period, the Company organized **36** special safety inspections, with additional inspections including construction inspections, holiday inspections, departmental self-inspections, fire safety inspections, and routine inspections.

The Company relies on its safety production management system and, in combination with its main risks, implements control measures for special equipment, biosafety, and other areas, effectively reducing the occurrence of safety accidents caused by critical hazard points.

| Key Stage                    | Specific Actions  |
|------------------------------|---|
| Special Equipment Management | The Company implements full-process management of special equipment through measures such as equipment declaration and certification, information verification, establishing records, training operators to prevent unlicensed operations, conducting regular inspections, and performing routine maintenance checks and handling of abnormalities. |
| Biosafety Management         | Identifying the characteristics of pathogenic microorganisms, risks associated with production processes, and product inspections. Considering legal and regulatory requirements, implementation costs, and expected outcomes, and selecting individual or combined measures while balancing stakeholder interests and preferences for measures.    |

### ► Emergency Plans and Drills

The Company has developed the Safety Production Emergency Preparedness and Response Control Procedure, and has prepared corresponding comprehensive plans, special plans, and on-site disposal plans based on the severity of production accidents to effectively respond to potential emergencies. The Company conducts comprehensive plan drills and special plan drills annually, and each department performs an on-site disposal plan drill once a year to enhance employees' emergency response and self-rescue capabilities, thereby effectively reducing accident losses and casualties during incidents. Additionally, the Company continuously improves the plans based on drill outcomes to ensure their practicality and relevance. During the reporting period, the Company carried out 58 emergency drills.

## Occupational Health Management

In accordance with the requirements of the ISO 45001 Occupational Health and Safety Management System, the Company has established a comprehensive occupational health and safety management system by developing policies such as the Occupational Health Management Procedure and the Labor Protection Equipment Management System. The EHS Committee is responsible for approving the goals of occupational health and occupational disease prevention work and the plans to achieve these goals, as well as regularly supervising and inspecting the implementation of these plans. The EHS Office is tasked with carrying out specific activities and is equipped with personnel responsible for occupational health management.



Visit to the "National Professional Technical Talent Training Base for Occupational Disease Prevention and Control"



# 05

## Staying True to Our Mission and Joining Hands to Create a Better Future

Collaborative Development for Promoting Accessibility to Healthcare /77

Giving Back to Society and Fulfilling Corporate Responsibility /80

# Collaborative Development for Promoting Accessibility to Healthcare

## Expanding Product Coverage and Geographic Reach

While deepening its presence in the domestic market, the Company actively broadens its international perspective, expanding its overseas operations to enhance global health and well-being. The Company signed a licensing and technology transfer agreement for the Dual-Carrier 13-Valent Pneumococcal Polysaccharide Conjugate Vaccine with its partner in Indonesia, and has already begun the technical transfer work, including the vaccine's verification and repackaging. This represents a key aspect of the Company's internationalization strategy, highlighting the important steps it has taken in the global health sector.

Currently, the Company has reached cooperation agreements with partners in countries such as Indonesia, Pakistan, Bangladesh, Colombia, Egypt, and India for the registration, promotion, commercialization, and technology transfer of products including the 13-Valent Pneumococcal Polysaccharide Conjugate Vaccine, 23-Valent Pneumococcal Polysaccharide Vaccine, Inactivated Poliomyelitis Vaccine, acellular DTaP-Hib Combined Vaccine (quadruple vaccine), and other products in overseas markets. Together, we are building a health barrier.

# Enhancing Public Health Capacity

BioKangtai continues to promote vaccine awareness and donation programs. Through various forms of health education activities, the Company aims to educate the public on vaccine knowledge and the importance of vaccination, thereby raising public health awareness. At the same time, the Company actively donates vaccines to regions in need, contributing to the balanced development of healthcare resources.

## Conducting Health Education

BioKangtai, in collaboration with the Chinese Preventive Medicine Association, has established a leading domestic vaccine science popularization base with a clear theme and authoritative expertise. This initiative integrates vaccine education resources, leverages professional advantages, promotes academic exchanges, and disseminates vaccine technology and knowledge to deepen the public's scientific understanding of vaccines, ensuring the healthy development of China's immunization program. In addition, on global health days such as World Immunization Week, World Pneumonia Day, and World Cancer Day, the Company actively undertakes the responsibility of spreading health knowledge. Utilizing the advantages of new media platforms, the Company publishes educational articles on public platforms, presenting complex health knowledge in a simple, easy-to-understand way through engaging text and images. Furthermore, the Company produces a series of animated videos, Kangkang's Adventure, which cleverly incorporate health knowledge into entertaining stories, using a fun and educational approach to contribute to the protection of public health.

## Vaccine Donation

Vaccination is the most economical and effective measure for the prevention and control of infectious diseases. Upholding the corporate purpose of "produce the best vaccines to benefit mankind", the Company remains dedicated to the research, development, and production of high-quality vaccines, contributing to global immunization efforts. To date, the Company has received marketing approval or emergency use authorization for 11 products. Among them, more than 1 billion doses of the hepatitis B vaccine alone have been produced and sold, protecting over 400 million people from hepatitis B virus infection. While ensuring steady growth in its core business, the Company also leverages its industrial strengths to donate vaccines and support the development of public health. During the reporting period, the Company donated hepatitis B vaccines (*Saccharomyces cerevisiae*) to Guangdong, Hainan, Anhui, Shandong, and Guizhou provinces; 13-Valent Pneumococcal Polysaccharide Conjugate Vaccines to Guangdong, Hunan, Hainan, and Jiangxi provinces; 23-Valent Pneumococcal Polysaccharide Vaccines to Jiangxi and Sichuan provinces; and DTaP-Hib Combined Vaccines to Hainan Province, supporting the immunization of relevant populations.

### Signing of Technology Transfer Agreement for 13-Valent Pneumococcal Polysaccharide Conjugate Vaccine and DTaP-Hib-sIPV Pentavalent Vaccine with Egyptian Vaccine Manufacturer

In November 2024, the launch meeting of the Egyptian Vaccine Manufacturers Alliance (EVMA) was successfully held in Cairo. During the meeting, BioKangtai, in collaboration with Egypt's Genvax company, signed a technology transfer agreement for the 13-Valent Pneumococcal Polysaccharide Conjugate Vaccine and the DTaP-Hib-sIPV pentavalent vaccine. This collaboration aims to promote the technology transfer of the "dual-vector" 13-valent pneumococcal vaccine and pentavalent vaccine, independently developed by BioMinhai, to Egypt. The initiative will contribute to Egypt's local vaccine production capacity and further empower the construction of the African vaccine industry chain, fostering regional collaborative development and benefiting the health of more people.



Signing of Agreement with the Egyptian Vaccine Manufacturer

## Enhancing Product Affordability

BioKangtai remains committed to its purpose of “produce the best vaccines to benefit mankind” and strictly adheres to the relevant provisions of the Vaccine Administration Law of the People’s Republic of China. While fully considering production costs—including raw and auxiliary materials, labor, logistics, and R&D—alongside current market conditions, the Company sets vaccine prices in a scientific and reasonable manner. Through these efforts, BioKangtai strives to provide the public with reasonably priced vaccines, ensuring broad access to safe, effective, and high-quality products at affordable prices.

The Company’s product portfolio includes both National Immunization Program (NIP) vaccines and non-NIP vaccines. NIP vaccines are centrally procured through public bidding or unified negotiation organized by the National Health Commission in conjunction with the Ministry of Finance and other relevant departments. The resulting bid-winning or negotiated prices are publicly announced, and provinces, autonomous regions, and municipalities directly under the central government implement unified procurement based on these prices. For other local immunization program vaccines that fall outside the national scope, procurement is carried out through local centralized bidding or negotiation, with bid prices similarly published and procurement organized at the local level. For non-NIP vaccines, procurement is conducted by provincial-level public resource trading platforms. After a vaccine is granted provincial-level market access through bidding, individual districts and counties place orders via the respective provincial platforms. The Company then signs contracts with each district or county and delivers the vaccine products to local disease prevention and control agencies or similar institutions.

In developing countries, the Company formulates regionally appropriate pricing strategies based on local policies and actual conditions. In certain areas where vaccines are included in national immunization schedules, the Company takes international procurement prices into account when setting local prices. This approach helps ensure the accessibility and affordability of vaccines, contributing to improved population immunity and better meeting the public health needs of local communities.



## Giving Back to Society and Fulfilling Corporate Responsibility

The Company actively participates in public welfare initiatives and has established the External Donation Management Policy to standardize its donation practices, strengthen oversight of donation-related activities, and better fulfill its corporate social responsibilities. This framework also supports comprehensive and effective promotion of the Company’s brand and corporate image. Since 2022, BioKangtai has donated more than RMB 100 million in cash and goods to various sectors of society, including underprivileged regions, Red Cross organizations at all levels, and research institutions. These contributions have played a significant role in strengthening public immunization efforts, supporting health-care development, and advancing rural revitalization initiatives.

### Supporting Education

The Company contributes to the development of education by establishing scholarships at universities. In November 2021, BioKangtai donated RMB 500,000 to Huizhou University (to be distributed over five years) to support the establishment of the “BioKangtai” Student Aid and Teaching Excellence Fund. During the reporting period, the Company donated RMB 100,000 to Huizhou University under this initiative.

### Contributing to Rural Revitalization

In response to the national call for rural revitalization, the Company supports poverty alleviation and rural development through charitable donations and related initiatives, aiming to improve living conditions in underdeveloped regions. During the reporting period, the Company donated RMB 1 million to the Ji’an Red Cross Foundation, designated for supporting the red tourism and cultural initiatives of Jinggangshan through Ji’an Xinrong Culture and Film Co., Ltd. Additionally, the Company donated RMB 900,000 to Shenzhen Guangming District People’s Hospital to support its medical assistance programs, which aim to improve the health conditions of impoverished patients and alleviate the burden on their families.

### Supporting the Healthcare Sector

While pursuing its own development, BioKangtai actively supports medical research and the cultivation of talent in public health and health sciences. The Company collaborates with foundations, universities, and research institutes to create shared value for the industry and society.

In 2024, BioKangtai plans to donate RMB 10.366 million (to be distributed over three years) to the China Foundation for Hepatitis Prevention and Control to support its “Protection Program for Family Members of Hepatitis B Carriers”, contributing to hepatitis B prevention and control efforts.

# Future Outlook

## Driving Sustainable Development through Technological Innovation and Building a High-Quality Vaccine Portfolio

The Company will continue to increase R&D investment and enhance its independent innovation capabilities. Focusing on research and development in novel vaccines, multivalent combination vaccines, and innovative vaccines, the Company aims to promote the sustainable innovation of its vaccine products. By establishing a product pipeline that spans the entire lifecycle, the Company is committed to addressing global public health needs, improving vaccine accessibility, and contributing to the well-being of people worldwide.

## Accelerating Internationalization and Promoting Global Health Equity

The Company is actively advancing its internationalization strategy. Leveraging its robust portfolio of commercialized and pipeline products, along with world-class expertise in R&D, quality control systems, and industrialization manufacture, it is expediting access to overseas markets and progressing toward WHO prequalification (PQ). The Company is focused on expanding its presence in Southeast Asia, South Asia, Africa, the Middle East, Latin America, and other Belt and Road regions to promote equitable access to vaccines globally. Additionally, the Company is strengthening partnerships with leading global vaccine enterprises to foster the high-quality development of the global vaccine industry and contribute to international health security.

## Deepening Market Presence and Enhancing Brand Social Influence

Guided by public health needs, the Company will further optimize its market and sales network to improve the market coverage and penetration of its core products. Through brand building, science communication, and digital promotion, the Company aims to raise public awareness of vaccines, increase vaccination rates, and support disease prevention efforts, thereby continuously enhancing the social value of its brand.

## Building an Intelligent Operations System to Improve Resource Utilization Efficiency

The Company will continue to advance its intelligent R&D system, accelerating the development of novel vaccines and leveraging technological innovation to shorten R&D cycles and reduce resource consumption. Smart manufacturing will be employed to optimize production processes, enhance efficiency, and improve quality management. Supported by a digital management system, the Company will utilize big data to analyze market demand, enabling data-driven decisions for precise supply chain management, optimized inventory allocation, and reduced resource waste and operational risks. By implementing end-to-end intelligent operations, the Company will boost overall efficiency and promote sustainable, green development in the industry.

## Upholding Compliance and Practicing ESG for Sustainable Development

The Company remains committed to the core principle of “quality first, compliant operations”, strictly adhering to domestic and international Good Manufacturing Practices (GMP) for vaccines and reinforcing a comprehensive quality management system. Actively fulfilling its social responsibilities, the Company strengthens ESG management by promoting green manufacturing, energy conservation, emissions reduction, and optimized supply chain management to reduce its carbon footprint and support the development of a low-carbon economy. Dedicated to building a sustainable business model, the Company strives to safeguard global public health while creating long-term social value and achieving balanced development across economic, environmental, and social dimensions.

# Appendix

## ESG Performance Overview

### Economic Performance

| Indicator                | Unit         | 2024      |
|--------------------------|--------------|-----------|
| Operating Income         | Million Yuan | 2,651.72  |
| Net Profit               | Million Yuan | 201.55    |
| Total Assets             | Million Yuan | 14,563.71 |
| Shareholders' Equity     | Million Yuan | 9,661.03  |
| Various Taxes and Fees   | Million Yuan | 122.50    |
| Basic Earnings per Share | RMB          | 0.18      |

### Social Performance

| Indicator                                     | Unit   | 2024  |
|---|--------|-------|
| Protection of Employees' Rights and Interests |        |       |
| Percentage of Contract Workers                | %      | 100   |
| Social Insurance Coverage Rate                | %      | 100   |
| Per Capita Paid Annual Vacation Days          | Days   | 6     |
| Employee Diversity and Equal Opportunity      |        |       |
| Total Number of Employees                     | Person | 1,913 |
| Number of Employees with Disabilities         | Person | 18    |
| Number of Employees of Minority Nationalities | Person | 73    |
| Number of Employees (by Gender)               |        |       |
| Female  | Person | 721   |
| Male  | Person | 1,192 |
| Number of Employees (by Age)                  |        |       |
| > 50 years old                                | Person | 90    |
| 30 to 50 years old                            | Person | 1,160 |
| < 30 years old                                | Person | 663   |

| Indicato   | Unit         | 2024    |
|--|--------------|---------|
| <b>Number of Employees (by Academic Qualification)</b>                     |              |         |
| Doctoral Degree  | Person       | 12      |
| Master's Degree  | Person       | 204     |
| Bachelor's Degree  | Person       | 1,060   |
| College Degree or Below  | Person       | 637     |
| <b>Protection of the Rights and Interests of Female Employees</b>          |              |         |
| Proportion of Female Managers  | %            | 29.41   |
| Number of Employees on Maternity Leave                                     | Person       | 50      |
| Return Rate from Maternity Leave   | %            | 100     |
| Number of Employees Who Took Parental Leave                                | Person       | 130     |
| Return Rate from Parental Leave  | %            | 100     |
| <b>Employee Training</b>   |              |         |
| Investment in Employee Training  | Million Yuan | 1.0709  |
| <b>Employee Development</b>  |              |         |
| Number of Employees Having Successfully Transitioned or Applied Internally | Person       | 387     |
| Proportion of Internal Transfers or Applications by Employees              | %            | 18.42   |
| <b>R&amp;D and Innovation</b>  |              |         |
| Investment in R&D  | Million Yuan | 569.22  |
| Percentage of R&D Investment in Operating Income                           | %            | 21.47   |
| Total R&D Team Members   | Person       | 362     |
| Proportion of R&D Personnel to Total Employees                             | %            | 18.92   |
| <b>Product Responsibility</b>  |              |         |
| Number of Quality Trainings Conducted                                      | Times        | 7,936   |
| Number of Quality Training   | Person       | 150,382 |
| Total Hours of Quality Training  | Hours        | 11,536  |
| Product Recall   | case         | 0       |
| <b>Community Investment</b>  |              |         |
| Community Public Welfare Investment  | Million Yuan | 8.4973  |
| Including: Medical and Health Field  | Million Yuan | 4.3973  |
| Including: Education Assistance  | Million Yuan | 2.20    |
| Including: Charitable Donations  | Million Yuan | 1.90    |

## Environmental Performance

| Indicato   | Unit                            | 2024         |
|--|---------------------------------|--------------|
| <b>Environmental Compliance Management</b>                               |                                 |              |
| Environmental Investment   | Million Yuan                    | 3.8388       |
| Number of Environmental Training Sessions Conducted                      | Times                           | 22           |
| Number of Penalties for Violations of Environmental Laws and Regulations | Case                            | 0            |
| <b>Energy Utilization</b>  |                                 |              |
| Total Purchased Electricity  | kWh                             | 96,606,866   |
| Total Natural Gas Consumption  | 10,000 m <sup>3</sup>           | 889.86       |
| Total Heat Consumption   | GJ                              | 227,379.62   |
| Diesel Consumption   | ton                             | 124.42       |
| Gasoline Consumption   | ton                             | 37.54        |
| <b>Greenhouse Gas (GHG) Emissions</b>                                    |                                 |              |
| Total GHG Emissions  | tCO <sub>2</sub> e              | 106,057.84   |
| Scope 1 Greenhouse Gas Emissions   | tCO <sub>2</sub> e              | 19,829.65    |
| Scope 2 Greenhouse Gas Emissions   | tCO <sub>2</sub> e              | 86,228.19    |
| Greenhouse Gas Emissions per Unit Revenue                                | tCO <sub>2</sub> e /10,000 yuan | 0.40         |
| <b>Water Resource Utilization</b>  |                                 |              |
| Water Consumption (Municipal)  | m <sup>3</sup>                  | 1,297,970    |
| Water Consumption per Unit Revenue                                       | Cubic meters/10,000 Yuan        | 4.89         |
| <b>Emission Managements</b>  |                                 |              |
| Total Waste Gas Emissions  | m <sup>3</sup>                  | 251,816,447  |
| Total Volatile Organic Compounds   | ton                             | 0.52         |
| Waste Gas Emissions per Unit Revenue                                     | Cubic meters/10,000 Yuan        | 949.63       |
| Total Industrial Wastewater Discharge                                    | m <sup>3</sup>                  | 1,075,107.08 |
| Ammonia Nitrogen Emissions   | ton                             | 3.05         |
| Chemical Oxygen Demand (COD)   | ton                             | 27.24        |
| Total Nitrogen   | ton                             | 0.19         |
| Total Phosphorus   | ton                             | 0.04         |
| Industrial Wastewater Discharge per Unit Revenue                         | Cubic meters/10,000 Yuan        | 4.05         |

| Indicato                                    | Unit           | 2024   |
|---|----------------|--------|
| <b>Emission Management</b>                  |                |        |
| Total Hazardous Waste Generated             | ton            | 231.63 |
| Hazardous Waste Generation per Unit Revenue | kg/10,000 yuan | 0.87   |
| Total General Waste Generated               | ton            | 142.79 |
| General Waste Generation per Unit Revenue   | kg/10,000 yuan | 0.54   |

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