Chongqing Zhifei Biological Products Co., Ltd.

2024

Interim Business Performance

Chongqing Zhifei Biological Products Co., Ltd.

Board of Directors

August 2024

Important Notes

The main content and data of this report are from the 2024 Interim report of Chongqing Zhifei Biological Products Co., Ltd. In case of any discrepancy between interpretations of the text, the Chinese version shall prevail.

I. Overview of Principal Business

(I) Company profile

Zhifei is an international, full-industry chain high-tech bio-pharmaceutical enterprise integrating R&D, production, sales, distribution, import and export of vaccines and biological products.

Since its inception in 2002, the Company has always adhered to its business principle of "prioritizing social benefits over corporate profits" and implemented the development model featuring "technology and market" drivers. Facing the needs of people's life and health, the Company has persisted in innovative research and development, deepen market promotion, constantly improved the "prevention and treatment of disease" business layout, and protected human health with high-quality services and innovative products.

In the first half of 2024, there was no material change in the principal business of the Company. Beijing Zhifei Lvzhu Biopharmaceutical Co., Ltd. ("Zhifei Lvzhu") and Anhui Zhifei Longcom Biopharmaceutical Co., Ltd. ("Zhifei Longcom") renewed their efforts to introduce new products against bacteria, viruses and tuberculosis. The parent company of Zhifei, as the main promoter, dedicated to diversifying vaccine products and providing more convenient and considerate services. Taking Zhifei Airport as the import and export channel, the Company also provides warehousing, customs clearance record, and batch release services for imported vaccines. In addition, the Company incubates and cultivates promising biotechnology and products through the Zhirui investment platform by equity investment.

(II) Major products and indication

As of the disclosure date of this report, a total of thirteen products had been launched, of which one product got conditional approval. The Company offers a diverse range of products, including vaccine products for preventing infectious diseases such as influenza, cervical cancer, pneumonia, rotavirus, herpes zoster and drugs for the diagnosis, prevention and treatment of Tuberculosis, to the

public including groups of infants, teenagers and adults. It effectively provides product support for the prevention and control of infectious diseases, and provides the nation with diversified options for disease protection. Details are as follows:

No.	Common Name	Trade Name	Function and Use / Indication
1	Group $ACYW_{135}$ Meningococcal Polysaccharide Vaccine	Menwayc	Used to prevent the meningococcal meningitis caused by $ACYW_{135}$ meningococcal polysaccharide.
2	Meningococcal Group A and C Conjugate Vaccine	Mening A Con	Used to prevent infectious diseases caused by meningococcal Group A and C, such as cerebrospinal meningitis and pneumonia.
3	Haemophilus Influenzae Type b Conjugate Vaccine	Xifeibei	Used to prevent invasive infections caused by Haemophilus influenzae Type b (including meningitis, pneumonia, septicemia, cellulitis, arthritis, epiglottitis, etc.).
4	Group A and Group C Meningococcal Polysaccharide Vaccine	Mengnake	prevent epidemic cerebrospinal meningitis caused by Neisseria meningitidis group A and C
5	Recombinant Novel Coronavirus Vaccine (CHO Cell)	Zifivax™	Used to prevent diseases caused by Covid-19.
6	Recombinant Mycobacterium Tuberculosis Fusion Protein (EC)	Ekear	Used to diagnose mycobacterium tuberculosis infection, and the results of the subcutaneous test are not affected by the BCG vaccine and can be used for clinical diagnosis of tuberculosis.
7	Mycobacterium Vaccae for Injection	Vaccae	Used to prevent tuberculosis in the latent groups of infected people with mycobacterium tuberculosis; also used as a drug combination for the adjuvant tuberculosis chemotherapy.
8	Pneumovax 23 - Pneumococcal Vaccine, Polyvalent	Pneumovax	Used to prevent pneumococcal disease caused by 23 serotypes contained in this product (serotypes 1, 2, 3, 4, 5, 6B, 7F, 8, 9N, 9V, 10A, 11A, 12F, 14, 15B, 17F, 18C, 19A, 19F, 20, 22F, 23F, and 33F).

9	Human Papillomavirus Quadrivalent (types 6, 11, 16, 18) Recombinant Vaccine	Gardasil	Used to prevent the following diseases caused by high-risk HPV16/18: cervical cancer, grade 2 and grade 3 cervical intraepithelial neoplasis (CIN2/3) and adenocarcinoma in situ, and grade 1 cervical intraepithelial neoplasis (CIN1).
10	Human Papillomavirus 9-valent Vaccine, Recombinant	Gardasil 9	Used to prevent the following diseases caused by HPV type contained in this product: cervical cancer caused by type HPV16, 18, 31, 33, 45, 52 and 58; precancerous lesions caused by HPV6, 11, 16, 18, 31, 33, 45, 52 and 58: cervical intraepithelial neoplasis (CIN2/3), cervical adenocarcinoma in situ (AIS), and cervical intraepithelial neoplasis (CIN1); persistent infections caused by type HPV6, 11, 16, 18, 31, 33, 45, 52 and 58.
11	Reassortant Rotavirus Vaccine, Live, Oral, Pentavalent (Vero Cell)	Rotateq	Used to prevent the rotavirus gastroenteritis in infants caused by serum-type G1, G2, G3, G4 and G9.
12	Pneumovax 23 - Pneumococcal Vaccine, Polyvalent	Pneumovax	Used to prevent the pneumococcal disease in the form of the capsulate bacteris contained in this vaccine.
13	Hepatitis A Vaccine (Human Diploid Cell), Inactivated	VAQTA	Used to prevent diseases caused by the hepatitis A virus.
14	Recombinant Zoster Vaccine (CHO cell)	Shingrix	Used to prevent herpes zoster.

(III) Main business model

In implementing the development model featuring "technology & market" drivers, the Company has formed a virtuous cycle where R&D and marketing promote each other to fast-track the entire process from R&D to the realization of market value. The Company has long been guided by the health needs of the people, closely follows the cutting-edge trends of biopharmaceutical technology, increased investment in R&D. This has also injected strong impetus into corporate growth.

The Company adheres to its innovation strategy of "putting independent R&D at the core, conducting cooperative R&D as a backup, engaging in investment and incubation as a supplement." The Company continuously improves its self-development capabilities, integrates resources and continues to increase R&D investment, lays out various development routes of vaccines, and gives full play to the synergistic effect of product matrices. Company collaborates with leading research institutes, universities, and other organizations and sets its sights on investment and incubation of cutting-edge technologies, accelerating the transformation of scientific and technological achievements into quality products that serve people's health needs, accelerating the transformation of innovative technology into social benefits and commercial value.

The Company implements the "production determined by sales" model, which is, the production department organizes production according to the marketing department's sales plan, and formulates a production schedule based on sales while also maintaining an appropriate inventory level. The Company strictly complies with the requirements of the Drug Administration Law of the People's Republic of China (hereinafter referred to as the "Drug Administration Law"), the Vaccine Administration Law of the People's Republic of China (hereinafter referred to as the "Vaccine Administration Law"), and the Regulations on the Administration of Vaccine Production and Circulation, among other pertinent laws and regulations. The Company ensures that its production and inspection strictly conforms to the approved production process and quality control standards, and that its entire production process complies with the good manufacturing practice requirements. The quality management department of the Company conducts strict supervision, inspection, and control over product quality. A complete production quality management system is in place to ensure that the entire production process meets ongoing compliance requirements.

The Company employs a direct sales model. The Company's professional marketing team organizes academic meetings and promotional events, carries out activities to popularize vaccination knowledge to bring the Company's vaccines and medicines to end users. The Company's products are produced and sold in strict compliance with the Drug Administration Law, the Vaccine Administration Law, and other relevant laws and regulations, Implements strict

management of the whole life cycle of products. Purchase contracts are signed based on the customer's needs. The products are mainly delivered to the designated locations through the Company's self-built storage and logistics system to complete the process of sales and settlement. According to laws and regulations, vaccines may be marketed and sold in their area of circulation only after they have been produced/imported and issued with batch release certificates by the state. Governments of provinces, autonomous regions, and municipalities can organize purchases of vaccine products via public resource trading platform at the provincial level. The Company distributes vaccine products to the disease prevention and control agencies or points of vaccination units designated by the disease prevention and control agency in accordance with procurement contracts.

II. Analysis of Principal Business

(I) Key accounting data and financial indicators

During the reporting period, key financial indicators are shown below:

Unit：RMB

	2024 H1	2023 H1	Increase/decrease of the current period compared to the previous period
Operating income (RMB)	18,258,441,511.25	24,445,313,338.85	-25.31%
Net profit attributable to shareholders of the Company (RMB)	2,234,319,364.61	4,259,927,399.09	-47.55%
Net profit attributable to shareholders of the Company after deducting non-recurring gains and losses (RMB)	2,230,300,309.18	4,210,966,935.96	-47.04%
Net cash flows from operating activities (RMB)	-307,321,841.89	2,177,048,311.55	-114.12%
Basic earnings per share (RMB/share)	0.9322	1.7750	-47.48%

Diluted earnings per share (RMB/share)	0.9322	1.7750	-47.48%
Weighted average return on equity	6.88%	16.32%	-9.44%
	2024 H1	**2023 H1**	**Increase/decrease of the current period compared to the previous period**
Total assets (RMB)	54,845,126,945.17	50,232,190,314.35	9.18%
Net assets attributable to shareholders of the Company (RMB)	31,525,338,208.20	31,506,080,813.32	0.06%

(II) Products or services accounting for more than 10%

Unit：RMB

	Operating income	**Operating cost**	**Gross profit margin**	**Increase/decrease in operating income as compared with the same period of the previous year**	**Increase/decrease in operating cost as compared with the same period of the previous year**	**Increase/decrease in gross profit margin as compared with the same period of the previous year**
By product or service						
Proprietary product - vaccines and TB products	550,600,482.14	80,470,289.12	85.38%	-35.95%	-29.38%	-1.57%
Agent product - vaccines	17,592,181,385.02	13,239,016,560.42	24.74%	-25.40%	-22.61%	-9.91%

(III) Analysis of assets and liabilities

Unit：RMB

	As at the end of the reporting period		**End of the previous year**		**Increase/decrease in proportion**	**Explanations on significant changes**
	Amount	**Proportion of total assets**	**Amount**	**Proportion of total assets**		
Monetary funds	5,586,109,730.20	10.19%	6,340,512,228.61	12.62%	-2.43%	

Accounts receivable	25,471,988,622.99	46.44%	27,058,579,283.73	53.87%	-7.43%	
Inventory	15,653,351,532.38	28.54%	8,986,023,821.17	17.89%	10.65%	Mainly due to the planned purchase of agency products in 2024 H1
Investment properties	221,305.94	0.00%	265,973.36	0.00%	0.00%	
Fixed assets	3,701,659,404.00	6.75%	3,796,404,998.74	7.56%	-0.81%	
Construction in progress	1,370,397,956.54	2.50%	1,287,248,697.25	2.56%	-0.06%	
Right-of-use assets	33,503,938.87	0.06%	37,058,260.96	0.07%	-0.01%	
Short-term borrowings	3,442,090,361.14	6.28%	2,635,483,275.35	5.25%	1.03%	
Contractual liability	5,567,854.59	0.01%	11,306,389.47	0.02%	-0.01%	
Long-term borrowings	379,080,866.29	0.69%	328,080,291.01	0.65%	0.04%	
Lease liabilities	19,078,272.31	0.03%	25,307,401.72	0.05%	-0.02%	

III. MANAGEMENT DISCUSSION AND ANALYSIS

Currently, the biopharmaceutical industry is at a critical juncture in its development. At the policy level, China has successively launched the Guidelines of the General Office of the State Council on Promoting the High-quality Development of Disease Prevention and Control, the Implementation Plan for Full-Chain Support of Innovative Drug Development and other important policies, while the industry is turning to superior innovation, stricter compliance and more sustainable development. Biopharmaceutical companies are on the cusp of a period of opportunity for breakthroughs and upgrades, but upgrading an industry is never plain sailing. Enterprises need to closely align with the direction of policy, while also continuing to consolidate and improve their core competitiveness in keeping with the new situations, new changes and new requirements, in order to better embrace scientific and technological innovations in addition to industry upgrades.

In the first half of 2024, the Company's marketing efforts for certain products in some regions fell short of expectations and sales of some main products decreased YoY, but the market share

remained high while product differentiation provided a clear competitive advantage. At the same time, the recombinant zoster vaccine (CHO cell) newly authorized by the company received its first batch release certificate in March this year and is currently in the early stages of market promotion. The company has developed a promotion strategy that is set to be further implemented, aiming to gradually expand market share and brand influence. This product has vast market potential and significant growth opportunities. During the reporting period, the Company posted RMB 18,258,441,511.25 in operating income, representing a 25.31% year-on-year (YoY) decrease. Net profit attributable to shareholders of the Company reached RMB 2,234,319,364.61, a 47.55% YoY decrease. Net profit attributable to shareholders of the Company after deducting non-recurring gains and losses amounted to RMB 2,230,300,309.18, a 47.04% YoY decrease.

In the second half of the year, the Company management will take the initiative in tackling and overcoming thorny problems, uniting and leading the entire workforce to work towards achieving the business objectives. It will adopt a prudent attitude and roll out forward-looking strategies, while actively responding to changes and challenges. The Company will continue to optimize and adjust its market strategy to better adapt to market trends and customer demand, comprehensively improve the results of its promotional efforts, accelerate independent R&D, step up efforts to turn clinical research into independently developed products and get them registered and approved, and gradually improve the Company's operational structure. It will also enhance communication and cooperation with partners, ensure supply chains run smoothly and balance sales and inventory; strictly forestall operational risks, strengthen the management of accounts receivable and maintain stable operations. Guided by the "Double Action Plan for Quality and Returns" and with the vision to be a "world-class biopharmaceutical enterprise," the Company will strive to enhance its market competitiveness in pursuing sustainable development.

During the reporting period, the main operation of the company is as follows:

1. Accelerating R&D for innovation-driven growth

In implementing the development model featuring "technology & market" drivers, the Company has formed a virtuous cycle where R&D and marketing promote each other. During the reporting period, the Company's R&D investment reached RMB570 million. The number of R&D employees grew to 979. Thanks to the continuous increase in R&D investment and the growing research team, the Company is stoked with abundant energies in consolidating and promoting R&D innovation.

The Company efficiently promotes research pipelines to accelerate innovation. As of the date of disclosure of this report, several projects are making positive progress in terms of R&D: Quadrivalent Recombinant Norovirus Vaccine (Pichia Pastoris) entered a phase-III clinical trial, putting its R&D at the head of the industry; 26-Valent Pneumococcal Conjugate Vaccine entered phase-I/II clinical trials, and if the project makes smooth progress, it will create a synergistic effect with the Company's Pneumovax 23 - Pneumococcal Vaccine, Polyvalent, which is already on the market, and its 15-Valent Pneumococcal Conjugate Vaccine, currently in phase-III clinical trials. The quadrivalent influenza vaccine (split virion, prefilled) has passed onsite screening and is in the technical review stage, and the Company is applying for approval for marketing. The application for clinical trial of the Quadrivalent Influenza Virus-split Vaccine (ZFA02 adjuvant) was accepted. Currently, no influenza vaccine adjuvant has been officially approved in China. Animal testing, pharmacological and toxicological data is already available for the Company's independently developed Mpox Vaccine. The preclinical studies are basically complete and the Company is ready to submit a new drug clinical trial communication to the NMPA[1]. As of the date of disclosure of this report, the Company has been awarded three invention patents for "a low polymeric tetanus toxin preparation method," "a self-assembling nanoparticles containing EB virus gHgL protein and their preparation methods and applications" and "a self-assembled nanoparticles containing EB virus gHgLgp42 protein and their preparation methods and applications," which have laid a solid foundation for the Company's subsequent research and development in the pipeline. The Company

[1] Drug development is a very complex and rigorous scientific activity, characteristically involving large investments, long cycles and high risk. Product R&D and administrative approval are mainly divided into the following stages: preclinical studies; application for clinical trials; conducting of clinical trials; application for production approval No.; launch and marketing. There is uncertainty surrounding the progress of subsequent clinical trials, the results and launch of the product, and the Company will comply with the information disclosure obligations in a timely manner in line with the progress of the R&D.

independently developed a quadrivalent influenza vaccine, quadrivalent meningococcal conjugate vaccine, 15-valent pneumonia vaccine and other products are expected to go on the market in the next few years. The Company's independent product development continues to accelerate, helping it create greater social and economic benefits.

2. Optimize the Market Network and Exploit Promotional Strengths

In exploiting market potentials, the Company features its refined and precise management of markets. The Company also focuses on introducing new talents and refines talent cultivation and assessment mechanisms. The Company improves the capabilities of integrating and flexibly dealing with information on end-users and market trends. During the reporting period, the marketing team actively launched nationwide promotional activities capitalizing on the advantages of the network, scale, and professionalism. Continued, in-depth promotion meant that the Company's outstanding services and its impressive products gained wide recognition.As of the end of the reporting period, sales staff reached 4,749, a 39.51% YoY increase. The Company has adjusted its market team structure and continued to strengthen the introduction of talent, improve the talent training and evaluation mechanisms and optimize the management model and incentive systems in the face of the new environment and new challenges, in order to ensure the team's organizational effectiveness in the rapid expansion and provide more professional and efficient services for customers.

Despite pressure and challenges, the Company continued to strengthen its product marketing, consolidate collaborative relations with partners, and excel in the work of manufacturing and supplying vaccines, offering quality products and multi-faceted services to the public. The current product lineup has a distinct competitive advantage and continues to lead in market share. The Company and its partners remain vigilant to changes in the market and have established a suitable negotiation mechanism to control the Company's operational risks due to market changes.

During the reporting period, the Company cooperated closely with MSD to ensure the production and supply of 9-valent HPV vaccine and other products. In January of this year, MSD announced that the two dose (0,6–12 months) procedure for the 9-valent human papillomavirus

vaccine (Saccharomyces cerevisiae) for females aged 9–14 years has been approved by the NMPA. This approval means that, in addition to the previous three doses administered between 9 and 45 years of age, a second dose of GARDASIL 9 will be administered between 9 and 14 years of age to provide more females of the relevant ages with more affordable and convenient protection against cervical cancer and cervical lesions associated with HPV infection. The Company and MSD constantly optimize their advertising and promotion strategies in light of market changes to ensure that product information can be effectively communicated to the target consumer population. Through a variety of promotion methods, we continue to improve vaccination awareness and willingness of the appropriate age groups and strengthen their trust and recognition of GARDASIL, ROTATEQ and other products.

During the reporting period, the company partnered with GSK to promote the recombinant zoster vaccine (CHO cell). Since January of this year, the company has been consistently advancing the import, batch release, market access, and promotion & sales of the product. To date, the recombinant zoster vaccine (CHO cell) has reached over 20,000 points of vaccination nationwide, with significant improvements in both coverage breadth and depth. Separately, the company is actively collaborating with GSK to enhance public awareness of the dangers of shingles and gradually increasing public understanding of the disease.

During the reporting period, the Company paid close attention to the national undertakings of tuberculosis (TB) prevention and treatment. Practical actions were taken in response to the slogan of "Yes! We can end TB!" (which was the theme of World TB Day 2023), thus contributing to the building of national non-TB community and the goal of the termination of global TB prevalence. As the strategy of a healthy China continues to make progress, along with the coordinated implementation of integrated medical and preventive measures for prevention and control of tuberculosis, tuberculosis preventive and treatment clinics have been set up in numerous locations. The Company's independently developed products, Vaccae and EC, have been included in the Guidelines for Preventive Treatment of Tuberculosis in China, and Vaccae is the only biological product in the guide recommended for use in the immunoprophylactic treatment program.

Meanwhile, EC was included in the Catalog of Medicines Covered by Medical Insurance across the Country, enabling more people to benefit from the product. The vulnerable groups can be more easily screened for Mycobacterium tuberculosis infection, and the Company will demonstrate the synergy of its anti-tuberculosis product matrix.

During the reporting period, the Company's vaccines were made available for sale only after they had obtained a national batch release and approval certificate in strict compliance with applicable laws and regulations. The details of batch releases of Company's vaccines during the reporting period are presented as below:

(1)Proprietary product

Manufacturer	Product Name	Number of Released and Approved Products in H1 2024 (Dose)	Number of Released and Approved Products in H1 2023 (Dose)	Growth Rate (%)
Zhifei Lvzhu	$ACYW_{135}$ polysaccharide	1,209,921	3,396,143	-64.37
	AC conjugate vaccine	1,028,583	0	100
	Hib vaccine	2,060,940	449,165	358.84
	AC polysaccharide vaccine	449,165	1,073,622	-58.16
	23-valent pneumonia vaccine	160,057	0	100

(2)Products acting as agent

Manufacturer	Product Name	Number of Released and Approved Products in H1 2024 (Dose)	Number of Released and Approved Products in H1 2023 (Dose)	Growth Rate (%)
MSD	Tetravalent HPV vaccine	465,991	6,266,651	-92.56
	9-valent HPV vaccine	36,550,755	14,678,176	24.48
	Pentavalent rotavirus vaccine	2,254,211	6,596,753	-65.83
	23-valent pneumonia vaccine	845,000	813,857	3.83
	Inactivated hepatitis A vaccine	170,808	311,370	-49.21
GSK	Recombinant Zoster Vaccine	1,606,944	0	100

Note: The Company signed an Exclusive Distribution and Joint Promotion Agreement with GSK in October 2023. The two parties have entered into cooperation on the purchase, supply, distribution and joint promotion of the recombinant zoster vaccine developed and produced by GSK. The agreed years for purchase of the contracted products are 2024 to 2026, three years in total.

3. Ensuring product quality and operational compliance

Since its listing, the Company has always adhered to the principle of "keeping compliance in mind and putting responsibility into action" and continued to build a first-class quality management system based on science and compliance while advancing with the times. In strict compliance with the Vaccine Administration Law, the Drug Administration Law, the Provisions for the Lot Release of Biological Products, and other applicable laws and regulations, the Company adheres to the business principle of "prioritizing social benefits over corporate profits" in its production and operating activities. During the reporting period, the company strictly abides by laws and regulations to ensure the production, storage, and supply of vaccines and other salable products. . The company earnestly implements the requirements of the state on the development of bioengineering and pharmaceutical industry, and gives full play to the advantages of the upstream and downstream key links of the industrial chain. The Company thereby answered people's pressing needs for vaccination.

The Company has developed a sound governance framework and institutional system to ensure that its business activities center around its core business, while fully protecting the legitimate rights and interests of stakeholders such as shareholders, customers, and employees. The Company attaches great importance to compliance operations and sets up a compliance management framework consisting of decision-making, management, and executive levels. The Company has formed a compliance management system covering prevention, monitoring, and punishment. The Company actively responds to the latest national and industry compliance policies, constantly updates and improves its compliance policies, increases the frequency of compliance training, strengthens compliance monitoring to better meet national laws and regulations, pharmaceutical industry norms and the company's business development needs, building a corporate brand of integrity and responsibility.

4. Implementing an internationalization strategy to promote global health

The Company continues to practice development and product launch strategies at an international level, actively develops global partnerships, and promotes international cooperation at a deep level. The company has always adhered to the mission of "Safeguarding human health, by preventing the unseen & treating the ailing", continues to promote product research and development, expand product markets, strengthen innovation cooperation with all parties with technological innovation as a link, , and let excellent products be introduced and go out.

During the reporting period, in order to improve the accessibility and affordability of vaccines, the Company actively carried out the international registration and certification of its own products as well as clinical cooperation. It also focused on strengthening communication and cooperation with international organizations such as the World Health Organization(WHO), the Global Alliance for Vaccines and Immunization (Gavi), and the United Nations Children's Fund (UNICEF) to accelerate the implementation of its internationalization strategy and deep integration with the global bio-industry chain. Going forward, Zhifei will continue to advance its internationalization strategy, align with international R&D, production, and quality standards, enable quality products to benefit people around the world, and contribute more efforts to the cause of global public health as a Chinese company.

IV. Analysis of Core Competitiveness

As a major global vaccine R&D and supplier, the Company is committed to enriching the means of prevention and control of infectious diseases. Relying on scientific and technological innovation, the Company develops its unique core competitiveness by improving market networks, controlling production quality, growing talent teams, and reinforcing its governance structure. This is mainly reflected in the following areas.

(I) Fostering new quality productive forces towards innovation, excellence and the future

Scientific and technological innovation is the core factor of developing new quality productive forces. The Company continuously improves its self-development capabilities and sticks to the path of independent innovation. The Company has built three research bases, namely, Zhifei Lvzhu in

Beijing, Zhifei Longcom in Anhui, and Chongqing Zhirui Biopharmaceutical Industry Park, plus an innovative product incubator. The company has set up a professional R&D team with excellent quality and constructed a comprehensive three-dimensional R&D platform. The number of R&D employees grew to 927. The company has participated in more than 40 major projects such as the "Modern Medical Technology" project of the 863 Plan of the Ministry of Science and Technology and the national major special project of new drug creation, and continues to pursue scientific and technological innovation and continuously strengthen the comprehensive strength of the company.

Relying on Zhifei Lvzhu and Zhifei Longcom, the Company makes steady progress in product R&D, especially in the field of disease prevention. On the back of ZhiRui Biopharmaceutical Industrial Park, the Company designs and creates biological technology and products to better protect human health. With a focus on the cutting edge of vaccine technology, the Innovative Product Incubator in Beijing carries out original technological innovation and tackles major technical problems to underpin technical support for more innovative products.

The Company adheres to its innovation strategy of "putting independent R&D at the core, conducting cooperative R&D as a backup, engaging in investment and incubation as a supplement." The Company sets its sights on investment and incubation of cutting-edge technologies, has nine technology R&D platforms covering various development routes of vaccines. A complete R&D platform strengthens the core capabilities of independent R&D and greases the wheels of the coordinated construction of R&D matrices, ensuring that all R&D programs progress with effectiveness.

R&D Platforms		
Polysaccharide and Polysaccharide Conjugate Technology Platform	Genetic Recombination Technology Platform	Inactivated Technology Platform
Multipathogen and Multivalent Technology Platform	mRNA Technolog y Platform	Novel Adjuvant Technology Platform
Human Diploid Cell Line Technology Platform	Adenovirus Vector Technology Platform	Outer Membrane Vesicle (OMV) Technology Platform

On the basis of the nine technology R&D platforms, the Company has formed a clear structure and layout of its eight product matrices.

Matrices	Programs under development
Meningococcal Vaccine Matrix	Group $ACYW_{135}$meningococcal conjugate vaccine, recombinant group B meningococcal vaccine (colon bacillus), and pentavalent meningococcal conjugate vaccine.
Pneumococcal Vaccine Matrix	15-valent pneumococcal conjugate vaccine, polyvalent and 26-Valent Pneumococcal Conjugate Vaccine.
Enterovirus Vaccine Matrix	S. flexneri and S. sonnei Bivalent Shigella conjugate vaccine against dysentery, inactivated enterovirus type 71 vaccine, quadrivalent recombinant norovirus vaccine (pichia pastoris), bivalent HFMD vaccine, inactivated rotavirus vaccine, and bivalent recombinant rotavirus vaccine (pichia pastoris).
Tuberculosis Product Matrix	Lyophilized recombinant tuberculosis vaccine (AEC/BC02), BCG vaccine for intradermal injection, and purified protein derivative of BCG (BCG-PPD).
Multipathogen Vaccine Matrix	DPT vaccine (component) and DPT-based combination vaccine.
Emerging Infectious Disease Vaccine Matrix	Recombinant MERS virus vaccine and COVID-19 vaccines.
Adult Vaccine Matrix	Influenza virus-split vaccine, quadrivalent influenza virus-split vaccine, lyophilized rabies vaccine for human use (MRC-5 cell), lyophilized rabies vaccine for human use (Vero cell), recombinant zoster vaccine (CHO cell), respiratory syncytial virus (RSV) vaccine, and Lyophilized Rabies Vaccine for Human Use (ZFB-3 Cell), adsorbed tetanus vaccine.
Upgraded Vaccine Matrix	Inactivated Japanese encephalitis vaccine and inactivated varicella-zoster virus vaccine.
Note: The aforesaid matrices do not include all the programs under development, and details of R&D situation are shown in the relevant contents on R&D programs in this report.	

The company is one of the most abundant companies in the domestic vaccine pipeline layout, and has a wide range of multi-level product reserves in research. As of the end of the reporting period, the Company held a sum of 32 independent development programs in pipeline, among which 18 were under clinical trials or application for registration. Further information is given as below：

Projects entering the registration Process

No.	Drug Name	Registration Class	Major Functions	Registration Stage	Progress

No.	Drug Name	Registration Class	Major Functions	Registration Stage	Progress
1	Four-valent Influenza Virus-split Vaccine	Prophylactic biologic products class 3.3	After vaccination, it can stimulate the body to produce anti-influenza virus immunity and is used to prevent influenza caused by the strain of virus.	Registration	Drug registration review and approval
2	Influenza Virus-split Vaccine	Prophylactic biologic products class 15	After vaccination, it can stimulate the body to produce anti-influenza virus immunity and is used to prevent influenza caused by the strain of virus.	Clinical trial	Clinical trial completed
3	Lyophilized Rabies Vaccine for Human Use (MRC-5 Cell)	Prophylactic biologic products class 9	After vaccination, it can stimulate the body to produce anti-rabies virus immunity and is used to prevent rabies.	Clinical trial	Clinical trial completed
4	15-Valent Pneumococcal Conjugate Vaccine	Prophylactic biologic products class 7	After vaccination, it can stimulate the body to produce anti-influenza virus immunity and is used to prevent influenza caused by the strain of virus.	Clinical trial	Phase III clinical trial in progress
5	Lyophilized Rabies Vaccine for Human Use (Vero Cell)）	Prophylactic biologic products class 15	After vaccination, it can stimulate the body to produce anti-rabies virus immunity and is used to prevent rabies.	Clinical trial	Phase III clinical trial in progress
6	S. flexneri and S. sonnei Bivalent Shigella Conjugate Vaccine	Prophylactic biologic products class 1	Used to prevent infectious diseases caused by Shigella.	Clinical trial	Phase III clinical trial in progress
7	$ACYW_{135}$ Meningococcal Conjugate Vaccine	Prophylactic biologic products class 7	Used to prevent infectious diseases caused by meningococcus.	Clinical trial	Phase III clinical trial in progress
8	DPT vaccine (component)	Prophylactic biologic products class 4	Used to prevent diseases caused by pertussis, diphtheria and clostridium tetani.	Clinical trial	Phase III clinical trial in progress
9	Quadrivalent Recombinant Norovirus Vaccine (Pichia Pastoris)	Prophylactic biologic products class 1	After vaccination, it stimulates the body to produce anti-norovirus immunity, which is used to prevent acute gastroenteritis caused by norovirus infection.	Clinical trial	Phase III clinical trial in progress
10	Intestinal Virus Type 71 Inactivated Vaccine	Prophylactic biologic	Used to prevent diseases caused by EV71 infection.	Clinical trial	Phase II clinical trial in progress

No.	Drug Name	Registration Class	Major Functions	Registration Stage	Progress
		products class 1			
11	Lyophilized Recombinant Tuberculosis Vaccine (AEC/BC02)	Prophylactic biologic products class 1	Used to prevent tuberculosis in the latent groups of infected people with mycobacterium tuberculosis	Clinical trial	Phase II clinical trial in progress
12	BCG-PPD	Therapeutic biologic products class 15	Used for clinical ancillary diagnosis of tuberculosis, epidemiological survey of tuberculosis and monitoring of body immune response after BCG vaccination. In combination with an in vivo diagnostic reagent (Recombinant Mycobacterium Tuberculosis Fusion Protein (EC)) for identification purposes, it can be used to identify the groups not infected with tuberculosis that are not vaccinated or are negative after vaccination by BCG, the groups not infected with tuberculosis that are positive after vaccination by BCG, and the groups infected with tuberculosis.	Clinical trial	Phase II clinical trial in progress
13	26-Valent Pneumococcal Conjugate Vaccine	Prophylactic biologic products class 1.4	Used to prevent infectious diseases caused by streptococcus pneumoniae.	Clinical trial	Phase I/II clinical trial in progress
14	BCG	Prophylactic biologic products class 15	After vaccination, it enables the body to generate cellular immune responses. Used to prevent tuberculosis.	Clinical trial	Phase I clinical trial in progress
15	Inactivated Rotavirus Vaccine	Prophylactic biologic products class 1	Used to prevent diarrhea caused by rotavirus.	Clinical trial	Phase I clinical trial in progress
16	Recombinant Group B Meningococcal Vaccine	Prophylactic biologic products class 2.6	Used to prevent infectious diseases caused by meningococcus.	Clinical trial	Phase I clinical trial in preparation
17	Therapeutic BCG Vaccine	Prophylactic biologic products class	Used to treat bladder carcinoma in situ and prevent recurrence, and to prevent recurrence after transurethral resection of bladder papilloma in stage Ta or T1. This	Clinical trial	Phase I clinical trial in preparation

No.	Drug Name	Registration Class	Major Functions	Registration Stage	Progress
		3.4	product is not intended for papilloma beyond T1 stage.		
18	Quadrivalent Influenza Virus-split Vaccine (ZFA02 adjuvant)	Prophylactic biologic products class 1.3	This is used to prevent influenza caused by the particular virus strain.	Clinical Application	Clinical Application

Preclinical Project

No.	Product Name	Progress and Changes in 2024 H1	Expected Progress (2024-2025)	
1	Recombinant Hepatitis B Vaccine (Hansenula Polymorpha)	Preclinical study	Preclinical study	Preclinical study
2	Bivalent HFMD Vaccine	Preclinical study	Preclinical study	Clinical Application
3	Bivalent Recombinant Rotavirus Vaccine (Pichia Pastoris)	Preclinical study	Preclinical study	Preclinical study
4	Inactivated Japanese Encephalitis Vaccine	Preclinical study	Preclinical study	Clinical Application
5	Recombinant Zoster Vaccine (CHO cell)	Preclinical study	Preclinical study	Clinical Application
6	Inactivated Varicella-zoster Virus Vaccine	Preclinical study	Preclinical study	Clinical Application
7	Respiratory Syncytial Virus (RSV) Vaccine	Preclinical study	Preclinical study	Clinical Application
8	Recombinant MERS Virus Vaccine	Preclinical study	Preclinical study	Preclinical study
9	DPT-based Combination Vaccine	Preclinical study	Clinical Application	Clinical Approval
10	Pentavalent Meningococcal Conjugate Vaccine	Preclinical study	Preclinical study	Clinical Application
11	Mpox Vaccine	Preclinical study	Preclinical study	Clinical Approval
12	Lyophilized Rabies Vaccine for Human Use (ZFB-3 Cell)	Preclinical study	Preclinical study	Clinical Approval
13	EBV Vaccine	Preclinical study	Preclinical study	Preclinical study
14	Adsorbed tetanus vaccine	Preclinical study	Preclinical study	Clinical Application

Note: The above disclosed projects under development do not include Covid-19 vaccine candidates.

Keeping a close watch on the trends of infectious diseases, the Company is actively building platforms for cooperation and exchanges between industries, universities, and research institutes to open up channels for the integration of theoretical research and technological innovation in the field of biotechnology and advance its exchanges and collaboration with research institutes.

Its research department has successively published 72 academic papers on The Lancet, the New England Journal of Medicine, and other medical journals since 2019, doing its part in the advancement in medicine. The Company collaborates with over 20 research institutes such as the Institute of Microbiology, Chinese Academy of Sciences (IMCAS) and the National Clinical Research Center for Infectious Diseases to carry out joint clinical research and academic cooperation on innovative vaccines, TB prevention and treatment, and other programs. In January , Zhifei Lvzhu and Shanghai-based Delonix Bioworks Ltd. ("Delonix Bioworks") agreed to fully leverage their upstream and downstream advantages in vaccine development based on the new vaccine development platform of the Zhifei Lvzhu Innovation Incubator and the synthetic biological vaccine technology platform of Delonix Bioworks. The Company constantly improves its innovation ability in open cooperation, gathering momentum for high-quality growth. It cooperates with all parties to overcome the challenges that threaten human life and health.

The Company incubates and cultivates promising biotechnology and products used for disease prevention and treatment through the ZhiRui Investment platform by equity investment to expand the coverage of its health business and to achieve the company's "prevention and treatment of disease" synergistic development. Catering for the needs of the people, Zhirui Investment brings together industry experts and top-tier research teams to achieve R&D and industrialization of cutting-edge biotechnology, with a focus on such fields as tumors, metabolic diseases, cardiovascular diseases, autoimmune diseases, and neurodegenerative diseases, ZhiRui Investment continues.

(II) Adapting to a changing market, enhancing the effectiveness of promotion

The Company implements its development model featuring "technology & market" drivers, and forms a virtuous cycle where R&D and marketing promote each other to fast-track the entire process from R&D to the realization of market value. The Company has set up provincial-level marketing networks to cover 31 provincial-level regions, over 2,600 administrative districts and counties, and over 30,000 primary-level health centers through hierarchical management. The extensive marketing networks make the professional and considerate services of marketing staff accessible to more regions. As such, more people will benefit from the Company's quality vaccines. The Company always has regard to clients' requirements while keeping track of market demands and changes. It continues to improve marketing management to increase the overall efficiency of marketing efforts.

After many years of ameliorating the systems of marketing and services, the Company has built an industry leading market team. Through systematic training and professional guidance, the professional competence and service awareness of the marketing personnel continue to improve. The Company offers professional medical support and actively carries out diversified marketing efforts touting. As of the end of the reporting period, the Company had a large marketing team of 4，749 members. The Company has established a complete client service system, maintains convenient channels for communication, and makes timely responses to clients' inquiries and proposals. The company promotes the introduction of high-quality products into the market and actively serves the Healthy China strategy to create greater social benefits.

(III) Paying attention to quality control for consistent quality

The Company adheres to the core values of "Quality First" and persistently pursues quality products and professional services by improving quality management throughout the lifespan of products. The Company has built a sound quality management system specifying quality-related highlights and responsibilities across different phases such as product R&D, material inspection, manufacturing, procurement, transport, storage, sales, and listing management. In all phases, the

standardized and strict management procedures are put in place to ensure traceability of all recorded operations. This also guarantees its quality management system is sound, stable, and endurable.

The Company is capable of mass production, standardized quality control, and commercial development. The Company possesses industry-leading capacity of industrialization in China, and strives for improved productivity and quality control under international standards. Zhifei Lvzhu and Zhifei Longcom, two major research and production centers of the Company, are equipped with modern factories and devices used for vaccine production, as well as the specialized production staff with a strong sense of responsibility. Meanwhile, the Company seals lasting and stable relationships with reliable suppliers at home and aboard to guarantee the manufacturing and supply of products. Since the first batch of lot releases was approved in 2008, the independently developed products of the Company have all been successfully verified.

(IV) Bringing together talents to drive high-quality growth

The Company's core management has the comprehensive ability to perform its duties, rich management and industry experience, and deep insights into disease prevention and control. The management staff remain stable, professional, and efficient. Fully leveraging their expertise in various professional fields, they formulate growth strategies in a timely and targeted manner based on the Company's status quo, industry development trends, and market needs, leading by example, uniting and leading the team to promote the company to achieve continuous breakthroughs.

The Company always adheres to the business principle of "prioritizing social benefits over corporate profits." Over the past two decades, the Company has cultivated unique corporate culture, in which "Six Firsts, Six Seconds" is considered as its corporate values. The Company's corporate culture plays a pivotal role in attracting, pooling, and retaining talents with shared values. The Company's sustainable development entails adequate staffing under the direction of multi-faceted incentive policies, the sound benefit sharing mechanism, and the stable talent cultivation strategy. As of the end of the reporting period, there were 7365 employees, an increase of 1635 (14.12%)

over 2023 H1. The rich talent reserve lays the cornerstone for the company to achieve high-quality development.

V. Explanation of Other Major Issues

(I) During the reporting period, the cooperation between the Company and MSD proceeded smoothly. The Company actively engaged in the import, promotion and sales of HPV vaccine, pentavalent rotavirus vaccine, etc. The Company and MSD actively responded to the World Health Organization's global strategy to accelerate the elimination of cervical cancer and China's action plan to accelerate the elimination of cervical cancer (2023–2030), continue to improve public knowledge of the disease and promotion of vaccination, improve public awareness of cervical cancer prevention and willingness to be vaccinated, and continuously increase the HPV vaccination rate in China. At the same time, the Company takes the initiative in promoting the HPV vaccine, pentavalent rotavirus vaccine, etc. both on and offline to enhance consumers' understanding and appreciation of GARDASIL, ROTATEQ and other product brands. Pursuant to the Supply, Distribution and Co-Marketing Agreement ["Announcement on Renewal of Supply, Distribution and Co-Marketing Agreement with MSD" (2023–05)], the actual procurement of MSD products for this year will be confirmed in writing by both parties.

(II) During the reporting period, the collaboration between the company and GSK proceeded as planned. Since January of this year, the company has officially begun the promotion and sales of the recombinant zoster vaccine (CHO cell). The company has been actively working to expand the coverage of vaccination points for the product and to raise public awareness of shingles prevention, encouraging more people to get vaccinated to prevent the disease. According to the "Exclusive Distribution and Co-Promotion Agreement" [Announcement on Signing the Exclusive Distribution and Co-Promotion Agreement with GSK (2023-43)], the actual procurement of GSK products for this year will be confirmed in writing by both parties.

(III) Chongqing Huazhi Biopharmaceuticals Co., Ltd. (hereinafter referred to as "Huazhi Biopharma") is an enterprise controlled by Mr. Jiang Rensheng, the actual controller of the

Company, through the in vitro incubation platform Chongqing Weisheng Investment Co., Ltd. It is about to complete the preclinical studies for its independently developed quadrivalent hand, foot and mouth disease vaccine and plans to submit a clinical trial application to the NMPA. To date, Huazhi Biopharma's products are still in the preclinical study stage. Currently no products have been launched on the market and there is no competition within the industry that would constitute a material adverse impact on the Company. In order to avoid potential competition within the industry which could harm the interests of the Company and other shareholders, Mr. Jiang Rensheng is willing to transfer the relevant assets or equity to the Company at a fair and reasonable price when the Company considers it necessary, and the Company has the preferential right to purchase the above business. The products of Huazhi Biopharma have not yet entered the clinical trial stage. There is a high degree of uncertainty regarding the progress of clinical trials, the success rate of clinical trials and the probability of successful marketing of the product. In the future the Company will proceed with the integration and injection of such assets at an appropriate time based on project progress, asset maturity and actual operational needs.

VI. Industrial Situation and Trends

(I) Industry growth, upgrading and expansion driven by national policies

The biopharmaceutical industry is a strategic industry that has a bearing on the national economy, people's wellbeing, economic growth and national security, and is an important foundation for the realization of a healthy China. The scientific and technological strengths of the biopharmaceutical industry, along with its high degree of strategy, mobility and growth, make it an important field for accelerating the formation of new quality productive forces. The year 2024 marks the 75th anniversary of the founding of New China and is a crucial year for the realization of the objectives of the 14th Five-Year Plan. It is also an important year for reform and innovation in the health sector, for strengthening its foundation and its comprehensive upgrading.

China has issued a series of pharmaceutical industry policies and accompanying measures to encourage the healthy development of the pharmaceutical industry, which is driven by innovation

toward high-quality growth. In December 2023, the General Office of the State Council issued the Guidelines on Promoting the High-Quality Development of Disease Prevention and Control, which proposed to integrate the promotion of high-quality development into local economic and social development plans, and urged relevant departments to perform their duties in disease prevention, control, and protection in accordance with law, and promote the high-quality development of the disease control industry. In February 2024, China's National Healthcare Security Administration (NHSA) released the draft version of the Notice on Establishing a Mechanism for the Initial Pricing of Newly Marketed Chemical Drugs to Encourage High-Quality Innovation for comments, to support high-quality innovative drugs to realize "returns consistent with high investment and high risk." During China's two sessions this year, the government work report highlighted the need to foster new growth engines such as biomanufacturing, in an endeavor to modernize the industrial system and develop new quality productive forces at a faster pace. In July 2024, the Resolution of the Central Committee of the Communist Party of China (CPC) on Further Deepening Reform Comprehensively to Advance Chinese Modernization was adopted at the third plenary session of the 20th CPC Central Committee, proposing to deepen the reform of the health system, implement the strategy of prioritizing development in health-related fields, improve the public health system, promote public participation as well as collaboration and integration between hospitals and disease prevention and control institutions and strengthen capabilities for disease monitoring and early warning, risk assessment, epidemiological investigation, emergency response, critical care, and the like. The government has introduced a series of favorable policies to actively promote the coordinated development of medical care, medical insurance and medicine.

The biopharmaceutical industry is at the forefront of science and technology and international economic competition. It not only represents a country's research strengths in the field of life sciences, but is also an important engine for promoting economic and social development. As the most efficient and cost-effective means of preventing and controlling infectious diseases, vaccines play an important role in preventing infection, re-transmission after infection, and severe illness and death. The global bio-pharmaceutical market is booming, driven by the interplay between the

demand for disease prevention and biotechnological innovation, which has led to an upgrading of the vaccine industry.

As biotechnology continues to upgrade iteratively and major innovations are rapidly put into service for real-life applications, China's biopharmaceutical industry now has strong technical strengths, a deep talent pool and a complete innovation industry chain. Multiplexing, polyvalent, innovative vaccines have further stimulated market demand and commercial potential in the field of vaccines, bringing a wider range of innovative products to humans, as well as safer and more effective disease response strategies. China's large population provides a broad base for the development of the vaccine industry and with the continuous development of China's economy and society, structural changes such as urbanization, population aging and the expansion of middle-income groups have stimulated greater health needs. At present, the per capita expenditure on vaccines in China is far lower than in developed countries and the huge potential of China's domestic market is yet to be realized. The introduction of domestically produced, breakthrough vaccines will usher in an era dominated by Chinese vaccine varieties in China's vaccine industry, moving from "domestic substitution" to "international innovation." The industry is set to flourish with greater vitality and better meet the health needs of the public, while enterprises will also gradually realize the development goals of bringing their products, innovations and brands to the global market.

(II) Prevention and protection for the whole cycle of life, rapid development of the adult vaccine market

The Outline of China's 14th Five-Year Plan and Long-Range Objective through the Year 2035 proposes to strategically prioritize development of people's health, comprehensively promote the building of a healthy China, adhere to the principle of prevention over cure and provide the people with all-round health services throughout the lifecycle. April 25 of this year is the 38th National Children's Vaccination Day in China, promoted under the theme of "Act Together, Vaccinate, Safeguard Health Throughout the Lifecycle." It advocates coordinated action by the whole

population, including family members, to proactively vaccinate and increase awareness of self-protection.

Vaccination is one of the most significant achievements with the most extensive impact in China's health endeavors. Since the implementation of the national immunization program, the varieties of vaccines included in the immunization program have continued to increase, contributing to the effective control of a growing number of infectious diseases. Vaccines have played a pivotal role in the ongoing fight against disease in humans. As public understanding and awareness of vaccination has continued to grow, their trust in and support for vaccination has also increased, the rate of vaccination of children in the immunization program has been high and parents' willingness to have their children receive vaccinations has increased.

In recent years, with the introduction of HPV, influenza, herpes zoster and other vaccine products and the progress of health outreach campaigns, the awareness of the need for vaccination from childhood throughout the entire life cycle is gaining ground. Vaccines are not just for children and the immunization of adults is equally important. China has a large elderly population and the population as a whole is aging rapidly. It is expected that by around 2035, the population of elderly persons aged 60 and above will exceed 400 million in China. Focusing on "safeguarding health throughout the lifecycle," vaccine enterprises will continuously raise public awareness of vaccinations and the need for vaccine protection throughout the life cycle, and work to create a situation where the whole of society is involved with and in support of vaccination efforts.

(III) Deepening of industry governance, growing importance of enterprise compliance

The medical field is the main battleground for safeguarding the health of the people and has a direct bearing on those rights and interests in which people have the most direct and real interest, namely, their own health. Strengthening industry discipline in the field of medicine is an important part of promoting the high-quality development of the pharmaceutical industry, and is an important component of improving the construction of the medical governance system. Last year, 10 line ministries including the National Health Commission launched a nationwide centralized

remediation work aimed at corruption in the pharmaceutical sector to advance industry governance. Since the beginning of this year, the Central Committee of the Party and the State Council have issued clear requirements for industry governance. The results of the nationwide centralized remediation of corruption in the pharmaceutical sector need to be continuously consolidated and improved, and the industry discipline still needs to be sustained over a long time to be successful. 14 line ministries including the National Health Commission jointly released the Key Work Points for Correcting Unhealthy Tendency in the Field of Purchase and Sale of Medical Products and Medical Services in 2024.

Higher-level systematic decisions and plans for industry discipline, planning serve as guidelines for localities and departments to continuously advance the anti-corruption fight, improve the long-term mechanism of management of industry discipline and promote all kinds of institutions and personnel in the field of medicine to comply with the law, operate legally, work for the public good and serve the people. They are intended to lead the pharmaceutical industry to healthier, more standardized and more sustainable development, safeguard the high-quality development of the health industry and provide a fairer and more transparent competitive environment. This will help benchmark enterprises in the industry enhance their own technical strength, product quality and service level to succeed in a wider market, improve their overall competitiveness, and achieve high-quality development. With the improvement of the industry ecology, business partners and the public will prefer compliant and trustworthy enterprises and their products, and such enterprises can therefore gain more market opportunities.

VII. Risks and Countermeasures

(I) Policy risk

As one of China's emerging strategic industries, the biopharmaceutical industry receives great attention from government departments at all levels, and the bio-vaccine industry in particular is a strictly regulated industry. However, with the rapid development of the economic society and increasingly stringent regulations, the subsequent policies may bring different changes in and have

an impact on the production, sales and circulation of the Company. Zhifei strictly implemented various systems in accordance with the Vaccine Administration Law and gradually improved its management, with the aim of enhancing its operation efficiency. The Company pays close attention to the changes in policies and make timely adjustments to its business strategies to comply with the applicable regulations and regulatory.

(II) Nonperforming debts

With the increase in sales volumes and the expansion of business operations, sales of agency products and independently developed products continues to grow and the Company's accounts receivable are also growing steadily. The Company attaches great importance to risk control in advance of vaccine sales, follow-up on contract performance during the event, and effective communication after the event, and takes measures such as payment collection assessment and standard agreements to reduce the risk of bad debts.

(III) Talent management risk

As of the end of the reporting period, the Company has a total of 7,365 employees. The constantly growing talent team is the solid foundation for the Company’s business implementation in R&D, production and operation. However, the increasing scale of employment poses certain management risks. The Company strongly advocates the talent selection principle of “prioritizing integrity over capability”, and integrated corporate culture into employee induction training and daily management to ensure team’s stability and code of conduct. At the same time, the company adopts a rich and diverse incentive mechanism to rejuvenate the vitality of the team.

(IV) Risks of public opinion response

With the facilitation of vaccination and the improvement of national awareness of disease prevention, the scope and quantity of vaccination products are steadily increasing, and there is a possibility of adverse reaction risks and thus triggers public opinion risks. Once a public opinion incident occurs, it will have a great impact on the vaccination work and the development of the vaccine industry. With a strong sense of responsibility, the Company keeps a close eye on public

opinion related to it and puts in place mechanisms for responding to and managing such opinion, so as to build a good brand image and sustain its growth.

(V)Risk of hesitation to vaccination

Despite vaccination is the most economic and effective way to prevent infectious diseases, the unwillingness or refusal of vaccination ("hesitation to vaccination") may reverse the progress of vaccination against preventable diseases, and may cause a downturn in sales in the vaccine industry for a certain period of time, thereby affecting the Company's performance. For a long time, the Company has consistently and continuously adhered to standardized operation, continued to invest in the academic promotion of vaccine value, actively participated in the popularization of vaccine knowledge and the cultivation of vaccination notification and demand, and promoted the public's rational awareness of vaccination.