



石四藥集團有限公司  
SSY Group Limited

*(incorporated in the Cayman Islands with limited liability)*  
Stock Code: 2005.HK

# 2023 Interim Results & Roadshow material

Updated on 29 August 2023



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# PART 01

## Business Profile

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## Financial Highlights (1H2023)

| ( HK\$'000 )                      | 1H2023    | 1H2022    | Increase/<br>(Decrease) |
|-----------------------------------|-----------|-----------|-------------------------|
| Revenue                           | 3,333,157 | 3,404,513 | (2.1%)                  |
| Gross Profit                      | 1,944,751 | 1,939,447 | 0.3%                    |
| Gross Profit Margin               | 58.3%     | 57.0%     | 1.3%pt                  |
| EBITDA                            | 993,861   | 919,046   | 8.1%                    |
| EBITDA Margin                     | 29.8%     | 27.0%     | 2.8%pt                  |
| Net Profit                        | 638,611   | 570,056   | 12.0%                   |
| Net Profit Margin                 | 19.2%     | 16.7%     | 2.5%pt                  |
| Earning per share (HK\$)          | 0.2149    | 0.1906    | 12.7%                   |
| Interim Dividend                  | 207,903   | 179,205   | 16.0%                   |
| Interim Dividend per share (HK\$) | 0.07      | 0.06      | 16.7%                   |



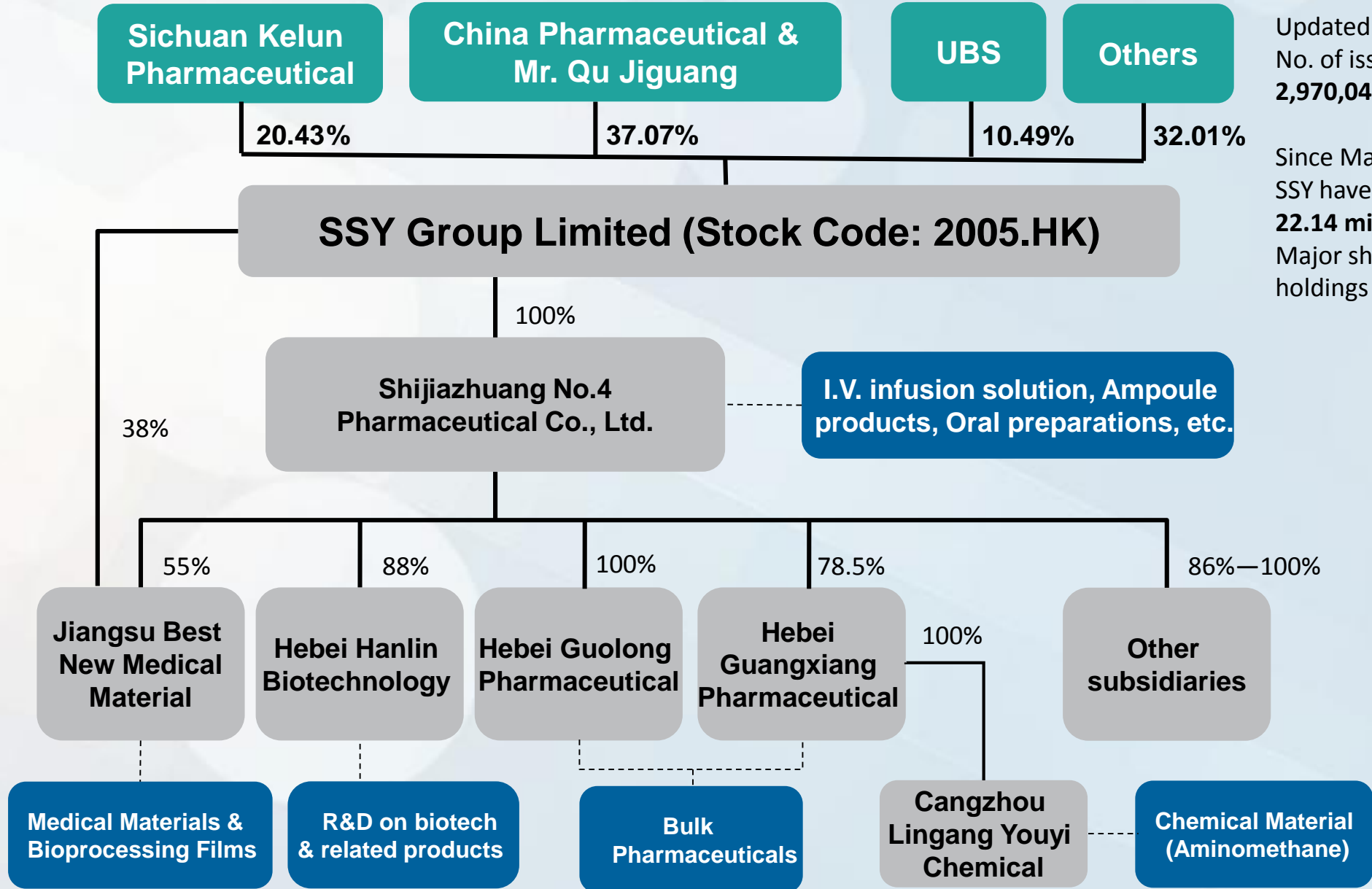
## Financial Highlights (1H2023)

| ( HK\$'000 )                        | 30 June 2023 | 31 December 2022 | Increase/<br>(Decrease) |
|-------------------------------------|--------------|------------------|-------------------------|
| Cash and Cash Equivalent            | 1,789,616    | 1,667,547        | 122,069                 |
| Bank Borrowings                     | 3,379,969    | 3,207,648        | 172,321                 |
| Net Asset Value                     | 6,681,527    | 6,545,824        | 135,703                 |
| Gearing Ratio                       | 20.1%        | 19.9%            | 0.2%pt                  |
| Current Ratio                       | 1.87         | 1.82             | 0.05                    |
| Accounts Receivable Turnover (Day)# | 103          | 110              | (7)                     |
| Inventory Turnover (Day)            | 119          | 104              | 15                      |
| NAV per Share (HK\$)                | 2.25         | 2.20             | 0.05                    |
| Return on Equity                    | 19.1%        | 17.1%            | 2.0%pt                  |

Remarks: # excluding bills receivables



# Shareholding & Group Structure



Updated as at 10 August 2023  
 No. of issued shares :  
**2,970,043,385**

Since March 2022,  
 SSY have repurchased  
**22.14 million** shares  
 Major shareholder increased  
 holdings for **25.63 million** shares



## Revenue Overview (1H2023)

| By Products          | 1H2023             |                    | 1H202              |                    |
|----------------------|--------------------|--------------------|--------------------|--------------------|
|                      | Revenue (HK\$'000) | % of Total Revenue | Revenue (HK\$'000) | % of Total Revenue |
| I.V. Infusion        | 2,069,115          | 62.1%              | 1,833,629          | 53.8%              |
| Ampoule Injections   | 453,398            | 13.6%              | 510,665            | 15.0%              |
| Bulk Pharmaceuticals | 453,626            | 13.6%              | 776,609            | 22.8%              |
| Oral Preparations    | 244,391            | 7.3%               | 145,088            | 4.3%               |
| Medical Materials    | 90,067             | 2.7%               | 90,550             | 2.7%               |
| Other Products       | 22,560             | 0.7%               | 47,972             | 1.4%               |
| <b>Total</b>         | <b>3,333,157</b>   | <b>100%</b>        | <b>3,404,513</b>   | <b>100%</b>        |



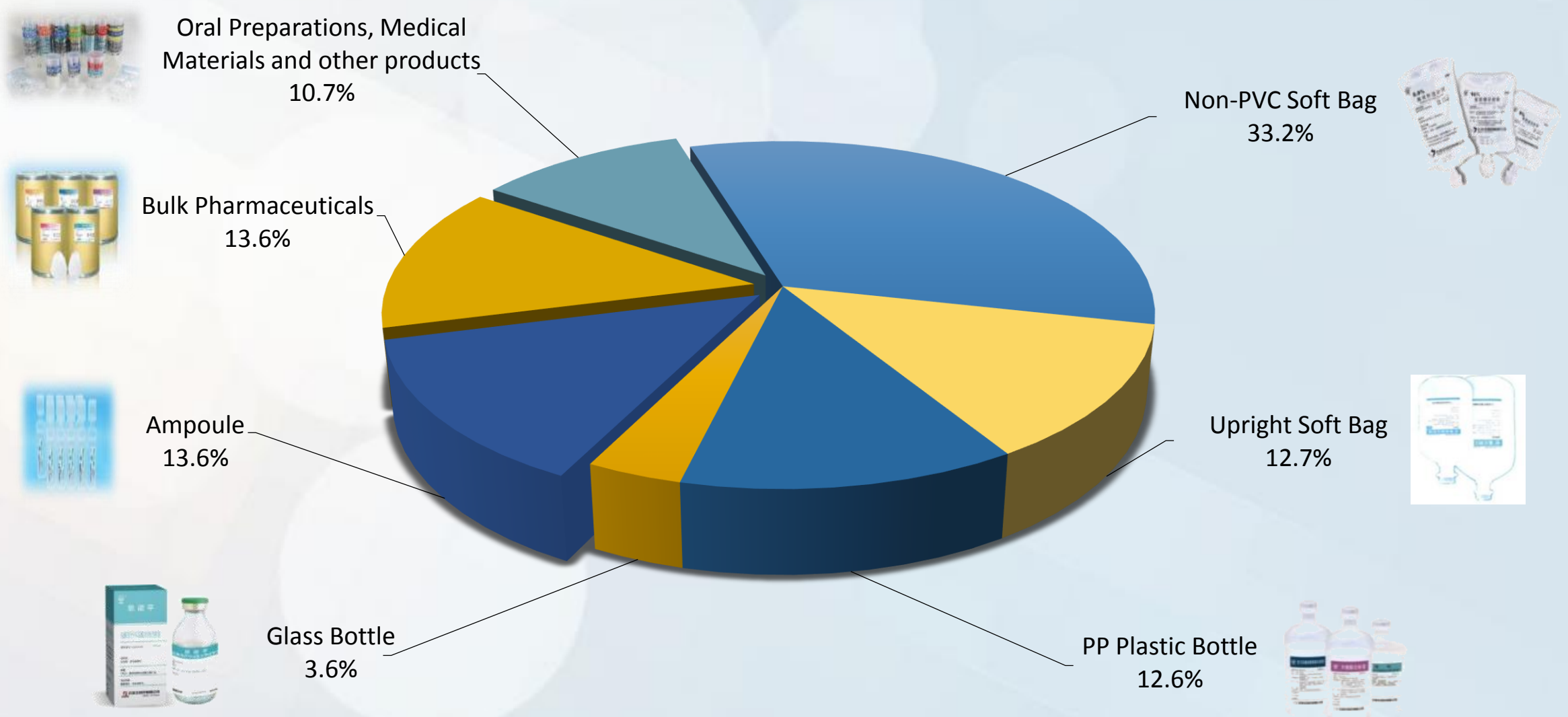


# Revenue Overview (2022FY)

| By Products                          | 2022               |                    | 2021               |                    |
|--------------------------------------|--------------------|--------------------|--------------------|--------------------|
|                                      | Revenue (HK\$'000) | % of Total Revenue | Revenue (HK\$'000) | % of Total Revenue |
| I.V. Infusion                        | 3,510,342          | 54.6%              | 3,304,365          | 61.7%              |
| Ampoule injections                   | 978,707            | 15.2%              | 1,093,615          | 20.4%              |
| Bulk Pharmaceuticals                 | 1,358,949          | 21.1%              | 533,860            | 10.0%              |
| Oral preparations and other products | 413,908            | 6.4%               | 247,746            | 4.6%               |
| Medical Materials                    | 172,119            | 2.7%               | 177,177            | 3.3%               |
| <b>Total</b>                         | <b>6,434,025</b>   | <b>100%</b>        | <b>5,356,763</b>   | <b>100%</b>        |



# Revenue Breakdown by Products (1H2023)



### Sales volume increase, Optimise product mix, New types of products rapid growth

- 👑 In 1H2023, sales volume of infusion solution reached 936 million bottles (bags), representing an increase of 24.1% y-o-y, revenue reached HKD2,069 million, representing an increase of 12.8% y-o-y
- 👑 Production and sales of therapeutic infusion solutions progressed steadily, revenue reached HKD566 million, representing an increase of 24.1% y-o-y, contributed for 27.4% of I.V. sales
- 👑 Sales (in RMB) of key products growth rapidly : Ambroxol Hydrochloride + 232%, Moxifloxacin Hydrochloride +222%, Fluconazole +91%, Ciprofloxacin Lactate +45%, Peritoneal dialysis solution +38%
- 👑 End of epidemic in 2023, hospitalization rate of large hospitals recovers ; medium and small hospitals, clinics and rural market resume infusion
- 👑 For 2023, target sales volume of I.V. infusion no less than 1,900 million bottles (bags)
- 👑 By end of 2023, new production lines of upright soft bag with additional production capacity of 600 million bags annually. By adopting new technologies and facilities, the production lines will turn to be the most advanced model of intelligent manufacturing and digital transformation in the industry, expected to complete construction and start trial production by the end of September 2023



# Revenue Overview - I.V. Infusion (1H2023)

Sales volume of Upright soft bag and PP Plastic bottle increased by 43.0% & 23.6% y-o-y respectively

| By Packaging      | I.V. Infusion – 1H2023 |                 |                                    |              |
|-------------------|------------------------|-----------------|------------------------------------|--------------|
|                   | Revenue (HK\$'000)     | % of IV Revenue | Average Selling Price (ASP) (HK\$) | GP%          |
| Non-PVC Soft Bag  | 1,107,007              | 53.5%           | 3.67                               | 67.0%        |
| Upright Soft Bag  | 419,490                | 20.3%           | 1.70                               | 69.7%        |
| PP Plastic Bottle | 424,088                | 20.5%           | 1.23                               | 48.4%        |
| Glass Bottle      | 118,530                | 5.7%            | 2.73                               | 34.7%        |
| <b>Total</b>      | <b>2,069,115</b>       | <b>100%</b>     | <b>2.21</b>                        | <b>61.9%</b> |



## Revenue Overview - I.V. Infusion (1H2023)

- Proportion of therapeutic infusions (as % of IV revenue) increased by 2.6 %pt
- Various products' volume entered rapid growth period: Ambroxol Hydrochloride and Sodium Chloride (+294%), Moxifloxacin Hydrochloride & Sodium Chloride (+255%), Fluconazole and Sodium Chloride (+96%), Peritoneal dialysis solution (+36%), Metronidazole (+24%)

| By<br>Pharmaceutical<br>Products | I.V. Infusion – 1H2023 |                    |  |              |
|----------------------------------|------------------------|--------------------|--|--------------|
|                                  | Revenue<br>(HK\$'000)  | % of IV<br>Revenue | Average Selling<br>Price (ASP)<br>(HK\$) | GP%          |
| Basic Infusions                  | 1,179,929              | 57.0%              | 1.88                                     | 60.8%        |
| Nutrition Infusions              | 323,291                | 15.6%              | 1.64                                     | 51.0%        |
| Therapeutical Infusions          | 565,895                | 27.4%              | 5.11                                     | 70.3%        |
| <b>Total</b>                     | <b>2,069,115</b>       | <b>100%</b>        | <b>2.21</b>                              | <b>61.9%</b> |



## Revenue Overview - I.V. Infusion (2022FY)

Sales volume of Upright soft bag and PP Plastic bottle increased by 28.1% & 20.1% y-o-y respectively

| By Packaging      | I.V. Infusion – 2022FY |                 |                                    |              |
|-------------------|------------------------|-----------------|------------------------------------|--------------|
|                   | Revenue (HK\$'000)     | % of IV Revenue | Average Selling Price (ASP) (HK\$) | GP%          |
| Non-PVC Soft Bag  | 1,788,791              | 51.0%           | 3.74                               | 62.5%        |
| Upright Soft Bag  | 647,621                | 18.4%           | 1.79                               | 67.6%        |
| PP Plastic Bottle | 839,750                | 23.9%           | 1.30                               | 47.9%        |
| Glass Bottle      | 234,180                | 6.7%            | 2.65                               | 34.6%        |
| <b>Total</b>      | <b>3,510,342</b>       | <b>100%</b>     | <b>2.22</b>                        | <b>58.1%</b> |



# Revenue Overview - I.V. Infusion (2022FY)

- Proportion of therapeutic infusions increased by 4.4 %pt
- Various products' volume entered rapid growth period: Peritoneal Dialysis Solution (+77%), Ambroxol Hydrochloride (+169%), Moxifloxacin Hydrochloride (+314%), Ciprofloxacin Lactate (+110%)

| By<br>Pharmaceutical<br>Products | I.V. Infusion – 2022 FY |                    |  |              |
|----------------------------------|-------------------------|--------------------|--|--------------|
|                                  | Revenue<br>(HK\$'000)   | % of IV<br>Revenue | Average Selling<br>Price (ASP)<br>(HK\$) | GP%          |
| Basic Infusions                  | 2,075,133               | 59.1%              | 1.99                                     | 58.7%        |
| Nutrition Infusions              | 535,621                 | 15.3%              | 1.72                                     | 48.3%        |
| Therapeutical Infusions          | 899,588                 | 25.6%              | 4.02                                     | 62.5%        |
| <b>Total</b>                     | <b>3,510,342</b>        | <b>100%</b>        | <b>2.22</b>                              | <b>58.1%</b> |



# Ampoule Injections

## Increasingly rich in varieties, Production gradually scaled up

- 👑 In 1H2023, sales volume reached approx. 131 million, increased by 92% y-o-y; revenue accounted for HK\$453 million, decreased by 11% y-o-y mainly due to change of sales channel of Betahistine, revenue dropped (selling expense dropped at the same time, resulting little impact on net profit) and depreciation of RMB (6.5%)
- 👑 7 specifications won the tenders in national centralised procurement : Doxofylline, Ambroxol Hydrochloride, Ropivacaine Hydrochloride, Bromhexine Hydrochloride, Ornidazole, Methylcobalamin, Argatroban injection
- 👑 Focus to increase sales volume of national centralized procurement products : Bromhexine Hydrochloride\* revenue reached HKD180 million, increased by 4.6 times y-o-y; Ambroxol Hydrochloride\* revenue reached HKD 14.67million, increased by 98% y-o-y
- 👑 Market share of featured species further expanded : Dexmedetomidine revenue increased by 11.8 times y-o-y; Terbutaline Sulfate Nebuliser Injection revenue increased by 1.2 times y-o-y
- 👑 First or exclusive in consistency evaluations : Pentoxifylline injections sales volume expected to reach RMB100 million level
- 👑 Further increase in production capacity, from 560 million at the beginning of the year to 1,300 million

\*Remark: Bromhexine Hydrochloride is the 7<sup>th</sup> batch of national centralized procurement products, while Ambroxol Hydrochloride is the 4<sup>th</sup> batch SSY Group Limited • 16





## Solid Preparations

### Accelerated upgrade of production & sales scale, revenue contribution increases year by year

- 👑 In 1H2023, revenue accounted for HK\$244 million, increased by 68% y-o-y, contributed for 7.3% of total sales, increased by 3%pt y-o-y
- 👑 Antiviral drug : Abidol capsules, revenue accounted for RMB37.58 million, increased by 283% y-o-y
- 👑 4 products won national centralised procurement : Prucalopride Succinate tablet, Cefdinir capsule (revenue RMB39.48 million, increased by 4% y-o-y); Cefaclor for Suspension (revenue RMB13.06million, increased by 44% y-o-y); Felodipine/ Felodipine II Sustained-release Controlled-release Tablets
- 👑 First approval or consistency evaluation : Blonanserin tablets, Pentoxifylline Sustained-release tablets, Azithromycin for Suspension and Stiripentol for Suspension
- 👑 Strengthened business cooperation with the top 100 chain pharmacies, closely linked the commercial chain with the end-market, accelerated the market layout and promotion among professions of featured oral preparations with high market potential and technological content such as Amlodipine tablets, Rosuvastatin Calcium tablets
- 👑 Up to 11 Aug 2023, 20 oral preparations types with 26 specifications passed or regarded as passing consistency evaluation in China
- 👑 Annual capacity increased to 3.5billion tablets(pills)



## Bulk Pharmaceuticals

**Softer market demands and dropped product prices in the first half of the year, successively obtained approvals for featured bulk pharmaceuticals products with high-value added, product mix further diversified**

- 👑 In 1H2023, revenue accounted for HK\$454 million, decreased by 42% y-o-y. Mainly affected by the decrease in sales of caffeine and methylamine: caffeine sales volume 1,972 tonnes, drop of 39% as y-o-y; methylamine sales volume of 11,262 tonnes, drop of 15% y-o-y
- 👑 Key products with revenue growth in first half of the year : Azithromycin up 22%, Theophylline Aminophylline up 381%, Metronidazole up 15%
- 👑 40 types of bulk pharmaceuticals approved with specialised types as follows : Epacistat, Pitavastatin calcium, Rosuvastatin calcium, Blonanserin, Linezolid, Argatroban, Lacosamide, Theobromine, Pentoxifylline, Ornidazole, Levonidazole, Tertiary Sulfate Butaline, Cinacalcet Hydrochloride, Lurasidone Hydrochloride, Lurasidone Hydrochloride, Tedizolid Phosphate, L-malic acid, Urapidil Hydrochloride, Tofacitinib Citrate



## Steady operating result

- 👑 In 1H2023, revenue of external sales accounted for RMB80.04 million, increased by 6.4% y-o-y
- 👑 Newly developed products, such as bioprocessing films, specialised films for peritoneal dialysis solution, pistons for pen injectors, rubber plugs with coating and bicolour rubber plugs for blood collection tubes have successively achieved breakthroughs and scaled up in sales.
- 👑 Jiangsu Best New Medical Material's listing on the National Equities Exchange and Quotations (NEEQ) transition to Beijing Stock Exchange : In April 2023, application for listing counseling and filing procedures submitted to the Jiangsu Supervision Bureau of the China Securities Regulatory Commission, striving to accelerate the promotion to the A-share market of the Beijing Stock Exchange



### Exports of preparations rose against the trend

- 👑 In 1H2023, export of infusion solution: volume of 51.08 million bottles (bags), growth of 17% y-o-y, revenue of HK\$80.08 million, growth of 25% y-o-y
- 👑 In 1H2023, completed 24 product registrations in foreign countries
- 👑 Developed 11 new customers
- 👑 Currently exported 28 products and 65 specifications to over 90 countries and regions worldwide



## Research and Development

- Up to 11 August 2023, a total of 51 national production approvals were obtained (increased 37% y-o-y), including 43 for preparations and 8 for bulk pharmaceuticals
- Currently 54 product types with 72 specifications passed or regarded as passing consistency evaluation
- Research and development efficiency and quantity of generic drugs are among the best in China's pharmaceutical companies and ranked **top 10 chemical drugs research and development capabilities in China**.  
Up to 11 August 2023, 58 applications made to National Drug Administration Center for Drug Evaluation: 51 for preparations (including consistency evaluation), 7 for bulk pharmaceuticals. Currently, 146 items awaiting for approvals : 115 for preparations (including consistency evaluation), 31 for bulk pharmaceuticals
- The **first** approval/consistency evaluation in the PRC in 2023 : Pentoxifylline sustained-release tablets, Multiple electrolytes injection II, Stiripentol for suspension
- Group's 1<sup>st</sup> innovative drug - type I anti-tumor NP-01 project – achieved positive progress in Phase I clinical trial
- Currently, 212 projects under R&D and 122 products awaiting approval. By end of 2023, target to obtain 47 approvals and make 51 applications for new products



# Product passed/regarded passing consistency evaluation (54 Types, 72 Specifications)

| No. | Drug Name  | Specification | Remark               |
|-----|--|---------------|----------------------|
| 1   | Fluconazole Tablets                                    | 150mg         | The First            |
| 2   | Doxofylline Injection                                  | 10ml:0.1g     | The First            |
| 3   | Ropivacaine Hydrochloride Injection                    | 10ml:100mg    | The First            |
| 4   | Ciprofloxacin Lactate Sodium Chloride Injection        | 100ml         | The First            |
| 5   | Metronidazole Sodium Chloride Injection                | 250ml         | The First            |
| 6   | Blonanserine tablets                                   | 4mg           | The First            |
| 7   | Peritoneal Dialysis Solution (Lactate-G1.5%)           | 2000ml        | The First            |
| 8   | Peritoneal Dialysis Solution (Lactate-G2.5%)           | 2000ml        | The First            |
| 9   | Azithromycin dry suspension                            | 0.1g          | The First            |
| 10  | Pentoxifylline Injection                               | 5ml:100mg     | The First            |
| 11  | Pentoxifylline Sustained-release Tablets               | 400mg         | The First            |
| 12  | Stiripentol for Suspension                             | 250mg         | The First            |
| 13  | Stiripentol for Suspension                             | 500mg         | The First            |
| 14  | Fluconazole Sodium Chloride Injection                  | 50ml          | First specification  |
| 15  | Compound Electrolyte Injection II                      | 1000ml        | First specification  |
| 16  | Fluconazole Tablets                                    | 50mg          | Second               |
| 17  | Cefdinir capsule                                       | 0.1g          | Second               |
| 18  | Ciprofloxacin Lactate and Sodium Chloride Injection    | 200ml         | Second               |
| 19  | Fluconazole Sodium Chloride Injection                  | 100ml         | Second               |
| 20  | Metronidazole Sodium Chloride Injection                | 100ml         | Second               |
| 21  | Bromhexine Hydrochloride Injection                     | 2ml           | Second               |
| 22  | Terbutaline Sulphate Solution for Nebulization         | 2ml:5mg       | Second               |
| 23  | Acetaminophen Mannitol Injection                       | 100ml : 1g    | Second               |
| 24  | Sorbitol and Mannitol Irrigation Solution              | 3000ml        | Second               |
| 25  | Sodium Lactated Ringer Injection                       | 500ml         | Second               |
| 26  | Compound Electrolyte Injection II                      | 500ml         | Second               |
| 27  | Terbutaline Sulphate Solution for Nebulization         | 1ml           | Second specification |
| 28  | Thioctic Acid Injection                                | 24ml          | Second specification |
| 29  | Medium and Long Chain Fat Emulsion Injection (C8~24Ve) | 250ml         | Third                |
| 30  | Terbutaline Sulphate Injection                         | 1ml:0.5mg     | Third                |
| 31  | Prucalopride Succinate Tablets                         | 1mg           | Second               |
| 32  | Prucalopride Succinate Tablets                         | 2mg           | Second               |

Note: Acetaminophen Mannitol Injection was approved for the indication of relieving fever in adults, and it is the first domestic company to be approved.



# Product passed/regarded passing consistency evaluation (54 Types, 72 Specifications)

| No. | Drug Name  | Specification | No. | Drug Name   | Specification |
|-----|--|---------------|-----|---|---------------|
| 33  | Rosuvastatin Calcium Tablets                           | 10mg          | 53  | Ipratropium Bromide Solution for Inhalation             | 2ml:500µg     |
| 34  | Rosuvastatin Calcium Tablets                           | 5mg           | 54  | Ipratropium Bromide Solution for Inhalation             | 2ml:250µg     |
| 35  | Ropivacaine Hydrochloride Injection                    | 10ml:75mg     | 55  | Azithromycin dispersible Tablets                        | 0.25g         |
| 36  | Ambroxol Hydrochloride Injection                       | 1ml           | 56  | Lacosamide Injection                                    | 20ml          |
| 37  | Ambroxol Hydrochloride Injection                       | 2ml           | 57  | Felodipine Sustained-Release Tablets                    | 5mg           |
| 38  | Ambroxol Hydrochloride Injection                       | 4ml           | 58  | Ornidazole Injection                                    | 3ml:0.5g      |
| 39  | Moxifloxacin Hydrochloride & Sodium Chloride Injection | 250ml         | 59  | Ornidazole Injection                                    | 6ml:1.0g      |
| 40  | Linezolid and Glucose Injection                        | 100ml         | 60  | Lurasidone Hydrochloride Tablets                        | 40mg          |
| 41  | Dexmedetomidine Hydrochloride Injection                | 2ml           | 61  | Azithromycin for Injection                              | 0.5g          |
| 42  | Dexmedetomidine Hydrochloride Injection                | 1ml           | 62  | Argatroban Injection                                    | 2ml:10mg      |
| 43  | Lacosamide Tablets                                     | 50mg          | 63  | Sodium Acetate Ringer's Injection                       | 500ml         |
| 44  | Lacosamide Tablets                                     | 100mg         | 64  | Cinacalcet Hydrochloride Tablets                        | 25mg          |
| 45  | Moxifloxacin Hydrochloride Tablets                     | 0.4g          | 65  | Tedizolid Phosphate Injection                           | 200mg         |
| 46  | Levofloxacin and Sodium Chloride Injection             | 100ml : 0.5g  | 66  | Urapidil Hydrochloride Injection                        | 5ml           |
| 47  | Moxifloxacin Hydrochloride Eye Drops                   | 5ml           | 67  | Urapidil Hydrochloride Injection                        | 10ml          |
| 48  | Cefaclor Dry Suspension                                | 0.125g        | 68  | Citicoline Sodium Injection                             | 4ml:500mg     |
| 49  | Metronidazole Tablets                                  | 0.2g          | 69  | Tirofiban hydrochloride Concentrated Solution Injection | 15ml:3.75mg   |
| 50  | Levofloxacin Injection                                 | 20ml:0.5g     | 70  | Pitavastatin Calcium Tablets                            | 2mg           |
| 51  | Mecobalamin Injection                                  | 1ml           | 71  | Pitavastatin Calcium Tablets                            | 1mg           |
| 52  | Valsartan and Amlodipine Tablets (I)                   | 80mg/5mg      | 72  | Oseltamivir Phosphate Suspension                        | 6mg/ml        |

# PART 02

## Competitive Advantages







**Bulk Pharmaceuticals, Medical Materials, Preparations and Biotech - Diversified and Coordinated Development**

**I.V. Infusion Production Line  
Intelligent Manufacturing ,  
Largest Production Capacity on  
Single Factory Basis**

**Numerous Specifications,  
Complete Preparation  
Types, Wide Coverage**

**Numerous Prize Recognition,  
Main subsidiaries are  
specialized and special new  
enterprises**



## Bulk Pharmaceuticals, Medical Materials, Preparations and Biotech - Diversified and Coordinated Development

 石家庄四药集团  
SJZ No.4 Pharmaceutical



1 R&D institute, Production Bases: 2 preparation, 2 bulk pharmaceutical, 1 chemical and 1 medical material, forming whole-industry-chain by preparations + bulk pharmaceuticals + medical materials

- 22 I.V. Infusion production lines, annual 2 billion bottles(bags),
- 8 ampoule production lines, annual capacity 1,300 million,
- 4 oral preparation production lines, annual capacity 3.5 billion,
- 9 bulk pharmaceutical production lines, annual capacity 12,000 tons,
- 1 chemical production line, annual capacity 30,000 tons,
- Non-PVC film production line, annual capacity 25million sq. meters,
- Rubber stopper & gasket production line, annual capacity 3.5 billion units,
- Bioprocessing film production line, annual capacity 2,000 sq. meters,
- Production lines of emulsion, lyophilized powder injection, antitumor drugs, medical equipment and in vitro diagnostic (IVD) reagent under construction

# Diversified and Coordinated Development - Pharmaceutical R&D Institute



It covers an area of 85 acres and has advanced equipment such as high-efficiency/ultra-high-performance liquid chromatographs, gas chromatographs, Fourier infrared spectrometers, and the leading hardware level in the country.

It has more than 550 high-level professional research teams led by doctors and masters in synthesis, analysis, preparations and APIs, and has product pipelines in multiple fields such as tumor, antiviral, respiratory, neuropsychiatric, cardiovascular and cerebrovascular, biofilm, etc.

Co-founded innovative platforms such as engineering laboratories and technology research centers with numerous universities in China.



# Diversified and Coordinated Development – Preparations Production Base



## Shijiazhuang No.4 Pharmaceutical

**Major products:** Non-PVC Soft Bag IV,  
Upright Soft Bag IV, PP Plastic Bottle IV, Glass  
Bottle IV,  
PP Ampoule Injections,  
Tablets, Capsule and Granules

# Diversified and Coordinated Development – Bulk Pharmaceuticals Production Base

## Hebei Guangxiang Pharmaceutical

**Major products:** Caffeine

Theophylline , Aminophylline Series

Metronidazole, Benzoyl

Metronidazole

Nifedipine, Xanthinol nicotinate

## Cangzhou Lingang Youyi Chemical

**Major product:** Methylamine (API for caffeine and other pharmaceutical/agricultural products)



## Hebei Guolong Pharmaceutical

**Major productis:** Hydroxyethyl starch series

Respiratory system (Terbutaline, Bromhexine)

Anti-biotics (Azithromycin, Moxifloxacin, Linezolid)

Mental Nervous system (Lurasidone, Blonanserin)

Other (Tirofiban, Prucalopride Succinate)



# Specialised Bulk Pharmaceuticals

## Bulk Pharmaceuticals with status A owned by Hebei Guangxiang Pharmaceutical (22)

| Serial | Registration No. | Drug Name              | Status |
|--------|------------------|------------------------|--------|
| 1      | Y20200001269     | Epalrestat             | A      |
| 2      | Y20190007857     | Aminophylline          | A      |
| 3      | Y20190007856     | Theophylline           | A      |
| 4      | Y20190006345     | Niacin                 | A      |
| 5      | Y20190002961     | Benzoyl metronidazole  | A      |
| 6      | Y20190002960     | Nifedipine             | A      |
| 7      | Y20190002959     | Caffeine               | A      |
| 8      | Y20190002958     | Metronidazole          | A      |
| 9      | Y20200001432     | Pitavastatin Calcium   | A      |
| 10     | Y20200001464     | Lacosamide             | A      |
| 11     | Y20210000026     | Levonidazole           | A      |
| 12     | Y20210000025     | Ornidazole             | A      |
| 13     | Y20200001394     | Pentoxifylline         | A      |
| 14     | Y20210000024     | Rosuvastatin Calcium   | A      |
| 15     | Y20200001465     | Argatroban             | A      |
| 16     | Y20210000927     | Doxofylline            | A      |
| 17     | Y20210000931     | Tinidazole             | A      |
| 18     | Y20210000930     | Theobromine            | A      |
| 19     | Y20210000678     | Tedizolid Phosphate    | A      |
| 20     | Y20210001076     | Tofacitinib Citrate    | A      |
| 21     | Y20210001168     | Urapidil Hydrochloride | A      |
| 22     | Y20210001167     | Urapidil               | A      |



# Specialised Bulk Pharmaceuticals

## Bulk Pharmaceuticals with status A owned by Hebei Guolong Pharmaceutical (18)

| Serial | Registration No. | Drug Name                     | Status |
|--------|------------------|-------------------------------|--------|
| 1      | Y20200001123     | Cinacalcet Hydrochloride      | A      |
| 2      | Y20200000767     | ipratropium Bromide           | A      |
| 3      | Y20200000466     | Dexmedetomidine Hydrochloride | A      |
| 4      | Y20190001004     | Blonanserin                   | A      |
| 5      | Y20190021513     | Linezolid                     | A      |
| 6      | Y20190001130     | Lurasidone Hydrochloride      | A      |
| 7      | Y20190021527     | Terbutaline Sulfate           | A      |
| 8      | Y20190007337     | Hydroxyethyl Starch 40        | A      |
| 9      | Y20190007065     | Hydroxyethyl Starch 130/0.4   | A      |
| 10     | Y20190006891     | Tenofovir Disoproxil Fumarate | A      |
| 11     | Y20180001418     | Prucalopride Succinate        | A      |
| 12     | Y20170001049     | Tirofiban Hydrochloride       | A      |
| 13     | Y20170000871     | Moxifloxacin Hydrochloride    | A      |
| 14     | Y20170000397     | Arbidol Hydrochloride         | A      |
| 15     | Y20170000261     | Bromhexine Hydrochloride      | A      |
| 16     | Y20170000185     | Hydroxyethyl Starch 200/0.5   | A      |
| 17     | Y20170000182     | Azithromycin                  | A      |
| 18     | Y20190000687     | L-Malic Acid                  | A      |

# Diversified and Coordinated Development – Medical Materials Production Base



**Jiangsu Best New  
Medical Material**

**Major products:**

Bioprocessing film series

Multi-layer co-extrusion

infusion films

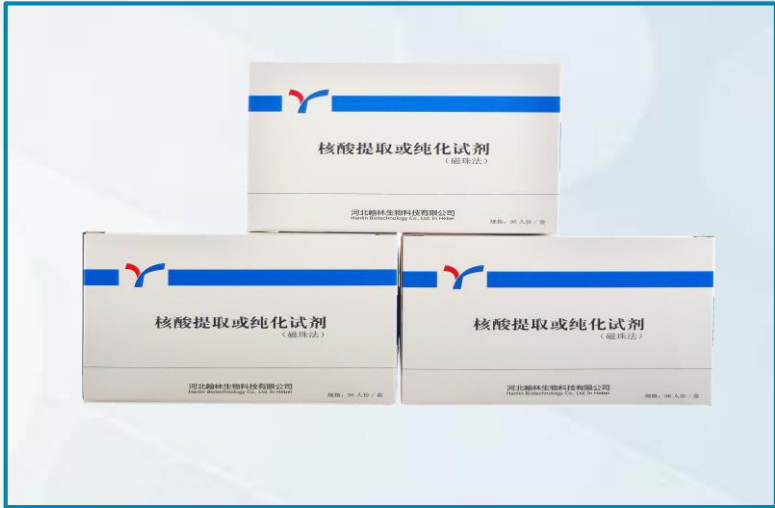
Rubber stopper series

Gasket series





# Diversified and Coordinated Development – Biotechnology and product development



## Hebei Hanlin Technology

- Major products :
- Medical Devices (Medical Beauty)
- In vitro diagnostic reagents
- Disinfectants



No. of Production approvals: **391**  
including

**282** Preparations, **40** bulk pharmaceuticals  
**41** medical materials and **28** other products

No. of Preparations approved: **282**  
including

**199** in Essential Drug List, **72** passed consistency  
evaluation, **13** in National Centralised Procurement

## Distribution of fields of preparation products

27% - cardiovascular system  
24% - nervous system  
15% - anti-infections  
9% - digestive system  
8% - respiratory system  
6% - electrolyte/nutrition  
4% - anti-tumor  
7% - other fields

## Examples of Specialised products



Pentoxifylline Injection



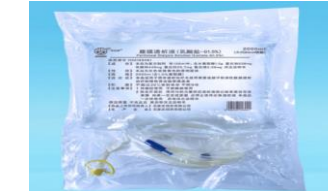
Blonanserin tablets



Arbidol Hydrochloride Capsules



Bromhexine Hydrochloride Injection



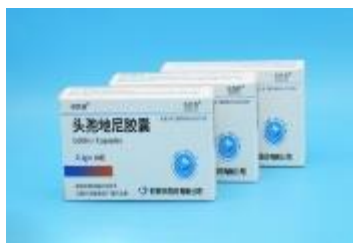
Peritoneal Dialysis Solution



Lacosamide Injection



# Numerous Varieties, Complete Dosage Form, Wide coverage



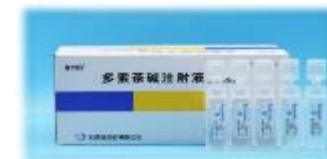
## Solid preparations

- **National Centralised Procurement :** Cefaclor for Suspension, Cefdinir capsule, Prucalopride Succinate tablet and Felodipine II Sustained-release Tablets
- **1<sup>st</sup> approval in PRC:** Blonanserine tablets, Azithromycin for suspension, Stipentol for suspension
- **1<sup>st</sup> passed consistency evaluation :** Pentoxifylline Sustained-release tablets



## I.V. Infusion

- **National Centralised Procurement :** Fluconazole Sodium Chloride Injection, Metronidazole Injection
- **1<sup>st</sup> passed consistency evaluation :** Peritoneal Dialysis Solution (Lactate-G1.5%, Lactate-G2.5%), Compound Electrolyte Injection II
- **Key products :** Ambroxol Hydrochloride, Mannitol, Fluconazole, Moxifloxacin Hydrochloride, Hemofiltration solution, Ciprofloxacin Lactate, Levofloxacin
- **Packaging :** Non-PVC soft bag, Upright soft bag, PP bottle, Glass bottle



## Ampoule Injections

- **National Centralised Procurement :** Doxofylline, Ambroxol Hydrochloride, Ropivacaine Hydrochloride, Bromhexine Hydrochloride, Ornidazole, Methylcobalamin and Argatroban
- **1<sup>st</sup> passed consistency evaluation :** Pentoxifylline Injection
- **Specialised products :** Terbutaline Sulfate Nebuliser Solution, Dexmedetomidine, Moxifloxacin Hydrochloride Eye Drops



# Market share increases for products in national centralised procurement

| National centralised procurement batch<br>( Time ) | Products being selected                            | Market share in PRC government hospitals |        |        |
|--|--|--|--------|--------|
|  |  | 2020                                     | 2021   | 2022   |
| 3 <sup>rd</sup> batch ( Aug 2020 )                 | Prucalopride Succinate tablet                      | 1.09%                                    | 6.59%  | 9.44%  |
|  | <b>Cefdinir capsule*</b>                           | 2.30%                                    | 32.60% | 38.56% |
| 4 <sup>th</sup> batch ( Feb 2021 )                 | Doxofylline Injection                              | 0.73%                                    | 7.69%  | 11.67% |
|  | Ambroxol Hydrochloride Injection                   | 0.31%                                    | 0.91%  | 3.10%  |
| 5 <sup>th</sup> batch ( Jun 2021 )                 | <b>Fluconazole Sodium Chloride Injection*</b>      | 0.37%                                    | 1.77%  | 18.88% |
|  | <b>Ropivacaine Hydrochloride Injection*</b>        | 0.00%                                    | 0.38%  | 12.03% |
| 7 <sup>th</sup> batch ( Jul 2022 )                 | Cefaclor for Suspension                            | 4.84%                                    | 3.16%  | 5.08%  |
|  | Bromhexine Hydrochloride Injection                 | 0.00%                                    | 16.01% | 42.16% |
| 8 <sup>th</sup> batch ( Mar 2023 )                 | Felodipine/Felodipine II Sustained-release Tablets |  |        |        |
|  | Ornidazole Injection                               |  |        |        |
|  | Metronidazole Injection                            |  |        |        |
|  | Mecobalamin Injection                              |  |        |        |
|  | Argatroban Injection                               |  |        |        |

\*In 2022, ranked top 3 in Cefdinir capsule, Fluconazole Sodium Chloride Injection and Ropivacaine Hydrochloride Injection market

## I.V. Infusion Production Line Intelligent Manufacturing, Largest Production Capacity on Single Factory Basis in PRC

| No.4 Pharma                  | I.V. Production Capacity Expansion |                     |               |                     |               |                     |               |
|------------------------------|------------------------------------|---------------------|---------------|---------------------|---------------|---------------------|---------------|
|                              | Year 2019                          | Increase / % change | Year 2021     | Increase / % change | Year 2022     | Increase / % change | Year 2023     |
| Non-PVC Soft Bag<br>(Note1)  | 750M                               | -                   | 750M          | -                   | 750M          | -                   | 750M          |
| Upright Soft Bag<br>(Note2)  | 300M                               | -                   | 300M          | -                   | 300M          | <b>600M/200%</b>    | 900M          |
| PP Plastic Bottle<br>(Note3) | 600M                               | 150M/25%            | 750M          | -                   | 750M          | -                   | 750M          |
| Glass Bottle                 | 200M                               | -                   | 200M          | -                   | 200M          | -                   | 200M          |
| <b>Total</b>                 | <b>1,850M</b>                      | <b>150M/25%</b>     | <b>2,000M</b> | <b>-</b>            | <b>2,000M</b> | <b>600M/30%</b>     | <b>2,600M</b> |

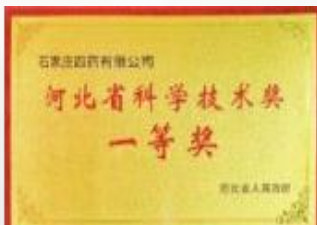
**(Note1) : Increased 20 million bags in large volume soft bag production line in year 2019**

**(Note2) : Increased 600 million bags in upright soft bag production line in year 2023**

**(Note3) : Increased 150 million bottles in plastic bottle production line by technical improvement in year 2021**



# Awards and recognitions



- ✓ Ranked 10 in Chemical Drugs R&D Capabilities in China in 2023
- ✓ China pharmaceutical independent innovation pioneer enterprise
- ✓ China innovative pharmaceutical companies
- ✓ National-level manufacturing individual champion enterprise
- ✓ Selected in the 2022 list of outstanding smart manufacturing scenarios
- ✓ National Intellectual Property Demonstration Enterprise
- ✓ Top 100 Enterprises in China's Pharmaceutical Industry

# PART 03

## R&D Status and Prospects

- Strategy in generic drugs R&D
- Specialised drug platform
- Products awaiting approval
- Products for approval application
- Key innovative drug R&D projects
- Strong external R&D support





# Strategy in generic drugs R&D

## Bulk pharmaceuticals

- Products requires difficult process/ special process products, self-owned patented technology products
- Forming Product series
- Bulk pharmaceuticals in shortage or monopoly
- Industrialization of Microchannel Technology

## Basic infusion solutions

- Sourcing domestic raw materials for basic infusion
- Continue to improve and internationalize product
- Facilitate clinical application of basic infusion packaging
- Maintain and consolidate product technology and market advantages

## Solid preparations

- Focus on products with large market demand and urgent clinical needs
- Bulk pharmaceuticals + preparation integration
- Extension of drug applications
- Sustained-release technology & product development

## Injections

- Complete the consistency evaluations of existing selected therapeutic infusion
- Diversification in therapeutic fields
- Scale-up of ampoule injections
- Development of anti-tumor, emulsions, lyophilized & long-release injections





# Strategy in generic drugs R&D (Key therapeutic fields)

## Respiratory system: injections/inhalation/oral

Stimulates lysosomal release from mucus-secreting cells (bromhexine); Phosphodiesterase (PDE) Inhibitors (Doxofylline); Cholinergic Receptor (M Receptor) Antagonist (Ipratropium Bromide); Beta-adrenoceptor agonists (terbutaline, epinephrine)

## Nervous system : oral/injections

GABA receptors and voltage-gated Na<sup>+</sup> channels (stipentol, exclusive product); Dopamine and serotonin receptor antagonists (blonanserin, 1<sup>st</sup> product); COMT and MAO-B inhibitors (Parkinson, single and combination agents) ; 5-HT\* receptor antagonists (antidepressants)

## Anesthesia and Contrast agent: Injection

Caines series (e.g. lidocaine, ropivacaine); Fat emulsion anesthetic preparation (the most advanced domestic production technology); Drugs for anesthesia; Contrast agents (gadolinium and indocyanine green)

## Cardiovascular system: oral/injection

Hypertension (single prescription, compound preparation); Hyperglycemia (extension of indications); Hyperlipidemia (representative products with different mechanisms); Nephrology field (combination of oral and dialysis) ; Others (Exclusive in passing consistency evaluation: Pentoxifylline Sustained Release Tablets)

## Antibacterial & antiviral field: oral/ injection

- Cephalosporins (dry suspension for children)
- Macrolides (injection, dry suspension)
- Conazoles (infusion, tablet, dry suspension)
- Floxacin (infusion, tablet, eye drop)
- Oxazolidinones (infusion, lyophilized, tablet, dry suspension)
- Nitazoles (infusion, water injection, tablet)
- Antivirals (Arbidol, Oseltamivir, etc.)



## Bulk Pharmaceuticals under review (Hebei Guangxiang)

| No. | Registration No. | Drug Name                     | Status | Expected approval |
|-----|------------------|-------------------------------|--------|-------------------|
| 1   | Y20210000927     | Doxofylline                   | A      | Approved          |
| 2   | Y20210000931     | Tinidazole                    | A      | Approved          |
| 3   | Y20210000930     | Theobromine                   | A      | Approved          |
| 4   | Y20210000678     | Tedizolid Phosphate           | A      | Approved          |
| 5   | Y20210001167     | Uradil                        | A      | Approved          |
| 6   | Y20210001168     | Urapidil Hydrochloride        | A      | Approved          |
| 7   | Y20210001076     | Tofacitinib Citrate           | A      | Approved          |
| 8   | Y20210001074     | Entacapone                    | I      | 2023.08           |
| 9   | Y20220000115     | Salbutamol Sulfate            | I      | 2023.08           |
| 10  | Y20220000118     | Levosalmbutamol Hydrochloride | I      | 2023.08           |
| 11  | Y20220000117     | Lidocaine Hydrochloride       | I      | 2023.09           |
| 12  | Y20220000116     | Vortioxetine Hydrobromide     | I      | 2023.10           |
| 13  | Y20220000359     | Benserazide Hydrochloride     | I      | 2023.11           |
| 14  | Y20220000360     | Isoproterenol Hydrochloride   | I      | 2023.11           |
| 15  | Y20220000599     | Rasagiline Mesylate           | I      | 2023.12           |
| 16  | Y20220000836     | Norepinephrine Bitartrate     | I      | 2024              |
| 17  | Y20220000874     | Butylphthalide                | I      | 2024              |
| 18  | Y20220000954     | Formoterol Fumarate           | I      | 2024              |
| 19  | Y20220000958     | Adrenaline                    | I      | 2024              |
| 20  | Y20220001108     | Phenylephrine Hydrochloride   | I      | 2024              |



## Bulk Pharmaceuticals under review (Hebei Guolong)

| No. | Registration No. | Drug Name               | Status | Expected approval |
|-----|------------------|-------------------------|--------|-------------------|
| 1   | Y20190000687     | L-malic acid            | A      | Approved          |
| 2   | Y20210000821     | Stippentol              | I      | 2023.08           |
| 3   | Y20220000356     | Nicorandil              | I      | 2023.11           |
| 4   | Y20220000426     | Etomidate               | I      | 2023.12           |
| 5   | Y20220000427     | Trexaglipatin Succinate | I      | 2023.12           |
| 6   | Y20220000598     | Cisatracurium Besylate  | I      | 2023.12           |
| 7   | Y20220000597     | Alogliptin Benzoate     | I      | 2023.12           |
| 8   | Y20210000676     | Safinamide Mesylate     | I      | 2024              |
| 9   | Y20220000818     | Dapagliflozin           | I      | 2024              |
| 10  | Y20220000910     | Doxazosin Mesylate      | I      | 2024              |
| 11  | Y20220001251     | Betahistine Mesylate    | I      | 2024              |
| 12  | Y20220001252     | Deferasirox             | I      | 2024              |
| 13  | Y20230000011     | Mexartan Potassium      | I      | 2024              |



# Type 3 Preparations under review

Expected to be approved by the end of 2023

| No. | Acceptance No. | Drug Name                               | Specification |
|-----|----------------|---|---------------|
| 1   | CYHS2101884    | Terbutaline Sulfate Injection           | 1ml:0.5mg     |
| 2   | CYHS2102018    | Lipoic Acid Injection                   | 24ml:600mg    |
| 3   | CYHS2101827    | Ornidazole Injection                    | 3ml:0.5g      |
| 4   | CYHS2101828    | Ornidazole Injection                    | 6ml:1.0g      |
| 5   | CYHS2102028    | Pentoxifylline Extended Release Tablets | 400mg         |
| 6   | CYHS1600212    | Sorbitol Mannitol Rinse                 | 3000ml        |
| 7   | CYHS2200020    | Oseltamivir Phosphate Dry Suspension    | 6mg/ml        |
| 8   | CYHS2200546    | Ondansetron Hydrochloride Tablets       | 8mg           |
| 9   | CYHS2200547    | Ondansetron Hydrochloride Tablets       | 4mg           |
| 10  | CYHS2200323    | Citicoline Sodium Injection             | 4ml:500mg     |
| 11  | CYHS2200617    | Stipopentol dry suspension              | 250mg         |
| 12  | CYHS2200618    | Stipopentol dry suspension              | 500mg         |
| 13  | CYHS2200496    | Tirofiban Hydrochloride Injection       | 15ml:3.75mg   |
| 14  | CYHS2200698    | Tinidazole Tablets                      | 0.5g          |
| 15  | CYHS2200719    | Ornidazole Tablets                      | 0.5g          |
| 16  | CYHS2201075    | Aminophylline Injection                 | 10ml          |
| 17  | CYHS2201076    | Aminophylline Injection                 | 20ml          |
| 18  | CYHS2201078    | Salbutamol Sulfate Injection            | 1ml           |
| 19  | CYHS2200543    | Linezolid Sodium Chloride Injection     | 300ml         |
| 20  | CYHS2200777    | Epalrestat Tablets                      | 50mg          |
| 21  | CYHS2201031    | Arbidol Hydrochloride Tablets           | 50mg          |
| 22  | CYHS2201221    | Cefuroxime Axetil Dry Suspension        | 0.125g        |
| 23  | CYHS2201222    | Cefuroxime Axetil Dry Suspension        | 0.25g         |
| 24  | CYHS2201219    | Ozagrel Sodium Injection                | 2.5ml         |
| 25  | CYHS2201220    | Ozagrel Sodium Injection                | 5ml           |
| 26  | CYHS2201248    | Citicoline Sodium Injection             | 4ml:1g        |
| 27  | CYHS2201328    | Nicorandil for Injection                | 12mg          |
| 28  | CYHS2201309    | Sodium Bicarbonate Ringer's Injection   | 500ml         |
| 29  | CYHS2201365    | Magnesium Sulfate Injection             | 2ml           |
| 30  | CYHS2201366    | Magnesium Sulfate Injection             | 10ml          |
| 31  | CYHS2201367    | Magnesium Sulfate Injection             | 20ml          |



# Type 4 Preparations under review

Expected to be approved by the end of 2023

| No. | Acceptance No. | Drug Name   | Specification |
|-----|----------------|---|---------------|
| 1   | CYHS2101193    | Lacosamide Injection                                | 20ml : 200mg  |
| 2   | CYHS2101621    | Felodipine sustained release tablets                | 5mg           |
| 3   | CYHS2101759    | Lurasidone Hydrochloride Tablets                    | 40mg          |
| 4   | CYHS2102124    | Argatroban Injection                                | 2ml: 10mg     |
| 5   | CYHS2102153    | Cinacalcet Hydrochloride Tablets                    | 25mg          |
| 6   | CYHS2200058    | Urapidil Hydrochloride Injection                    | 5ml           |
| 7   | CYHS2200059    | Urapidil Hydrochloride Injection                    | 10ml          |
| 8   | CYHS1900588    | Compound Electrolyte Injection II                   | 500ml         |
| 9   | CYHS1900589    | Compound Electrolyte Injection II                   | 1000ml        |
| 10  | CYHS2101706    | Pitavastatin Calcium Tablets                        | 2mg           |
| 11  | CYHS2101706    | Pitavastatin Calcium Tablets                        | 1mg           |
| 12  | CYHS2200320    | Tedizolid Phosphate for Injection                   | 200mg         |
| 13  | CYHS2200984    | Tedizolid Phosphate Tablets                         | 200mg         |
| 14  | CYHS2201023    | Ropivacaine Hydrochloride Sodium Chloride Injection | 100ml         |
| 15  | CYHS2201044    | Rasagiline Mesylate Tablets                         | 1mg           |
| 16  | CYHS2201195    | Propofol Medium / Long Chain Fat Emulsion           | 10ml          |
| 17  | CYHS2201196    | Propofol Medium / Long Chain Fat Emulsion           | 20ml          |
| 18  | CYHS2201268    | Vortioxetine Hydrobromide Tablets                   | 5mg           |
| 19  | CYHS2201269    | Vortioxetine Hydrobromide Tablets                   | 10mg          |



# Preparations under consistency evaluation review

Expected to be approved by the end of 2023

| No. | Acceptance No. | Drug Name   | Specification |
|-----|----------------|---|---------------|
| 1   | CYHB2250308    | Azithromycin for injection                                  | 0.5g          |
| 2   | CYHB2250342    | Sodium Lactated Ringer Injection                            | 500ml         |
| 3   | CYHB1950801    | Peritoneal Dialysis Solution (Lactate - G2.5% )             | 2000ml        |
| 4   | CYHB2050115    | Sodium Acetate Ringer Injection                             | 500ml         |
| 5   | CYHB2250493    | Low Calcium Peritoneal Dialysis Solution (Lactate - G1.5% ) | 2000ml        |
| 6   | CYHB1950835    | Sodium Bicarbonate Injection                                | 250ml         |
| 7   | CYHB1950769    | Potassium Chloride Injection                                | 10ml:1.5g     |
| 8   | CYHB1950790    | Potassium Chloride Injection                                | 10ml:1g       |
| 9   | CYHB2250614    | Low Calcium Peritoneal Dialysis Solution (Lactate - G2.5% ) | 2000ml        |
| 10  | CYHB2250688    | Metoprolol Tartrate Injection                               | 5ml           |



## Production approvals to submit (update: 11 Aug 2023)



### To submit soon

- ◆ 15 types of bulk pharmaceuticals
- ◆ 19 types of liquid preparations with 21 specifications
- ◆ 11 types of oral preparations with 15 specifications



# Major projects of innovative drug development

## Type I New Drug

- ( a ) **NP-01** : Type I new drug for gastric cancer, expected to complete phase I clinical trial by Nov 2023, start phase II clinical trial in Dec 2023
- ( b ) **ADN-9** : Anti-hepatic fibrosis type I new drug, phase I clinical trial expected to start in Dec 2023
- ( c ) **SYN-045** : Anti-pulmonary hypertension drug, expected to apply phase I clinical trial Pre-IND in Oct 2023

## Type II New Drug

- ( a ) **Miplatin Liposome** : Type II new drug for liver cancer, actively promote the phase I clinical trials, and is expected to apply for the phase I clinical trial by the end of 2023
- ( b ) **TPST Sustained-release preparations** : Hyperuricemia, reduce the number of administrations and fluctuations in blood concentration, under preclinical development
- ( c ) **WNKL Sustained-release Oral Preparation** : Atrial fibrillation, changing the route of intravenous administration, improving compliance, under preclinical development
- ( d ) **BWXT Sustained-release Oral Formulation** : Epilepsy, reducing dose frequency, plasma concentration fluctuations, under preclinical development
- ( e ) **Compound acetaminophen injection** : Antipyretic and analgesic Type II new drug, improving safety, under preclinical development
- ( f ) **Levonidazole injection** : Anaerobic bacteria, Type II new drug for small water injections, under preclinical development
- ( g ) **DBT injection** : Ischemic stroke, Type II new drug for injection small water injection, under preclinical development

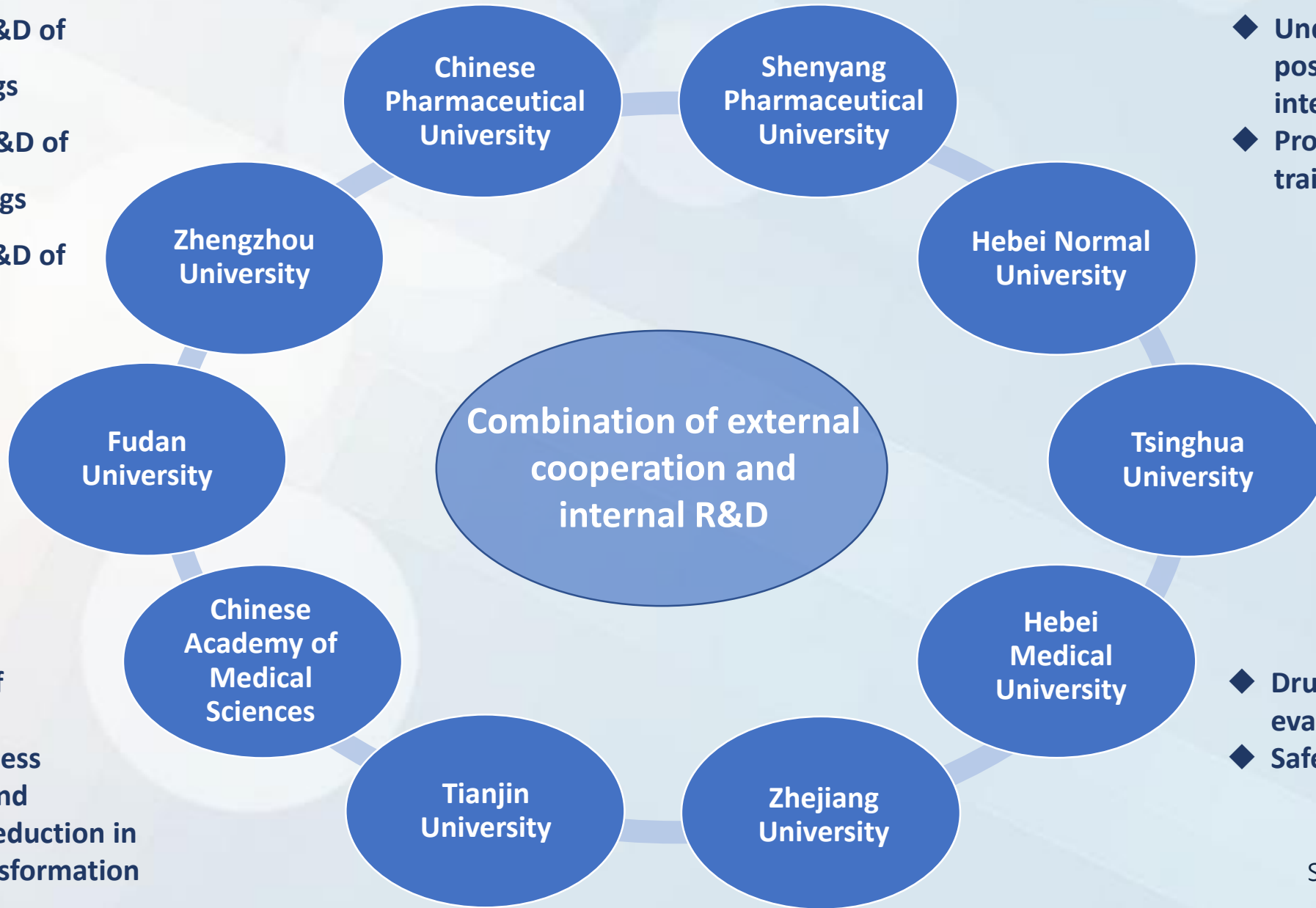




# Strong External R&D and Industrialization Support/Cooperation

- ◆ Collaborative R&D of Type I New Drugs
- ◆ Technological R&D of Type II New Drugs
- ◆ Collaborative R&D of generic drugs

- ◆ Undergraduate and postgraduate internship base
- ◆ Professional master's training



- ◆ Improvement of Pharmaceutical Production Process
- ◆ Energy Saving and Consumption Reduction in Equipment Transformation

- ◆ Drug efficacy evaluation
- ◆ Safety Evaluation

# PART 04

## Development Strategies

- Fields for development
- Bioprocessing films
- Intelligent production
- Production chains
- Advanced preparations



## Fields for development

**Generic Drugs** : Increase R&D continuously; focus on high-end bulk drugs; integrate specialized bulk drug + preparations

**Innovative Drugs** : Clinical trials and commercialization to proceed on schedule ; plan on drug development for children and elderly

### Bioprocessing films

On the basis of improving existing cell culture and albumin liquid storage bag film product series, to form the core R&D advantages of domestic bioprocessing films

### Intelligent production

Using big data, automation and AI to improve efficiency of production and R&D system;  
Automation in some key /special positions;  
To build high-end, intelligent and green “lighthouse” factory



### Production chains

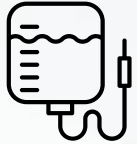
Expand the Group's production chains to achieve integration of bulk drug+ preparations;  
Profit maximization for key products

### Advanced preparations

Develop high-end/complicated preparations e.g. liposomes, emulsions, microspheres & perforated layered tablets;  
Establish a unique competition edge



# Prospects for development (2<sup>nd</sup> half of 2023)



IV : Maintain market leading position; increase proportion of therapeutic and soft bags; potential for higher profits and margins



Ampoule : Continuously enrich in varieties and increase capacity utilization; develop key products with market potential



Bulk pharmaceuticals : Reduce cost + increase efficiency; focus on high value-added specialized products; facilitate domestic and international markets



Oral and other preparations : seize opportunities in national centralised procurement, expand market size and influence on products which have passed consistency evaluation



Medical materials : In-depth development and technology improvement in bio-processing films; speed up the marketing of bio-processing films products



R&D : generic drugs+innovative drugs; external+internal resources; focus on chronic diseases, blood circulatory, emergency & anesthesia, antipyretic & analgesic, new anti-infection and anti-tumor fields



Capital operation : push forward Jiangsu Best transition of listing to Beijing Stock Exchange; actively seek M&A opportunities in pharmaceutical industry



# Company Contacts



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SSY Group Limited

*(incorporated in the Cayman Islands with limited liability)*

Stock Code: 2005.HK

|   |   |
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