石藥集團有限公司
CSPC PHARMACEUTICAL GROUP LIMITED

2023 1H Results

August 2023

China’s Leading Innovative Pharmaceutical Enterprise

R&D Capability

- **8** R&D platforms
- **5** R&D centres located in China & U.S.
- **~ 2,000** R&D staff
- **~300** R&D projects (~**130** innovative projects)
- R&D expenses in 2023 1H: RMB 2.3B

Commercialization Capability

- **10,000+ sales personnel**
- Covered **35,000+** medical institutions across the country, including **2,900+** Class 3 hospitals (more than 90%), **7,000+** Class 2 hospitals (more than 70%), and **26,000+** other terminals
- Products exported to **114** countries/regions in 6 continents, including the U.S. and Europe; marketing centers established in the U.S., Germany and Brazil

Manufacture Capability

- **10+** production bases
- Nano formulation： **27** production lines built with production capacity of **20M** doses/year; **2** production lines under construction with production capacity of **2M** doses/year
- Biologics: fermentation capacity of **40,000L**
- Chemical drugs: production capacity of OSD~**20B** tablets/year, production capacity of injection ~**3B** doses/year
- mRNA vaccines： GMP-compliant production plant has been ready
- siRNA: 2 pilot scale production lines completed, and a long-term commercial scale production line is planned

2023 1H Highlights

R&D

New drug approval:
Covid-19 mRNA vaccine (EUA)
Desvenlafaxine succinate extended-Release tablets

5 applications for marketing approval:
Enlonstobart （PD-1）,
Amphotericin B liposome
Prugliptin tablets （DPP-4）
Omalizumab, Batoclimab

18 IND approvals in China：
8 for the first indication
10 for additional indications

North America：
CPO301 obtained IND approval and granted fast track in the U.S.
CPO301 obtained IND approval in Canada

Business

- Revenue increased by **3.0%** to **RMB 16.08B**
- Underlying profit attributable to shareholders* (see page 6) increased by **3.0 %** to **RMB 3.16B**

BD

- Nectin-4ADC: licensed out the rights in the US, EU, UK, Canada, Australia, Iceland, Liechtenstein, Norway and Switzerland to Corbus, with **US$7.5M** upfront payment, potentially **US$685M** milestone payment and royalty.
- Obtained the exclusive promotion rights of Glumetinib (c-MET inhibitor) from Haihe Biopharma. The product has been approved for marketing in March 2023
- Signed a strategic partnership agreement to launch a local brand of the COVID-19 oral therapeutic treatment Nirmatrelvir/Ritonavir in China

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02 Business Review

03 R&D Capability

04 Pipeline

05 BD & ESG

Part 01

Financial Highlights

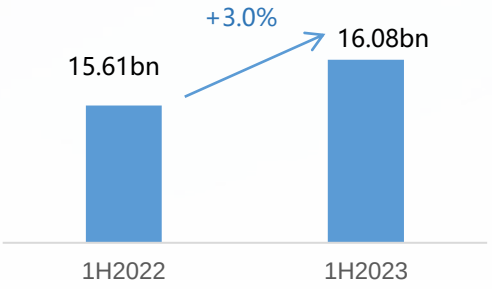
Financial Highlights

Unit: RMB '000

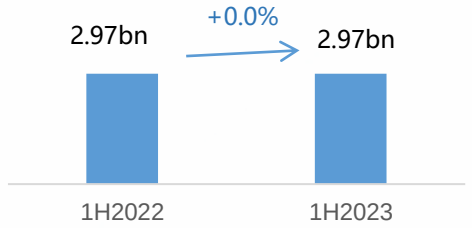
	1H2023	1H2022	Change
Revenue	16,080,412	15,610,026	+3.0%
Gross profit	11,237,639	11,338,484	-0.9%
Gross profit margin	69.9%	72.6%	-2.7pp
R&D expenses	2,303,611	1,884,077	+22.3%
Underlying profit attributable to shareholders*	3,161,861	3,068,763	+3.0%
Profit attributable to shareholders	2,966,987	2,966,205	+0.0%
Basic earnings per share (RMB cents)	24.95	24.89	+0.2%

*note:
Underlying profit attributable to shareholders, a non-HKFRS measure, represents profit before taking into account fair value loss on financial assets measured at fair value through profit or loss and employee share-based compensation expense

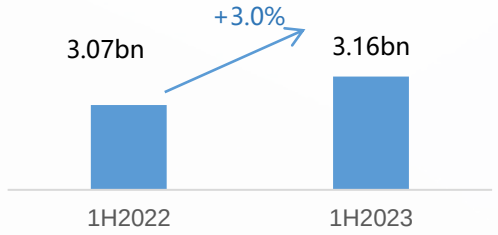
Revenue



Profit attributable to shareholders



Underlying profit attributable to shareholders



Revenue

Revenue by product category

Unit: RMB MM

	1H2023	1H2022	Change
Finished drugs	12,934	12,293	+5.2%
Bulk vitamin C	1,040	1,399	-25.7%
Bulk antibiotics	930	781	+19.1%
Functional Food and Other Business	1,177	1,137	+3.5%

Finished drug revenue

Unit: RMB MM

	1H2023	1H2022	Change
Nervous system disease products	4,553	3,874	+17.5%
Oncology products	2,988	4,035	-26.0%
Anti-infective products	2,143	1,753	+22.3%
Cardiovascular disease products	1,287	1,519	-15.3%
Respiratory disease products	874	274	+219.2%
Digestion & metabolism disease products	416	362	+15.1%
Products in other TAs	638	477	+33.9%
Licence fee income	35	-	-

Operating Profit

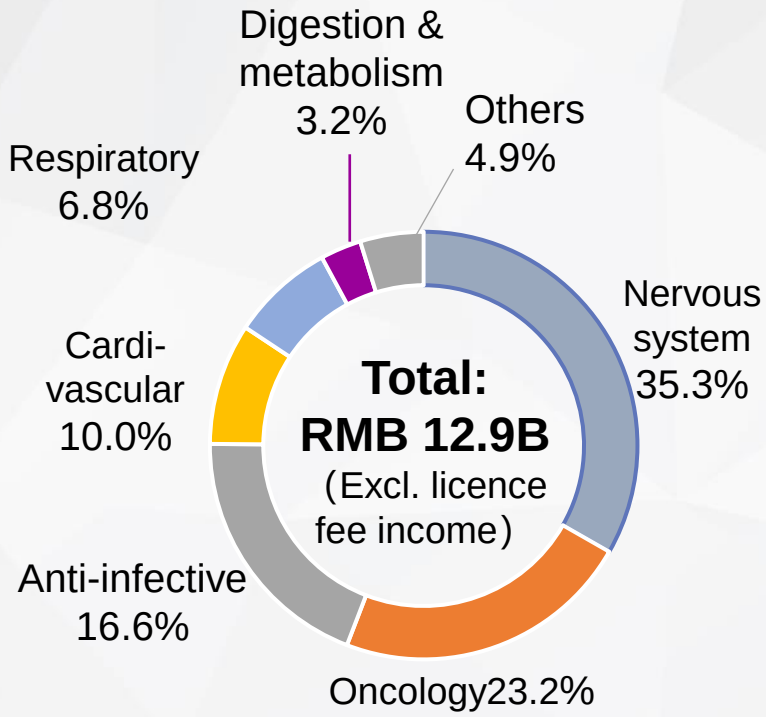
Unit: RMB MM

	1H2023	1H2022	Change	1H2023 OPM	1H2022 OPM	Change
Finished drug	3,192	3,008	+6.1%	24.7%	24.5%	+0.2pp
Bulk vitamin C	68	321	-79.0%	6.5%	23.0%	-16.5pp
Bulk antibiotics	71	72	-0.3%	7.7%	9.2%	-1.5pp
Functional Food and Other Business	331	286	+15.8%	28.1%	25.1%	+3.0pp

Part 02

Business Review

Finished Drug Overview by Therapeutic Areas



Nervous system	• Major products include NBP(butylphthalide soft capsules, butylphthalide and sodium chloride injection), Shuanling(pentoxifylline extended-release tablets, pentoxifylline injection), Oulaining (oxiracetam capsules, oxiracetam for injection), Enxi (pramipexole dihydrochloride tablets), Enliwei (lacosamide injection, lacosamide tablets and Oushuan (paliperidone extended-release tablets)
Oncology	• Major products include Duomeisu (doxorubicin hydrochloride liposome injection),Jinyouli (PEG-rhG-CSF injection), Keaili (paclitaxel for injection (albuminbound)) Duoenda (mitoxantrone hydrochloride liposome injection), Copiktra (duvelisib capsules) and Geruite (lenvatinib mesilate capsules)
Anti-infective	• Major products include Anfulike (amphotericin B cholesteryl sulfate complex for injection), Shuluoke (meropenem for injection), Nuomoling (amoxicillin capsules), Xianqu/Shiyao(ceftriaxone sodium for injection), Weihong (azithromycin capsules, azithromycin for injection), and Zhongnuo Lixin (cefuroxime sodium for injection)
Cardio-vascular	• Major products include Xuanning(levamlodipine maleate tablets and dispersible tablets), Mingfule(recombinant human TNK tissue-type plasminogen activator for injection), Encun(clopidogrel bisulfate tablets), Daxinning (dronedarone hydrochloride tablets) and Yishuning(nifedipine controlled-release tablets)
Respiratory	• Major products include Yiluoda (nintedanib capsules), Qixin (oseltamivir phosphate capsules), Qixiao (arbidol hydrochloride tablets), Nuoyian (montelukast sodium tablets/chewable tablets), Zhongnuo Like (ambroxol hydrochloride oral solution) and Zhongnuoping (ambroxol hydrochloride extended-release tablets)
Digestion & metabolism	• Major products include Debixin(omeprazole enteric capsules), Linmeixin (glimepiride dispersible tablets), Shuanglexin (metformin hydrochloride tablets/extendedrelease tablets) and Xinweiping(acarbose tablets)
Others	• Major products include Gubang (alendronate sodium tablets/enteric tablets), Xianpai (omeprazole sodium for injection) and Qimaite (tramadol hydrochloride tablets)

Key Products Overview

NBP

Butylphthalide soft capsules and injections

- 1st Class 1 new drug of cardio-cerebrovascular field in China
- Price cut after negotiation improves affordability and accessibility, benefiting more patients
- Significant growth in OTC and Internet channels
- New indication - vascular dementia （VaD） under clinical trails

Mingfule

Recombinant human TNK tissue-type plasminogen activator for injection

- Mainly used for the thrombolysis treatment in patients with acute myocardial infarction
- Recommended by ***Chinese Expert Consensus on Pre-hospital Thrombolysis*** and ***Guidelines for Rational Use of Drugs for STEMI*** and other authoritative guidelines
- BLA accepted by CDE for the treatment of acute ischemic stroke

Xuanning

Levamlodipine maleate tablets and dispersible tablets

- Exclusive product in China and the 1st new drug fully approved by U.S. FDA from China
- Leverage its integrated sales model of direct, cooperative and retail sales to drive a steady growth

Anfulike

Amphotericin B Cholesteryl Sulfate Complex for Injection

- Exclusive formulation, obtained marketing approval in March 2021; included in the NRDL in December 2021
- Covered ~1300 hospitals
- Significantly decrease nephrotoxicity and increase dosage

Duomeisu

Hydrochloride liposome injection

- Top player in China
- The first player passed consistency evaluation

Jinyouli

PEG-rhG-CSF

- 1st long-acting white blood cell booster drug in China
- Expanding coverage in major municipal hospitals and county-level markets
- Inclusion in the centralised procurement of the Guangdong Alliance of 11 provinces, enhanced accessibility of the drug will expedite a broader clinical use

Keaili

Paclitaxel for injection (albumin-bound)

- Completed contract renewal at the centralised procurement of Henan Alliance; the new price has been progressively adopted in other provinces, imposing significant pressure on product sales
- Deepening lower-tier market penetration in cities and county-level markets and striving to promote a comprehensive coverage of the product in tumor diseases

Duoenda

Mitoxantrone Hydrochloride Liposome Injection

- Exclusive new preparation worldwide with various patent granted in many countries; Obtained marketing approval in January 2022
- Various clinical trails in solid tumors undergoing, blockbuster potential

Bulk Product Business, Functional Food and Other Business

Bulk vitamin C

- Major products: vitamin C, vitamin C - sodium, vitamin C - calcium and granular vitamin C
- Sales was RMB1,040 million, a decrease of 25.7%. The price remained at a low level during the period, resulting in a decline in both sales and operating profit as compared with the same period last year

Bulk antibiotics

- Major products: 7-ACA (intermediate), cefazolin sodium, penicillin potassium, penicillin sodium, azithromycin and ampicillin sodium
- Driven by the increase in sales volume, sales of antibiotic products increased by 19.1% to RMB930 million for the period

Functional food and others

- Sales was RMB1,177 million, an increase of 3.5%. During the period, there was certain decline in the prices of caffeine products. However, both production and sales volume continued to increase, further increasing the global market share

Part 03

R&D Capability

R&D Overview

R&D Centre

- 5 R&D centres located in China & U.S.
- R&D expenses in 2023 1H: RMB2.3B

Technology Platform

- 8 national science & technology qualifications
- 2 state key labs
- 8 R&D technology platforms

Project under Development & IP

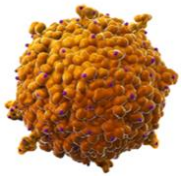
- Around 300 projects under development (around 130 innovative drug projects)
- 1733 IP applications
- 861 IP authorised

Science Projects& Government Support

- 87 national projects
- RMB 890M national funding
- 8 national prizes

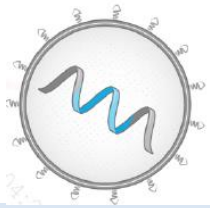
Innovative R&D Platforms

Nano-formulation



- Mitoxantrone liposome
- Albumin-bound docetaxel
- Paclitaxel nanoparticles (instant type)
- Cisplatin micelle

mRNA vaccine

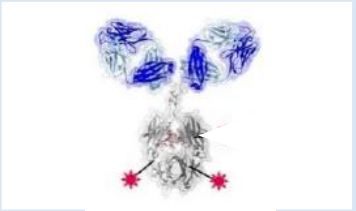


- Covid-19 mRNA vaccine
- Various preventive and therapeutic vaccines

siRNA

- PCSK9 siRNA and other chronic disease drugs

ADC



- HER2 ADC
- CLDN18.2 ADC
- Nectin-4 ADC

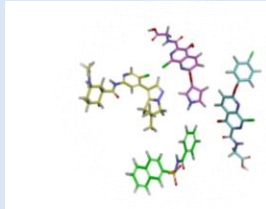
BsAb

- JMT601（CD47/CD20）
- JMT106
- SYS6013

mAb

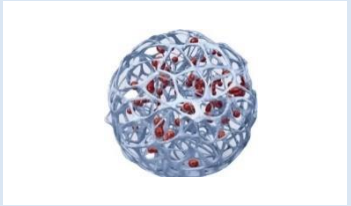
- JMT101 （EGFR）
- JMT103（RANKL）
- ALMB0168 (CX43 agonist)
- ALMB0166 (CX43 inhibitor)

Small molecule



- Prugliptin (DPP-4)
- Amuxetine
- SKLB1028 （FLT3）
- SYHA1813 (VEGFR/CSF1R)

Long-acting injection



- Octreotide Long-acting injection
- Paliperidone injection
- Leuprorelin microsphere injection

Note：only shows the representative products on each platform

Nano-formulation Platform

Nano-formulation development and manufacturing platform

Novel drug carrier design

- Invented Albumin nanoemulsion
- Developed new cationic materials and new delivery system

Novel drug delivery technology

- Invented ammonium salt gradient method of sulfobutylether-β-cyclodextrin and 5-sulfosalicylate
- Cholesterol PEGylation modification method and post single layer PEGylation

Novel preparation method

- Invented single-phase solution lyophilization technology、O/W type Emulsification technology、crossflow mixing technology、continuous flow reaction technology, etc.
- Invented bottom up nanocrystal preparation technology, enabling continuous production

Novel Industrialized production technology

- Invented continuous flow technology, employing linear amplifier，overcome barriers to industrialized production
- Illustrated that all nano drugs are able to be prepared by permutation and combination of four key processes

Nano-formulation assessment system

Particle characterisation method

- Developed nano-formulation assessment technology for lipsome, albumin nanoparticles, emulsion, micelles, etc.

PK determination method

- Established multiple PK determination methods for nano drugs including lipsome, albumin nano-particle, micelles，etc.

Mature animal screening models

- Established multiple animal disease model for efficacy assessment
- Established animal models for evaluating ABC phenomenon、CARPA response and HFS, enabling quick screening

Particle characterisation technique guided in vivo PK、PD、TOX evaluation

- Illustrated influence of drug release rate of lipsome, mode of administration and animal model on ABC phenomenon
- Detailed study of CARPA and HFS laid the foundations for rational design of nanoparticles

mRNA Vaccine platform

1 Advantages of antigen design

- Mutation prediction platform
- The combination of bioinformatics and structural biology to obtain effective epitopes
- Superior immunogenicity from site-specific mutation of antigen

2 mRNA vaccine design

- Base modification, UTR screening, codon optimization and structural elements inclusion
- Structural energy optimization to enhance antigen expression

3 Industrialization advantage

- Multiple nano-formulation products launched
- Top tier LNP R&D platform
- Manufacturing capacity reaches to 1.5 billion doses per year

4 Excellent safety profile

- No observed SAE in clinical trials
- Excipients proven to be low toxicity by launched products
- Base modification mitigates innate immunogenicity
- Formulation ensures long-term stability

5 Streamlined CMC Strategy

- One-step API manufacturing process
- API purification process : up to 99% purity
- Highly scalable LNP manufacturing process
- Short turnaround time: ~2 days

6 Platform robustness

- Each individual component can be continuously upgraded
- Expansion from linear mRNA to circRNA; from liver-target delivery to extrahepatic delivery
- From preventive to therapeutic application ; from vaccine to CGT

siRNA Platform

1 HTS screening platform

- Rational sequence design based on bioinformatics and experienced scientists
- Comprehensive in vivo and in vitro PK/PD characterization

2 CMC platform

- Build strong oligonucleotides CMC platform based on QbD strategy
- Develop liquid synthesis technology

3 Industrializationn advantage

- Industrialization advantage of CSPC
- Pilot scale and commercial scale manufacturing facilities are under construction

4 Excellent safety profile

- Superior safety profile in pre-clinical study
- Build off-target risk assessment platform
- Chemical modification to mitigate immunogenicity
- Long-term stability

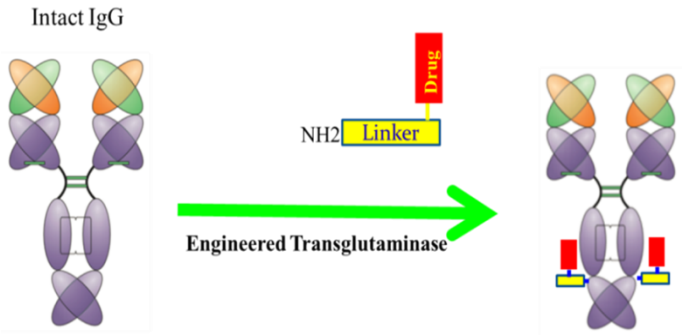
5 Nucleotides building blocks

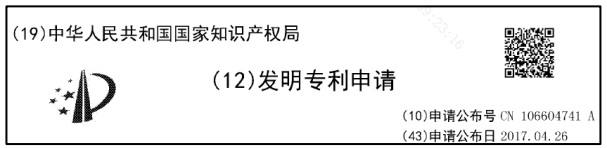
- Develop novel building blocks
- Develop Galnac molecule with in-house IP
- Scalable building blocks manufacturing technology
- Manufacturing capability of key building blocks

6 Platform robustness

- Each individual component can be continuously upgraded
- Integrated manufacturing capability from building blocks, API and drug product

ADC Platform




(19)中华人民共和国国家知识产权局

(12)发明专利申请

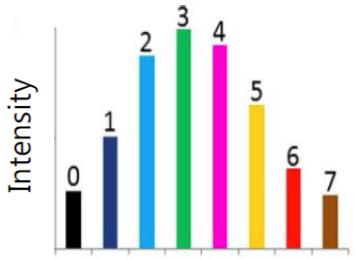
(10)申请公布号 CN 106604741 A

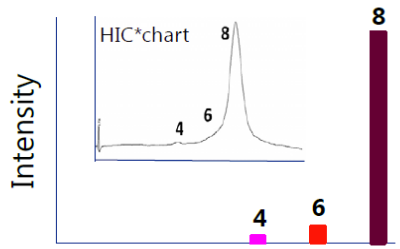
(43)申请公布日 2017.04.26

ADC Design	Characteristics	Advantages
Conjugation Mode	Engineering TGase catalysis	The specific conjugation on the homogeneous glutamine residue in the Fc region catalyzed by engineering modified Tgase can produce highly purified ADC molecule with stable DAR ratio, excellent PK character and wide therapeutic index
Conjugation Spot	Conserved Q295 residue on the heavy chain of the antibody	
Form of Antibody	Intact homogeneous IgG	Avoid introducing mutation or deglycosylation that may lead to the increase of immunogenicity

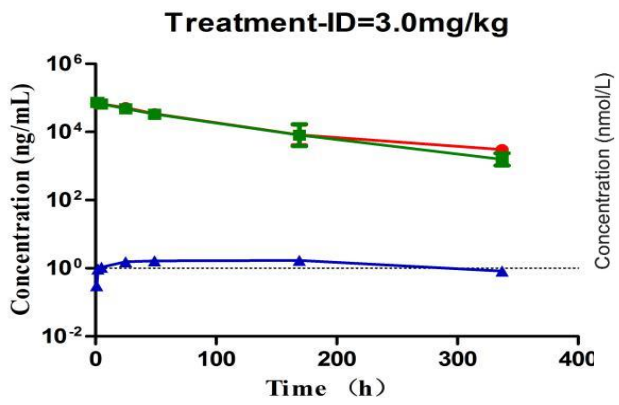
Fixed-point conjugation produces highly homogeneous DAR2 product

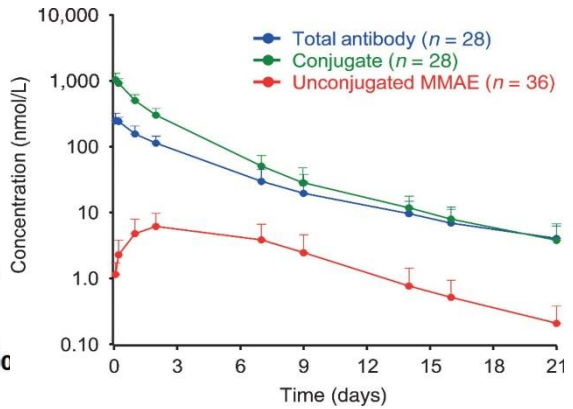
	T-DM1	DP303c
Antibody	Trastuzumab	Anti-HER2 Ab
Payload	Tubulin inhibitor (DM1)	Tubulin inhibitor (MMAE)
DAR	3.5	2





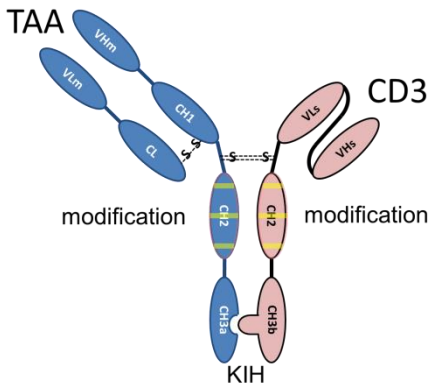
Extremely low proportion of free toxins in human plasma





Bispecific Antibody Platform

YBODY® bispecific antibody platform

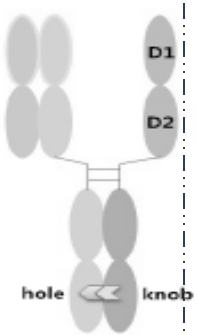


MW ≈ 125Kd

- ✓ Intact IgG：good PK/PD，convenient purification process
- ✓ Construction strategy for KIH and salt bridge：highly efficient heterodimer production
- ✓ A perfect T-cell redirecting bispecific antibody construction form Unique MOA, high titer, reduction of recurrence
- ✓ Low dose led to reduction of side-effect and treatment expense
- ✓ Expandable technology for antibody design & test platform

- In-house developed, global leading asymmetrical bispecific antibody platform YBODY® for tumor treatment
- Regulating the interaction between tumor cells and T cells
- SEC purity > 99%
- Titer > 5 g/L, stability test > 3 years
- Patent covering > 35 tumor-cell targets

CD47 targeting bifunctional fusion protein platform

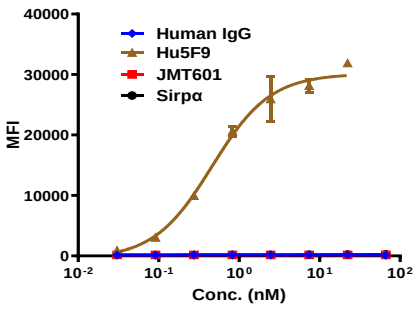


Left-arm:
high-affinity targeting of tumor semi-antibody

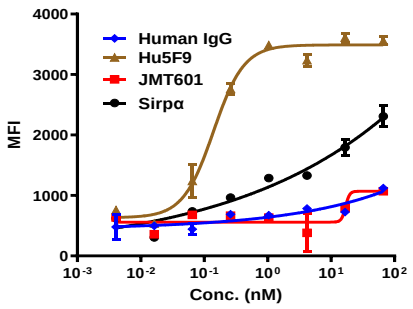
Right-arm:
Low-affinity targeting of SIRPα-Fc fusion protein

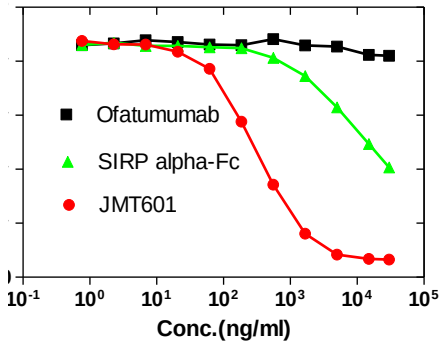
- ✓ Does not bind to TAA-/CD47+cells, including erythrocyte, platelet etc.
- ✓ TAA binds to CD47 with ADE

FACS Binding of Samples on Human RBCs



FACS Binding of Samples on Human Platelets





- High expandability: various types of tumor targeting antibody could be used as the left-arm
- Higher safety window.
- Lower molecular weight, better suits solid tumors
- Simple production process
- Possession of intellectual property right

Part 04

Pipeline

Candidates under Clinical Trial Stage

PhI (24)

- ALMB0166 Cx43i mAb
- NBL-012 IL23-P19
- NBL-015 CLDN18.2 mAb
- NBL-020 TNFR2
- SYS6002 Nectin-4 ADC
- SYS6010 EGFR ADC
- JMT203 GFRAL
- SYH2043 CDK2/4/6
- SYH2045 PRMT5
- SYHA1801 BRD4
- SYHA1803 Pan-FGFR
- SYHA1805 FXRs
- SYHA1807 LSD1
- SYHA1811 BTK
- SYHA1815 FGFR/RET
- SYHX2005 FGFR4
- SYHX1903 CDK9
- SYHX2001 PRMT5
- SYH2045 PRMT5
- SYHX2009 NTRK/ROS1
- SYH2043 CDK2/4/6
- SYH2051 ATM
- Cisplatin micelle
- SYHA1908

PhII (POC) (14)

- CLDN18.2 ADC
- CM326 TSLP
- ALMB0168 Cx43s mAb
- JMT601 CD20/CD47
- Amuxetine 5-HT/NE
- SYHA1402 ARi
- Simmitinib TKI
- SYHA1813 VEGFR/CSF1R
- NBP Capsule (US PhII)
- SYHX1901 JAK/SYK
- Albumin-bound Sirolimus
- Octreotide long-acting injection
- Alprostadil liposome
- Paclitaxel cationic liposome

PhII / III pivotal trial (16)

- JMT101 EGFR mAb
- CM310 IL4R
- KN026 Her2 BsAb
- TG103 Fc-GLP1
- Pertuzumab
- Ulsinumab
- DP303C HER2 ADC
- NBP Capsule (VaD) ☆
- SKLB1028 FLT3-TKI
- SYH2055 3CL
- SYHA121-28 RET-TKI
- Daunorubicin cytarabine liposome
- Paclitaxel nanoparticles (fast dissolving)
- Albumin-bound Docetaxel
- Clevidipine injectable emulsion
- Meloxicam nanocrystal injection

NDA (8)

- JMT103 RANKL
- rhTNK-tPA < 4.5h AIS☆
- SYSA1802 PD-1
- Omalizumab biosimilar
- Batoclimab
- DBPR108 DDP4
- Irinotecan liposome
- Amphotericin B Liposome

☆ additional indications

large molecule

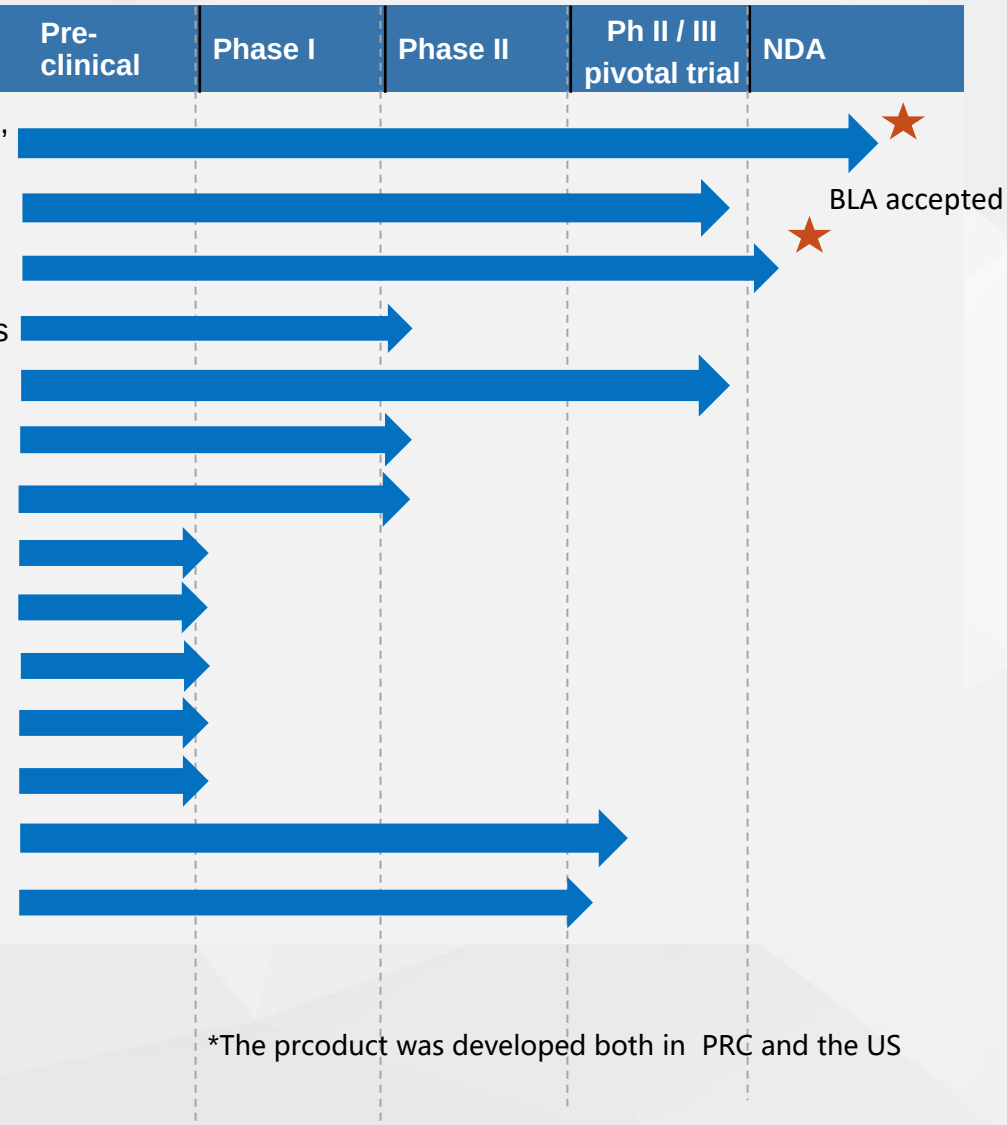
small molecule

new preparation

Pipeline – Large Molecule

Over 40 new biologic drugs under development: 5 filed BLA, 18 under clinical trial stage(7 under pivotal trial stage) and over 20 under pre-clinical stage

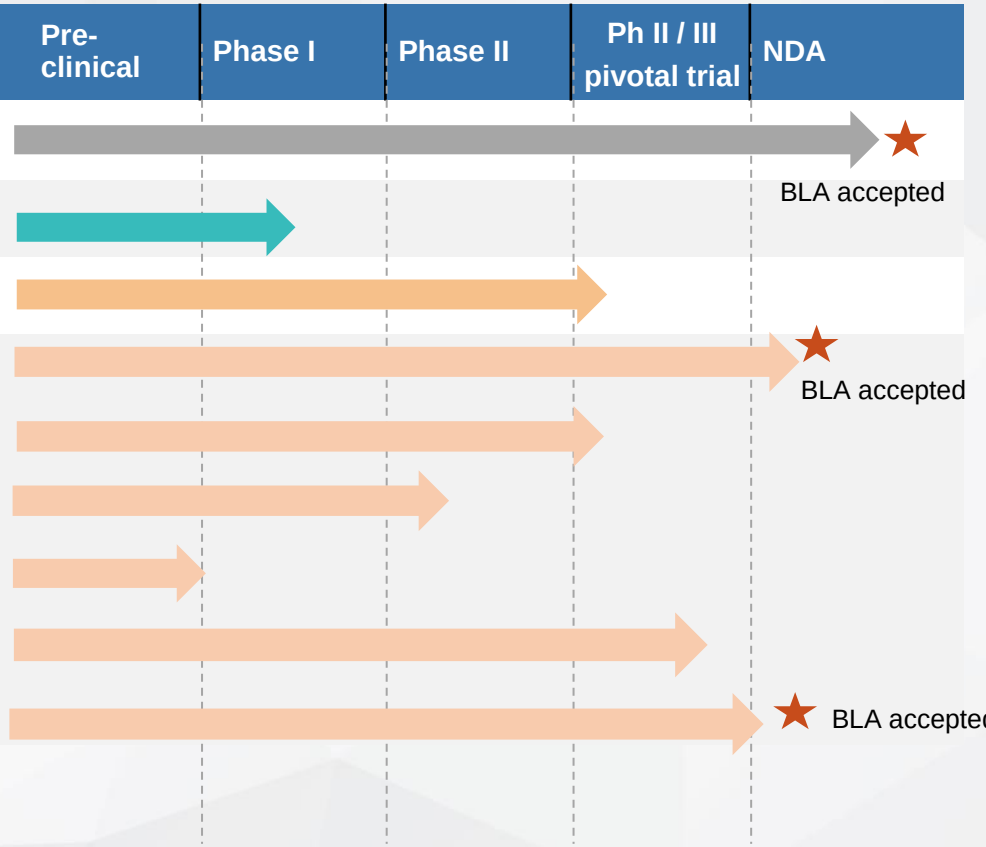
TA	Major Candidates	Target	Indication (s)
Oncology	JMT103	RANKL	Giant-cell tumor of bone, osteoporosis, bone metastasis
	JMT101	EGFR	Multiple solid tumors
	SYSA1802（SG001）	PD-1	Tumors
	JMT601*	CD47/CD20	NHL& multiple hematologic neoplasms
	DP303c	HER2 ADC	Breast, gastric or ovarian cancer
	ALMB0168	CX43 agonist	Bone cancer, cancer bone metastasis
	SYSA1801*	Claudin 18.2 ADC	Gastric cancer, pancreatic cancer
	NBL-015*	Claudin 18.2	Advanced solid tumor
	NBL-020*	TNFR2	Advanced solid tumor
	SYS6002*	Nectin-4 ADC	Tumors
	SYS6010*	EGFR ADC	Tumors
	JMT203	GFRAL	Cancer cachexia
	KN026	HER2 BsAb	Gastric cancer, breast cancer
	Pertuzumab biosimilar	HER2	Breast cancer



*The prcoduct was developed both in PRC and the US

Pipeline – Large Molecule

TA	Major Candidates	Target	Indication (s)
Cardiovascular	Mingfule	rhTNK-tPA	Acute ischemic stroke
Psychiatry & Neurology	ALMB0166	CX43 antagonist	Spinal cord injury
Digestion & Metabolism	TG103	GLP-1	Obesity, Diabetes, NASH, AD
Immune	Omalizumab biosimilar	IgE	Allergic asthma, CIU
	CM310	IL-4Rα	Asthma, COPD
	CM326	TSLP	Asthma, COPD
	NBL-012*	IL-23p19	Psoriasis, HS, IBD
	Ulsinumab	IL-12/IL-23	Moderate to severe plaque psoriasis
	Batoclimab	FcRn	MG



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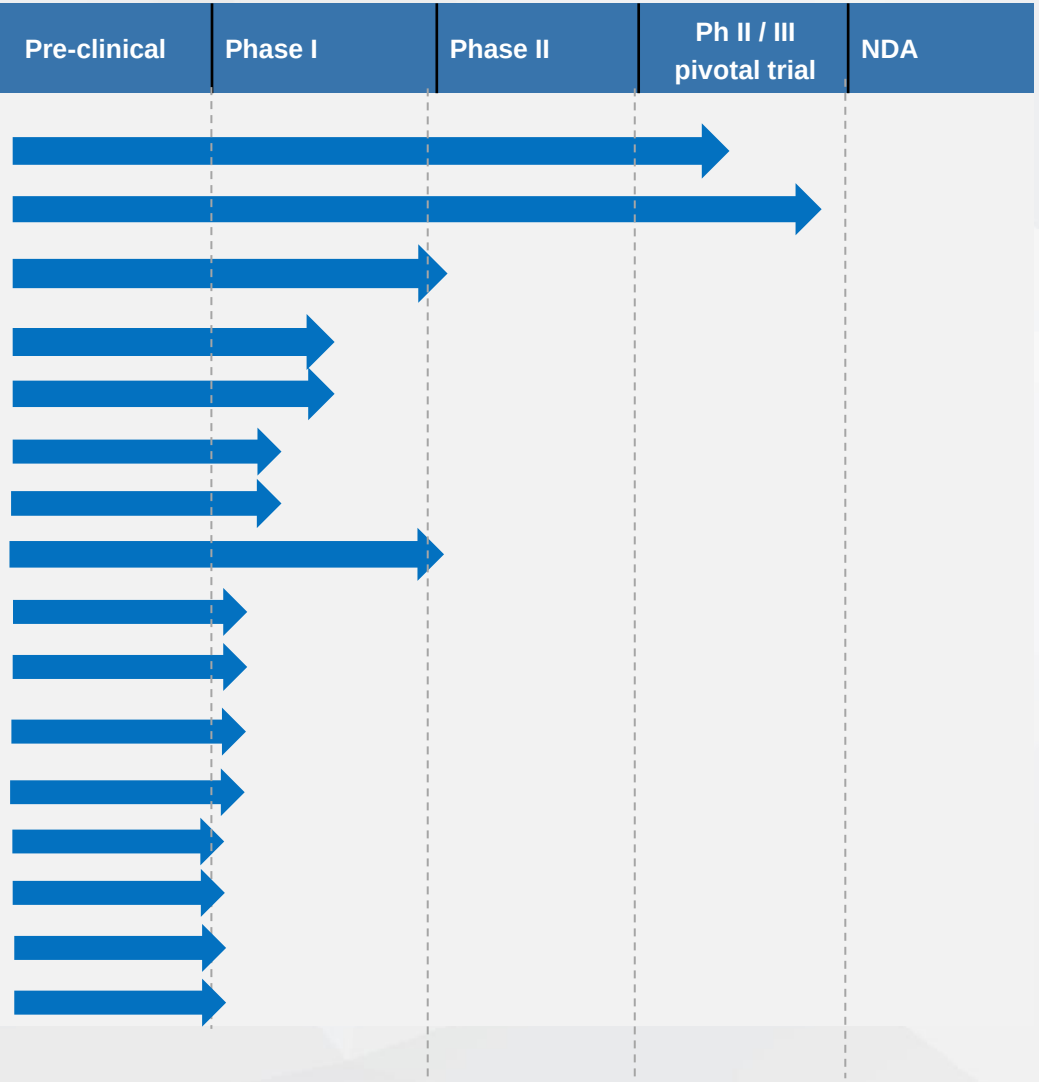
Pipeline - Small Molecule

Over 40 small molecule new drugs under development: 1 filed NDA, 22 under clinical trial stage (4 under Phase III / pivotal trial stage) and over 20 under pre-clinical stage

TA	Major Candidates	Target	Indication (s)
Oncology	SKLB1028	FLT3、Abl、 Lyn 、EGFR	Acute myeloid leukemia
	SYHA121-28	EGFR、VEGFR、FGFR、RET	Lung cancer
	Simmitinib	FGFR、KDR	Gastric cancer, cholangiocarcinoma, SQCC
	SYHA1801	BRD4	Advanced solid tumor
	SYHA1803	Pan-FGFR	Intrahepatic cholangiocarcinoma, urothelial carcinoma
	SYHA1807	LSD1	Lung cancer
	SYHA1815	RET、FGFR	Advanced solid tumor
	SYHA1813	VEGFR/CSF1R	Relapsed or advanced solid tumour
	SYHA1811	BTK	Leukemia, Lymphoma
	SYHX1903	CDK9	Hematological malignancies, solid tumors
	SYHX2001	PRMT5	Advanced solid tumor, r/r hematologic tumors
	SYHX2005	FGFR4	Advanced solid tumor
	SYHX2009	NTRK、ROS1	Solid tumor
	SYH2043	CDK2/4/6	Breast cancer
	SYH2045	PRMT5	Advanced malignant tumors
	SYH2051	ATM	Solid tumor



Pipeline - Small Molecule

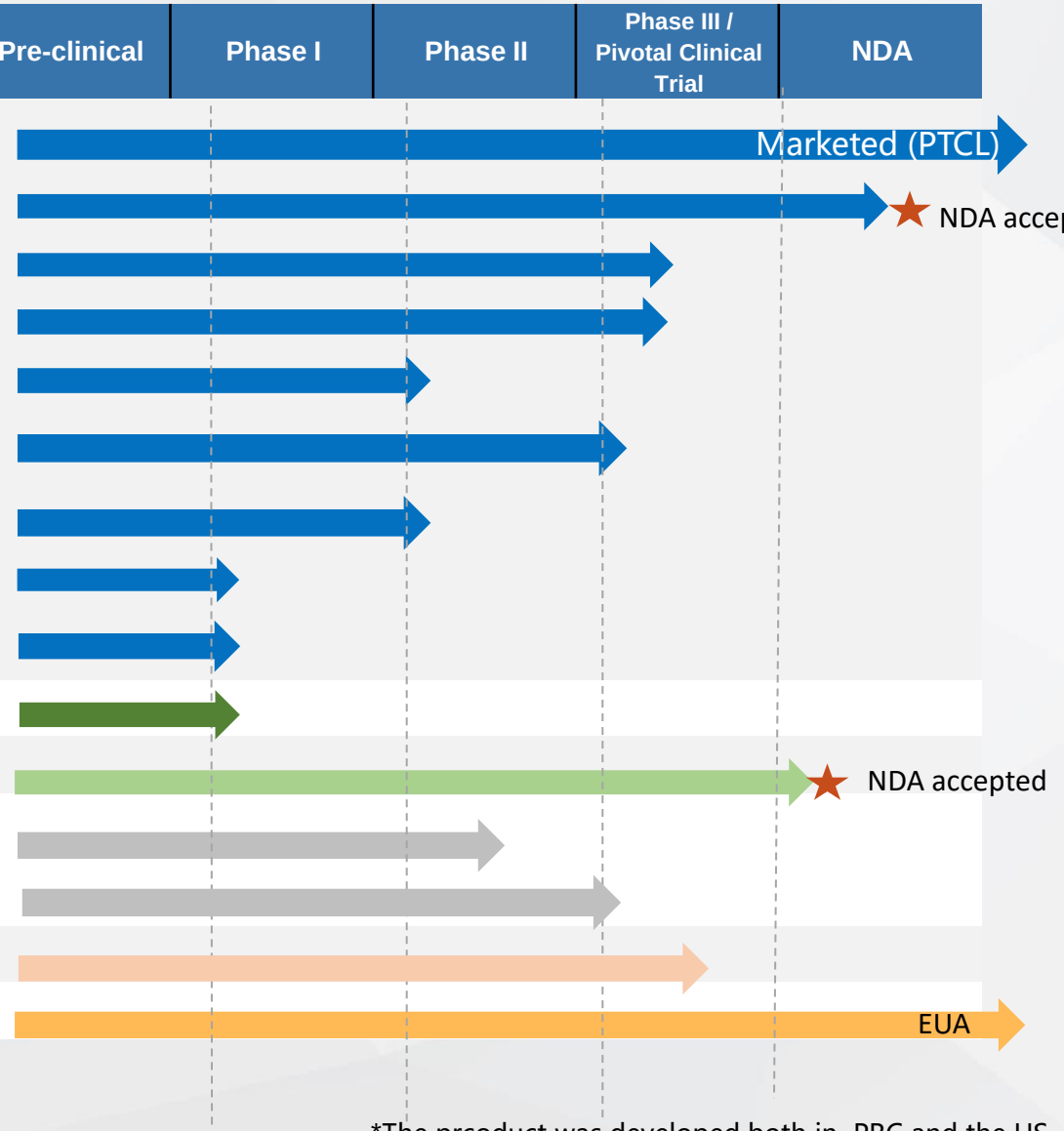
TA	Major Candidates	Target	Indication (s)	Pre-clinical	Phase I	Phase II	Ph II / III pivotal trial	NDA
Digestion & Metabolism	DBPR108	DPP-4	Diabetes					★ NDA accepted
	SYHA1402	ARI	Diabetic neuropathy					
	SYHA1805	FXR Agonist	NASH					
Psychiatry & Neurology	NBP soft capsule*		VaD, Ischemic stroke(US)					
	Amuxetine hydrochloride enteric tablets	5-HT, SNDRI	Antidepressant					
Immune	SYHX1901	Syk-Jak	RA, SLE， COVID-19					
Anti-infective	SYH2055	3CL	COVID-19					

*The prcoduct was developed both in PRC and the US

Pipeline - New Preparation

Over 30 new preparations under development: 2 applied marketing approval, 11 under clinical trial, and over 20 under pre-clinical stage

TA	Major Candidates	Indication(s)
Oncology	Mitoxantrone hydrochloride liposome injection *	Multiple hematologic neoplasms & solid tumors
	Irinotecan liposome *	Pancreatic cancer
	Daunorubicin cytarabine liposome	Leukemia
	Paclitaxel nanoparticles (fast dissolving)	Multiple solid tumors
	Paclitaxel cationic liposome	Advanced solid tumors
	Docetaxel for injection (albumin-bound) *	Multiple solid tumors
	Sirolimus for injection (albumin-bound)	Multiple hematologic cancers & solid tumors
	SYHA1908 for injection (class 1 new drug+nano drug)	Solid tumors
	Cisplatin micelle	Multiple solid tumors
Endocrinology	Octreotide Long-Acting Injection	Acromegaly
Anti-infective	Amphotericin B liposome *	Invasive fungal infection
Cardio-cerebrovascular	Alprostadil liposome	Vasodilation
	Clevidipine injectable emulsion	Hypertension
Immune	Meloxicam nanocrystal injection	Moderate-to-severe pain
Vaccine	mRNA COVID-19 vaccine	COVID-19



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Pipeline Products Launch Plan

- approx. 58 New Drugs /Indications approved within coming 6 years

Vaccine
Large molecule
Small molecule
New preparation
Non-oncology

2023

5

- mRNA vaccine COVID-19
- 3CL Pfizer licensed
- Desvenlafaxine Depression
- JMT103 （RANKL ） GCTB
- Irinotecan lipsome Pancreatic cancer

2024

7

- Batoclimab MG
- Mingfule Acute ischemic stroke
- Omalizumab Urticaria
- Meloxicam nanocrystal Postoperative analgesia
- Amphotericin B lipsome Invasive fungal infection
- DBPR108(DPP4) Diabetes
- SYSA1802(PD-1) ≥2LCervical cancer

2025

10

- TG103 Obesity, Diabetes
- Ulsinumab Plaque psoriasis
- NBP soft capsule VaD
- SYHA1402(Ari) Diabetic neuropathy
- Sirolimus for injection PEComa
- Docetaxel for injection (albumin-bound)) Pancreatic cancer
- JMT101(EGFR mAb) EGFR 20 ins NSCLC
- HA121-28(RET-TKI) Lung cancer
- DP303C(HER2 ADC) Breast cancer
- Paclitaxel nanoparticles Breast cancer

2026

12

- Semaglutide Diabetes
- Clevidipine injectable emulsion Hypertension
- Paliperidone palmitate (1M) Schizophrenia
- SYHA1813 Brain glioma
- SKLB1028（FLT3-TKI） r/r AML
- Pertuzumab biosimilar Breast cancer
- KN026(Her2 BsAb) HER2 + Gastric cancer
- JMT601(CD47/CD20) Lymphoma
- SYSA1801 (CLDN 18.2) Gastric cancer
- Daunorubicin cytarabine liposome AML/AML-MRC
- Mitoxantrone liposome DLBCL
- Mitoxantrone liposome Nasopharyngeal carcinoma

2027

12

- mRNA vaccine Rabies
- SYHX1901 Psoriasis
- CM310 (IL-4Rα) Asthma
- Batoclimab TED
- Paliperidone palmitate (3M) Schizophrenia
- Dexmedetomidine Sedation
- Paclitaxel cationic liposome Solid tumors
- Simertinib (TKI) Solid tumors
- JMT 203(GFRAL) Cancer cachexia
- KN026(Her2 BsAb) HER2 + breast cancer
- NBL-020 （TNFR2） Advanced solid tumors
- ALMB0168(Cx43s) Osteosarcoma

2028

12

- mRNA vaccine RSV
- mRNA vaccine VZV
- Tramadol celecoxib hydrochloride Pain
- Amoxetine Antidepressant
- Mitoxantrone liposome NMOSD
- Cisplatin micelle UC/pancreatic cancer
- SYHA1908 (C2 Docetaxel) Advanced solid tumors
- SYS6002 （Nectin4） Urothelial cancer
- NBL-015 (CLDN 18.2) Gastric cancer
- SYS6010 （EGFR ADC） Lung cancer/CRC/HNC
- SYH2051 （ATM inhibitor） Glioma
- SYHX2001 （PRMT5） Solid tumors

Common Generics Launch Plan

9 candidates have filed applications for marketing approval，expecting the approval in 2023-2024;
Over 20 candidates are under pharmaceutical research，expecting the approval in 2025-2026

No.	Product	Therapeutic Area	Expected to be launched
1	Sacubitril Valsartan Sodium Tablets	Cardio-cerebrovascular	2023
2	Dapagliflozin tablets	Digestion & Metabolism	2024
3	Olaparib tablets	Oncology	2024
4	Palbociclib tablets	Oncology	2024
5	Peramivir injection	Anti-infective	2024
6	Aprepitant injection	Others	2024
7	Dexrazoxane for injection	Others	2024
8	Roxadustat capsules	Others	2024
9	Regorafenib tablets	Oncology	2025

IND Approvals Obtained as of August 23

IND approval for the 1st indication (8+2)	
SYH2045 (solid tumors)	Meloxicam nanocrystal injection (moderate-to-severe pain for adults)
Clevidipine injectable emulsion (hypertension)	Octreotide long-acting injection (acromegaly)
NBL-020 (advanced solid tumors)	SYS6010 (advanced solid tumors)
SYH2051 （solid tumors）	JMT203 (tumor cachexia)
CPO301 (advanced solid tumors) (US& Canada)	
IND approval for additional indications (10)	
KN026 for injection –in combination with docetaxel (albumin-bound) for the treatment of first-line HER2 positive recurrent and metastatic breast cancer	Docetaxel for injection (albumin-bound)-in combination with SG001 (PD-1) for perioperative treatment of NSCLC
Docetaxel for injection (albumin-bound)-in combination with SG001 (PD-1) and cisplatin with concomitant radiotherapy for the treatment of locally advanced esophageal cancer	Docetaxel for injection (albumin-bound)-in combination with SG001 (PD-1) and cisplatin with concomitant radiotherapy for the treatment of locally advanced unresectable NSCLC
Docetaxel for injection (albumin-bound)-neoadjuvant treatment for luminal breast cancer	SYH2055 tablets-prevention of COVID-19
SG001(PD-1)-in combination with chemotherapy for first-line cervical cancer	CM326-COPD
Paclitaxel cationic liposome for injection- Arterial perfusion therapy in patients with advanced solid tumors who failed standard treatment	Simmitinib-in combination with SG001 (PD-1) for the treatment of solid tumors

Part 05

BD&ESG

BD Strategic Layout and Path of Advancement

Focusing on strategic domains, deepening BD strategies, and establishing an international BD ecosystem

BD Product Positioning： Aligning closely with clinical needs, emphasizing clinical benefits, grasping international cutting-edge technology and product trends, strengthening the leading areas of the group, focusing on pivotal clinical stage products in the mid to late phases, and exploring the untouched fields of nephrology and ophthalmology

BD Technology Platforms： Actively exploring collaboration and development of early-stage products with AI pharmaceuticals, antibody screening, nucleic acid drug antigen screening platforms, cellular and gene therapy technologies, and vaccine development platforms

Internationalization of BD： Pursuing a dual strategy of both licensing in and out, expanding international projects with leading multinational pharmaceutical companies and Belt and Road initiatives, reinforcing strategic relationships with funds, and advancing the connection and collaboration of global projects

BD Ecosystem Construction： Leveraging the advantages of the group's clinical development, registration and commercialization, adopting a Pharma+Biotech win-win model, engaging in extensive and in-depth collaboration with Biotech companies or research institutions that possess innovative advantages in specific areas or technology platforms, meanwhile considering practical and feasible merger and acquisition models, to continue supporting the group's external innovation

BD Work Completion Status for the First Half of 2023

- **License-out:**
  - Granted Corbus Pharmaceuticals the development and commercialization rights for SYS6002 (Nectin-4ADC, Phase 1) in the United States, European Union countries, the United Kingdom, Canada, Australia, Iceland, Liechtenstein, Norway, and Switzerland
- **License-in：**
  - Obtained Pfizer's exclusive authorization to locally market the oral antiviral COVID-19 treatment medication-Namatavir Tablets/Litoconavir Tablets in China

2023 BD Strategy in Key Therapeutic Areas

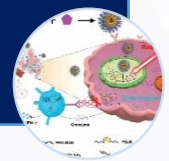
Reinforce Leading Position in Established Areas

- Comprehensive management of stroke disease, with a focus on the strategic positioning and collaboration of innovative drug projects in vascular recanalization, neuroprotection, and anti-inflammation that synergize with the company's existing resources
- Attention to late-stage clinical or newly approved drugs in Alzheimer's Disease (AD) , as well as emerging novel targeted therapeutics

Neurology Field

- Strengthen differentiation in hematologic malignancies, lung cancer, and breast cancer, focusing on targeted therapies, new immunotherapies, and combination treatments
- Explore innovative drugs in areas such as digestive tract tumors, gynecological tumors, and urological tumors

Oncology Field



- Focus on challenging areas like refractory hypertension, hyperlipidemia, and heart failure
- Pay attention to long-acting, oral diabetes/weight loss innovative products
- Address thyroid diseases and innovative treatments related to gout

Cardiovasclular and Endocrinology Field

- Emphasize areas like idiopathic pulmonary fibrosis (IPF), COPD/asthma, and cough, exploring innovative therapeutic targets, drug-device combinations, and drug delivery systems
- Focus on high-end antibiotics effective against clinically resistant bacteria
- Address conditions such as atopic dermatitis, systemic lupus erythematosus, and inflammatory bowel disease (IBD)

Respiratory, Autoimmune, and Anti-Infective Field

Explore Novel Therapeutic Areas and Technology Platforms

- Address primary and secondary kidney diseases like IgA nephropathy and diabetic nephropathy
- Focus on complications of kidney diseases like renal anemia, hyperphosphatemic kidney disease, hypertension, and kidney-related itching

Nephrology Field

- Concentrate on well-established companies with mature late-stage ophthalmology pipelines
- Focus on products for treating retinal diseases like AMD using new targets, long-acting formulations, nano formulation, and gene therapies, with a special focus on geographic atrophy indications

Ophthalmology Field

- Focus on therapeutic nuclear medicine, breaking through new therapeutic targets, new indications, and new isotopes while avoiding homogenization
- Continuously research upstream isotope supply issues and address key problems related to downstream nuclear medicine construction and national regulatory dynamics

Nuclear Medicine Field

- Expand into major population-based psychiatric disorders like depression and schizophrenia, focusing on the layout and collaboration of novel targeted drugs with improved efficacy, safety, and compliance
- Emphasize fast-acting nasal spray formulations.

Psychiatry Field

- Chronic Pain: Focus on innovative drug projects that provide better pain relief, higher safety, and non-addictive properties
- Acute Pain: concentrate on innovative projects that extend postoperative pain relief duration while maintaining higher safety.

Pain Management Field

- Address the innovation gap in orthopedic drugs, emphasizing solutions that alleviate clinical symptoms and meet the unmet needs of both patients and healthcare providers

Orthopedics Field

Aim to Become an ESG Leader in Pharmaceutical Industry

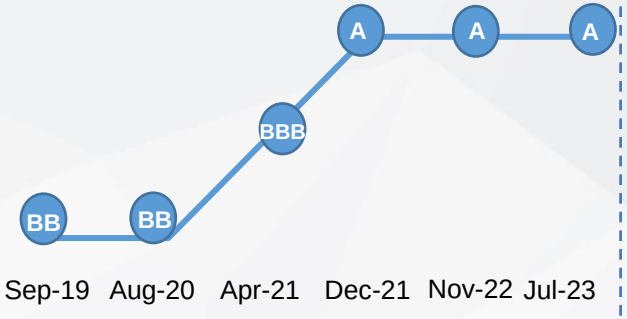
- Awarded “AAA Enterprise with Harmonious Labour Relations in Hebei Province” and “National Advanced Enterprise in Employment”
- Achieved “Five Zeros and One Low”*
- The major shareholder of the Group granted 220m conditional shares to over 300 employees in 2022
- Improving board diversity continuously

People orientated, Win-win Future

Co-creation &Sharing, Hand-in-hand Development

- Adhere to the procurement principle of “fair, impartial, green and transparent”
- Online bidding and procurement; supplier integrity commitment; *Blacklist Management System for Dishonesty*

Continuous MSCI ESG rating upgrade



Environmentally-friendly, Carbon Emissions Reduction

- Structural reduction of carbon emissions - the ratio of innovative drugs /formulations increasing and the ratio of APIs decreasing
- Invested RMB200m in upgrade of green factories in 2022
- A centralised process water system was put to use in No. 1 Manufacturing Centre in 2022, effectively reducing the use of water resources
- The subsidiaries including Ouyi, NBP and Zhongnuo Taizhou are recognized as “Green Factories” by the MIIT

Mission-led, Responsibility taken

- Under the outbreak of Covid 19 in China, produced urgently needed drugs at full capacity to alleviate the market shortage; received condolences and thanks from the MIIT
- CSPC Education Assistant Fund- helped 367 college students in 2022
- Medical care program for poor children- helped 63 children in 2022
- Cancer and critical illness patients assistant program- assisted 50 patients in 2022

Environmental Protection Plan 2025

- ✓ Reduce greenhouse gas emissions per unit of revenue by 50%
- ✓ Reduce the emission of non-hazardous waste (general solid waste) per unit of revenue by 70%
- ✓ Reduce the discharge of hazardous waste per unit of revenue by 25%;
- ✓ Reduce the comprehensive energy consumption per unit of revenue by 47%
- ✓ Reduce the water consumption per unit of revenue by 27%

**The emission reduction target is based on the emission in 2017*

**Five Zeros and One Low- zero cases of death, serious injuries, multiple injuries, occupational disease and poisoning incident as well as low incident rate of minor injuries*

WeChat of CSPC IR Team：

Thanks!