## Global Premier Biologics Platforms to Enable Innovations

## WuXi Biologics 2018 Annual Result (2269.HK)

**March 2019** 





## **Forward-Looking Statements**



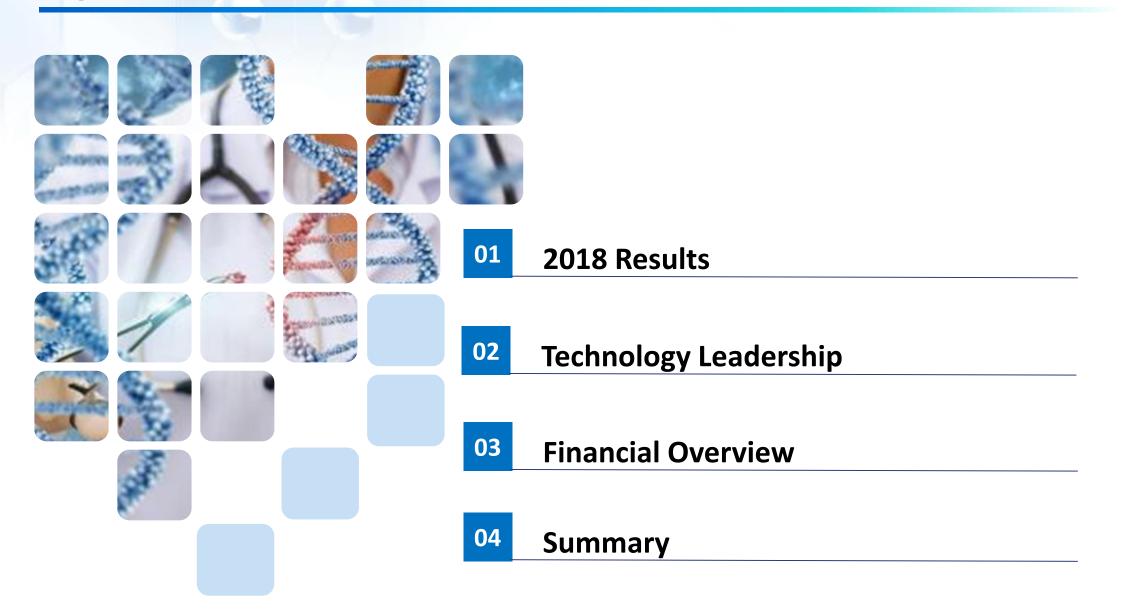
This presentation may contain certain "forward-looking statements" which are not historical facts, but instead are predictions about future events based on our beliefs as well as assumptions made by and information currently available to our management. Although we believe that our predictions are reasonable, future events are inherently uncertain and our forward-looking statements may turn out to be incorrect. Our forward-looking statements are subject to risks relating to, among other things, the ability of our service offerings to compete effectively, our ability to meet timelines for the expansion of our service offerings, and our ability to protect our clients' intellectual property. Our forward-looking statements in this presentation speak only as of the date on which they are made, and we assume no obligation to update any forward-looking statements except as required by applicable law or listing rules. Accordingly, you are strongly cautioned that reliance on any forward-looking statements involves known and unknown risks and uncertainties. All forward-looking statements contained herein are qualified by reference to the cautionary statements set forth in this section.

## **Use of Adjusted Financial Measures (Non-IFRS Measures)**

We have provided adjusted net profit, net profit margin, EBITDA, EBITDA margin and diluted earnings per share for the first half of 2016 and 2017, which excludes the share-based compensation expenses, Listing expenses and foreign exchange gains or losses, and are not required by, or presented in accordance with, IFRS. We believe that the adjusted financial measures used in this presentation are useful for understanding and assessing underlying business performance and operating trends, and we believe that management and investors may benefit from referring to these adjusted financial measures in assessing our financial performance by eliminating the impact of certain unusual and non-recurring items that we do not consider indicative of the performance of our business. However, the presentation of these non-IFRS financial measures is not intended to be considered in isolation or as a substitute for the financial information prepared and presented in accordance with IFRS. You should not view adjusted results on a stand-alone basis or as a substitute for results under IFRS, or as being comparable to results reported or forecasted by other companies.

## Agenda







# I. 2018 Results



205

57

13

**New Projects** 

**Integrated Projects** 

Late Phase Projects

**Total Backlog** 

**Capacity by 2022** 

**Employees/Scientists** 

**US\$3.6B** 

220,000L

4,141/1,600



¥2,534.5M

Y751.5M Adj Net Profit

57%

Revenue YoY Growth

**74%** Adj Net Profit YoY Growth

**40.2%** 

**Gross Margin** 

**29.7%** Adj Net Profit Margin

## **Business Model**



#### **Our Mission**

To accelerate and transform pharmaceutical discovery, development and manufacturing in the fast growing field of biologics to benefit patients worldwide



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### **Our "Follow-the-Molecule" Integrated Solution Model**

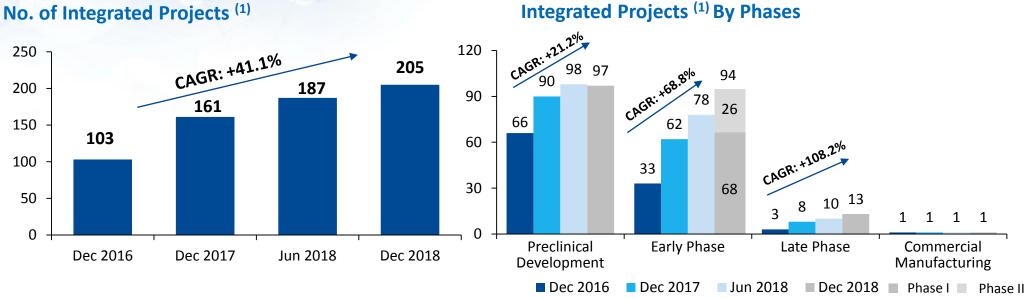
Our customers' demand for our services increases as their biologics advance through development and ultimately to commercialization, which allows our revenue from each project to grow geometrically as the project advances through the biologics development cycle

#### **Revenue from each project increases with its stages**

Biologics Development Process	Typical Duration	Typical Revenue	
Pre-IND			
Drug Discovery	2 Years	US\$1.5-2.5 mm (Milestone fee ranges from US\$ 10-100 mm Royalty fee ranges from 3% to 5%)	
Pre-Clinical Development	2 Years	US\$4-6 mm	
Post-IND			
Early-Phase (Phases I & II) Clinical Development	3 Years	US\$4-6 mm	
Late-Phase (Phase III) Clinical Development	3-5 Years	US\$20-50 mm	
Commercial Manufacturing	Annually	US\$50-100 mm annually	

## **Solid Business Progress – Integrated Projects**







#### Notes:

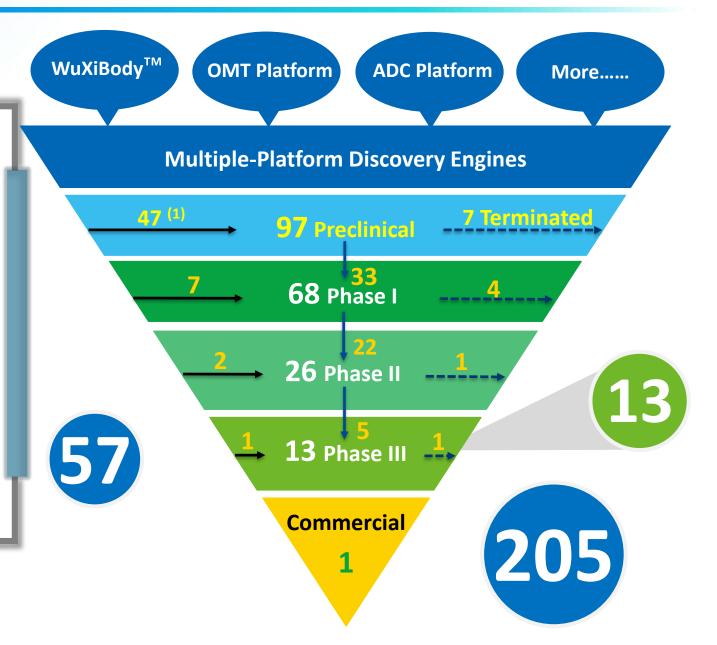
1. Integrated projects are projects that require us to provide services across different stages of the biologics development process

2. Estimated value when a biologic drug reaches peak sales. A biologic drug typically reaches peak sales after a ramp-up period

## **2018 Pipeline Highlights**

WuXi Biologics

- "Follow-the- Molecule" strategy in full motion
- Added 57 molecules into the pipeline in 2018, total 205 in development and manufacturing
- 10 molecules transferred from competitors including 1 phase III
- US\$30 million milestone
   revenue in 2018



1. All of the project No. were compared to 2017 Q4

Note:

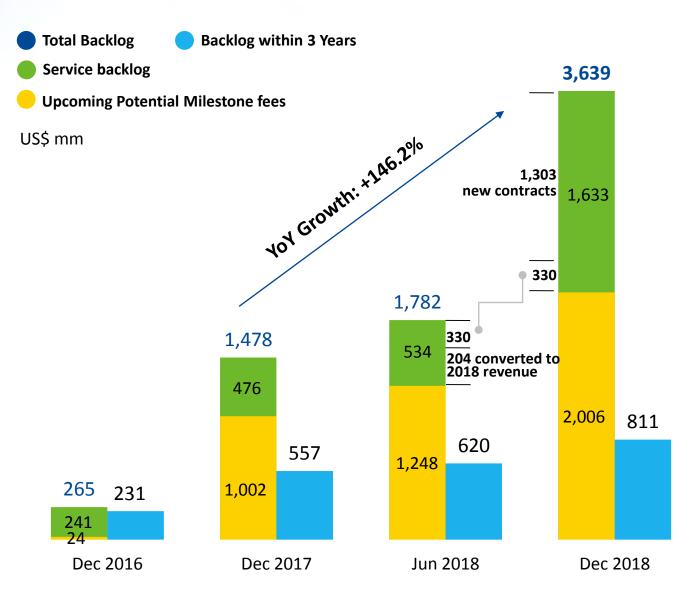
2. The arrows in black are the projects newly added from outside; the arrows in blue are the projects progressing from earlier stage thanks to our Follow-the-molecule strategy; the dashed arrows are terminated projects.

## **Phenomenal Backlog Growth in 2018**



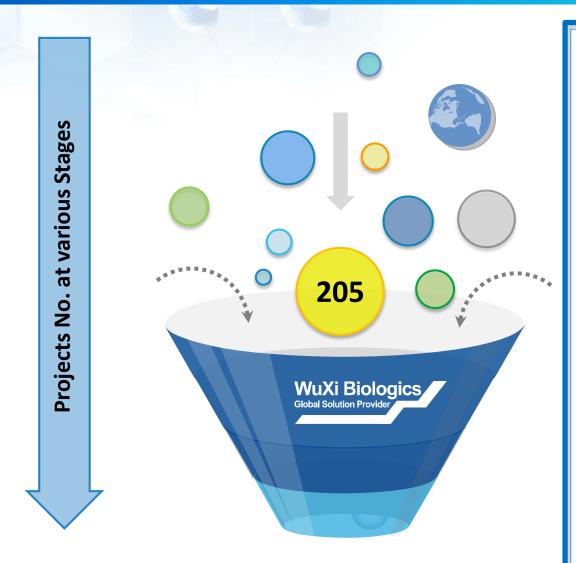
- Total backlog surged to US\$3.6 bn and boosted by newly signed manufacturing and WuXiBody<sup>™</sup> contracts
- Service backlog increased 243.1% to US\$1.6 bn, which will ensure sustained high growth
- Upcoming potential milestone fees<sup>\*</sup> doubled to US\$2.0 bn, which will continue to improve margin profile





Disclaimer: The upcoming potential milestone fees take a longer term to charge at various development stages. The potential to realize these milestone fees is subject to the success rate of the projects and the project progress.

## **"Follow-the-Molecule"** Strategy Securing Global Clients from Early Stage and Developing Long-term Partnership



 World-class capabilities, expanding capacities, excellent track record and superb execution secured more projects globally than competitors

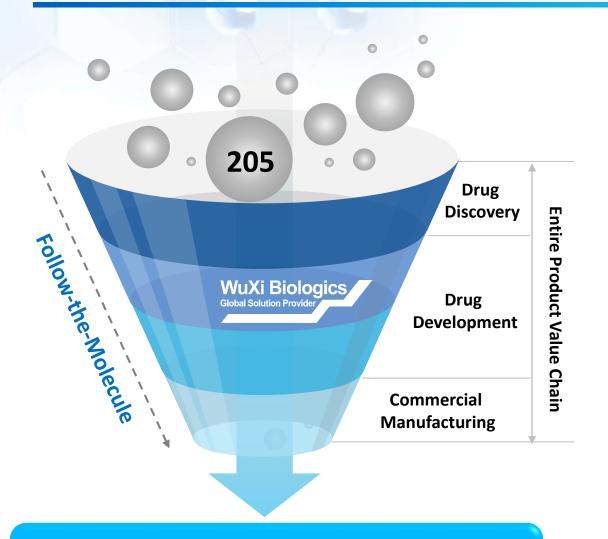
WuXi Biologics

bal Solution Provid

- Biologics projects are sticky, securing early stage projects to ensure high likelihood of continuing to commercialization – "Follow-the-Molecule"
- 205 current projects potentially lead to approx. 25 commercial manufacturing projects
- 40+ projects potentially generate US\$4 bn milestone payments<sup>\*</sup> and US\$200 mm+ royalties<sup>\*</sup> per year

## When "Follow-the-Molecule" Meets "Global Dual Sourcing within WuXi Bio"





## **Global Dual Sourcing within WuXi Bio**

- 205 current projects potentially lead to approx. 25 commercial manufacturing projects and approx. US\$2 bn revenue
- Our "on-demand global capacity planning" and "global dual sourcing within WuXi Bio" fulfill our global customers' rapid growing demand



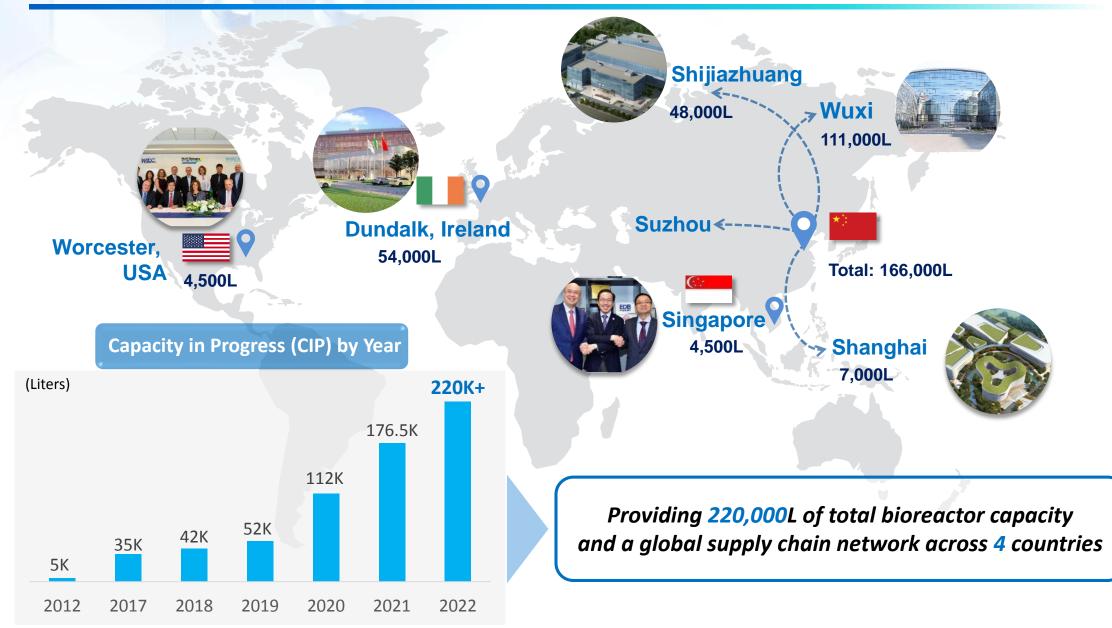
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- Exclusive Manufacturing Partnership
- Both DS and DP, each at two sites across our global network in EU, China and U.S.



## **Global Network Ensures Success of "Follow-the-Molecule"**



## "Follow-the-Molecule" Generates High ROI for MFG

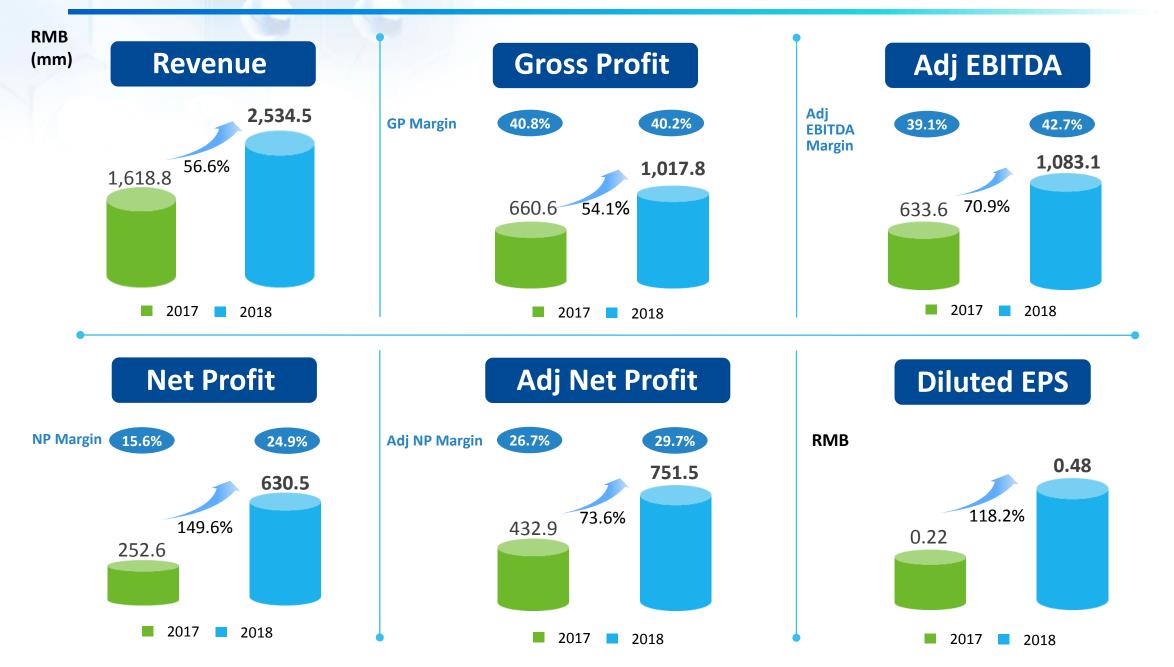


MFG1	MFG2		MFG3		MFG4		
First Disposable GMP Ready in 2012	Large Scale Dis GMP Ready i	-		1 <sup>st</sup> 4000L Disposable Bioreactor GMP Ready in 2019			
Fed-batch: 1x1,000 L 2x2,000 L Perfusion: 2x200 L Drug product fill & finish	Perfusion: 2x1,000 L			Fed-batch: 1x200 L, 1x1,000 L 2x2,000 L Perfusion: 1x500 L 1x1,000 L		Fed-batch: 1x4,000 L 2x2,000 L 2x1,000 L	
	MFG1	MF	G2	MFG3		MFG4	
CAPEX (US\$ mm)	70	150		70		50	
Peak Revenue (US\$ mm)	90	200		100		70	
Ramp-up Speed (% of peak revenue)	/	1 <sup>st</sup> year ~30% 2 <sup>nd</sup> year Target 60%		1 <sup>st</sup> year (6 month) ~20% 2 <sup>nd</sup> year Target 70%		1 <sup>st</sup> year (6 month) Target 40%	

## **Financial Highlights: Record Revenue and Earnings Growth**



14



## **Key Financials**

01

02

03



Cash on Hand: RMB4,084 mm

As of December 31, 2018, bank balances and cash amounted to RMB4,084 million in total

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## No Borrowing and Strong Operating Cash Flow

- No outstanding borrowings as of December 31, 2018
- Operating cash flow of RMB761.6 million, increased 114% over 2017

## RMB1.8 bn CAPEX in 2018 and Approximately RMB4.4 bn in 2019

- Total CAPEX in 2018 amounted to RMB1.8 billion, and CAPEX in 2019 will be approximately RMB4.4 billion
- Rapid CAPEX increase for facility expansion globally to support our revenue growth

## **Operational Highlights**





- Completed EMA pre-approval inspection in Feb. 2019
- The first biologics biomanufacturing facility with approval from both U.S. FDA and EMA in China
- Enabling customer's products to the market at the right time
- Well positioned as a global biomanufacturing leader



Technology Innovation R&D Investment +127.2%

- Continued to invest in R&D and generate additional milestone and royalty fees
- Shortest IND filing to 7 months, setting a record and creating a competitive advantage over the industry standards
- WuXiBody<sup>™</sup>, WuXia and WuXiUP Platforms help to enable more customers and expedite product launch and reduce the cost significantly

## **Global Partners Continue to Expand**



**220** global partners including **13** of the 20 largest pharmaceutical companies in the world and

**22** of the 50 largest pharmaceutical companies in China



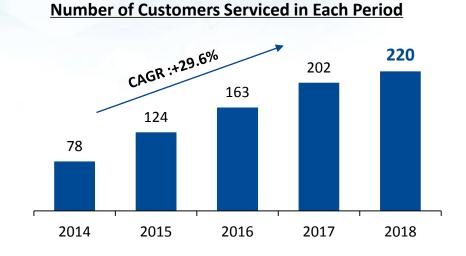
## **More Anchor and Exclusive Customers**



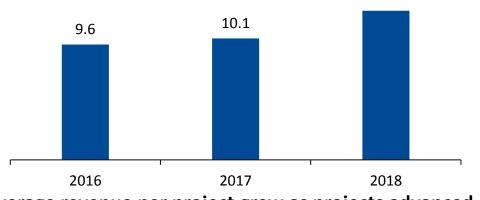


## "Follow-the-Molecule" Drives Customer Growth and Revenue Diversification

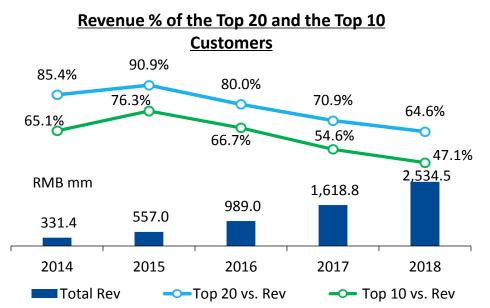




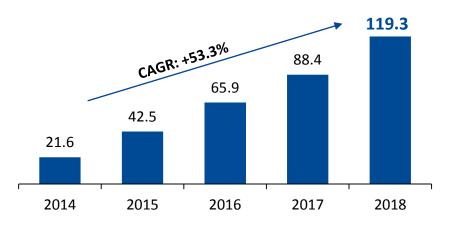
#### Average Revenue per Project (RMB mm) 12.4



Average revenue per project grew as projects advanced along the value chain



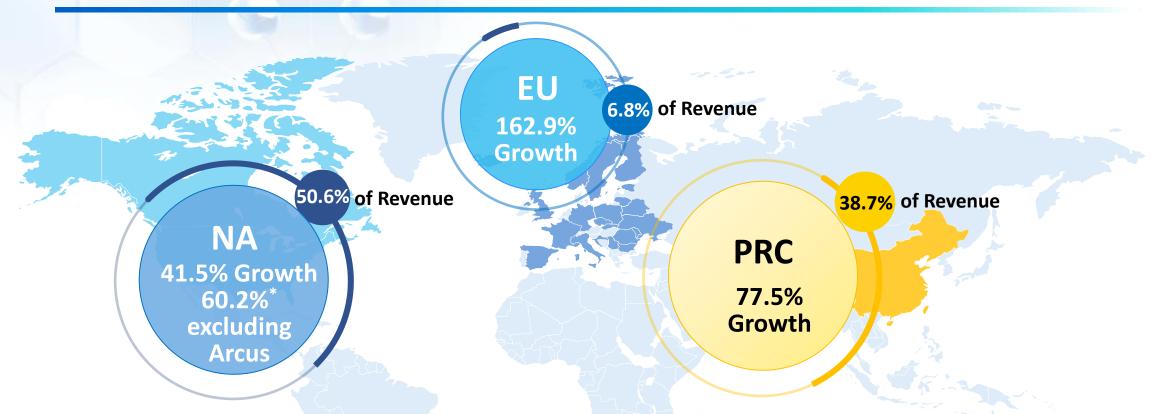
Average Revenue per Customer among the Top 10 Customers in Each Period (RMB mm)



1. Number of customers refer to those who incurred revenue during the reporting period.

## **Rapid Business Progress Across Geographic Markets**





- North America (NA), China (PRC) and EU continued sustainable strong growth: THREE growth engines
- 105.7% growth in China 2H 2018 due to regulatory reform and recent policy to change
- Growth in North America would be 60.2% excluding Arcus, US\$18.5 mm one-time payment in 2017
- Phenomenal growth in EU especially Switzerland (6 companies with 13 projects ongoing)

## **Top 4 Player Globally and Dominant Leader in China**



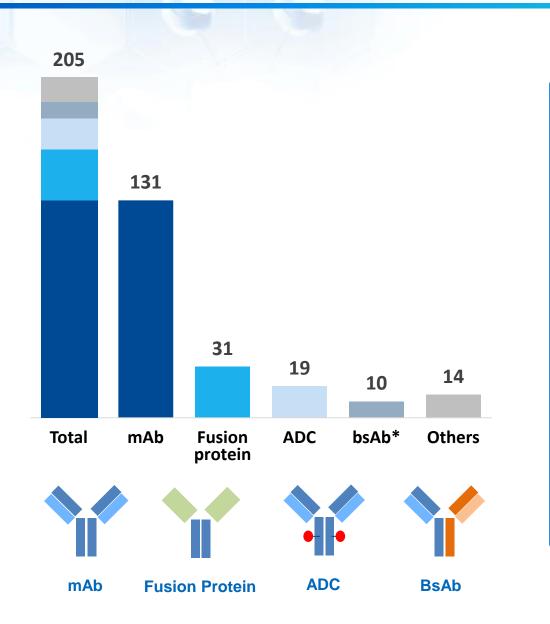
#### Market Share of Global Biologics Outsourcing Market Market Share of China Biologics Outsourcing Market by Revenue in 2018<sup>(1)</sup> by Revenue in 2018<sup>(1)</sup> Others 7.8% **BI Biologics** JHL Biotech 7.4% 1.6% BI **Biopharmaceuticals** Lonza Samsung Biologics 2.9% 11.0% 4.9% GenScript. 3.3% **WuXi Biologics** Chempartner\_ 8.8% 3.2% Others 75.6% Catalent 67.7% 2.5% WuXi Biologics CMC Biologics Global Solution Provide 1.8% Patheon 1.4%

## **Continued to expand market share:**

- Global market share increased from 1.0% in 2015, 1.8% in 2016, 2.4% in 2017 to 3.2% in 2018
- China market share increased from 36.4% in 2015, 48.0% in 2016, 63.5% in 2017 to 75.6% in 2018

## **Rich Pipeline Across all Biologics Formats**

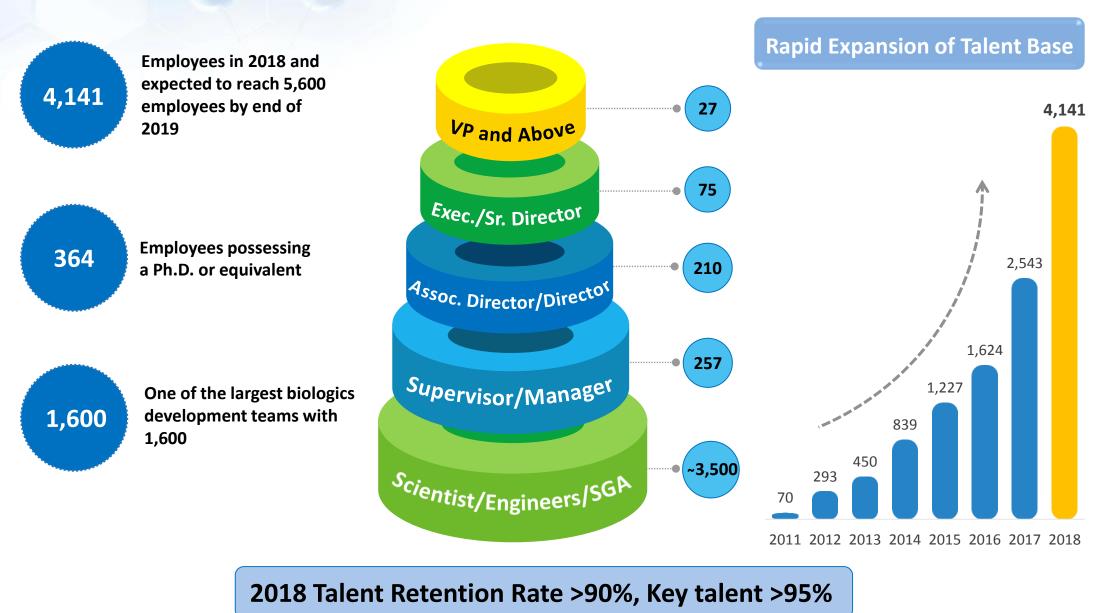




- **51** First-in-class programs
- One of the largest portfolios of complex proteins such as Bispecifics, Antibody Drug Conjugates (ADCs), and fusion proteins
- All demonstrating globally leading technical capabilities

Note: Bispecific Antibody (bsAb)

## **Impressive Talent Growth Forms the Basis for Business Success**



WuXi Biologics Global Solution Provider

## **Recent Progress**



### WuXiBody<sup>™</sup> Platform

- A new growth driver, reached agreements with 7 partners since launch in Aug 2018
- Expect to add 10 projects in 2019 and 20 projects in 2020
- First cGMP biologics DS, DP and cell banking facilities in China to be approved for commercial manufacturing
- World-class quality system recognized again

### **EMA Inspection Successful**

### **Dual Sourcing within WuXi Bio**

- Exclusive manufacturing partnership with Amicus
- First success of the "Follow-the-Molecule" strategy from development to BLA
- Dual sourcing across our global network

Recent policies in China have driven more companies to partner with WuXi for innovation: China revenue growth of 77.5% in

2018 (44.9% in 1H 2018 vs 105.7% in 2H 2018)

### **Chinese Market Accelerated**



# **II. Technology Leadership**



## **State-of-the-Art Technology Differentiates WuXi Biologics**

#### WuXiBody™ Bispecific Platform

- Combine any two antibodies and assemble into bispecifics
- Easy to express, no aggregation or mispairing, can be developed 6-18 months faster and much lower COGS than competitor platforms
- Support 50+ projects per year which attracts downstream services

#### WuXia Cell Line Platform

- Our own proprietary cell line paired with our own proprietary algorithm is more cost-effective, more efficient and yields better results
- License know-how generated during cell line engineering and development process to the customer in exchange for a license fee and future royalty payments
- Developed 220 cell lines total for therapeutic protein purpose

#### 2 Transgenic Animal For mAbs Discovery

- Access to OMT's state-of-the-art transgenic animal technology to develop fully human antibodies with high quality, specificity, expression, solubility and stability
- Proven technology platform used by 20+ other global companies
- Support 50+ projects per year with potential downstream services

#### **5** Disposable Manufacturing Technology

- No cleaning and sterilization required for disposable bioreactors that use pre-radiated plastic bags as the production vessel in a stainless holder
- A facility using disposable bioreactors can be built 12 to 18 months faster with 30% to 50% less investment, and can produce 5% to 15% more batches of products with a higher success rate compared to traditional stainless steel bioreactors

#### Antibody Drug Conjugate Discovery

3

- Integrate our in-house antibody discovery, toxin and linker to deliver the ideal lead ADC molecules
- Greatly simplify ADC drug development by providing a one-stop shop
- 30 ongoing projects with ADC discovery services with potential downstream service

#### 6 WuXiUP continuous manufacturing platform

- The next generation biologic manufacturing solution to accelerate biologics development and manufacturing as well as to improve the affordability of biologics
- 30-50g/L titer, 10+x
- Enabling 1,000L disposable bioreactors to comparable productivity as traditional SS tank through WuXiUP

## **High-Impact Innovation to Enable Customers' Success**



#### WuXiBody<sup>™</sup> Bispecific Platform

- Universal
- 6-18 months of timesaving
- No CMC issue
- More strategic partnerships with customers

(WuXiBod) Platform

A new era in bispecifics

## WuXia Cell Line

- Robust cell line with proven track record
- Enabling 60 Integrated Projects Per Year
  - 20+ ongoing clinical projects in U.S., EU and China

**WuXia** 

#### WuXiUP Continuous Manufacturing Platform

- 30-50g/L titer, 10+x
- Achieving ultra-high productivity
- Enabling 2,000L disposable bioreactors to comparable productivity as 20,000L traditional SS tank



Discovery

Development

Manufacturing

Innovation of next growth cycle in biologics

## Leading Edge Technology of WuXiBody<sup>™</sup>



## DIFFERENTIATION

- Universal: almost any mAb sequence can be used to build bispecifics
   Flexibility: bi/tri/tetra
- valency based on biology

## QUALITY

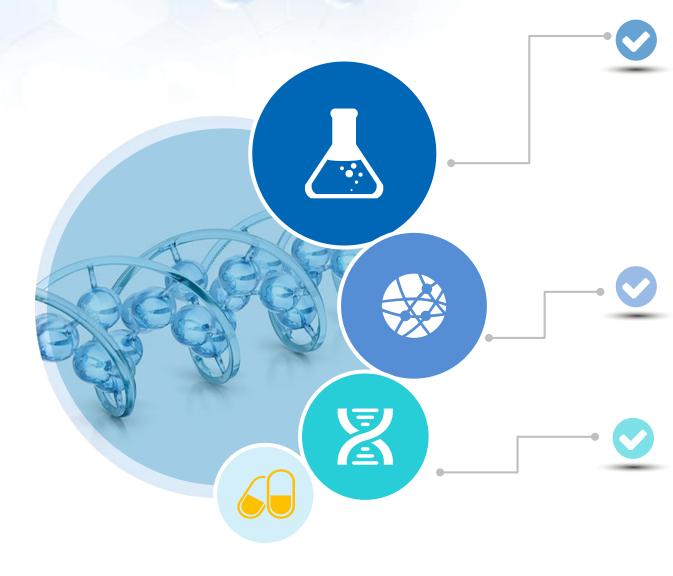
- Expected low immunogenicity: natural sequence without complicated engineering
- Typical in vivo half-life, longer than typical bispecifics

## SPEED

No CMC challenges: no expression, aggregation or purification challenges – Save 6-18 months of development time



## WuXiUP to Expedite Product Launch and Reduce Manufacturing Cost



### **Comparable to Traditional bioreactors**

Enable 2,000L disposable bioreactors to achieve comparable productivity as traditional 20,000L stainless bioreactors, significantly reduce the manufacturing cost

## **High Purification Yield**

Achieve ultra-high productivity while enabling similar purification yield of the traditional purification process

## Scale-up to GMP

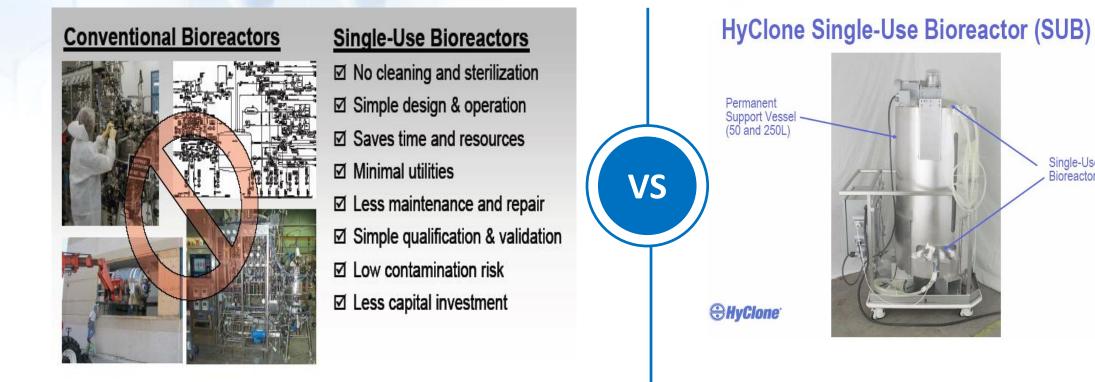
The technology is being scaled up to GMP production and will be deployed throughout our global manufacturing network

## **Global Leader in Biomanufacturing Using Disposable Bioreactors**



Single-Use

**Bioreactor BPC** 



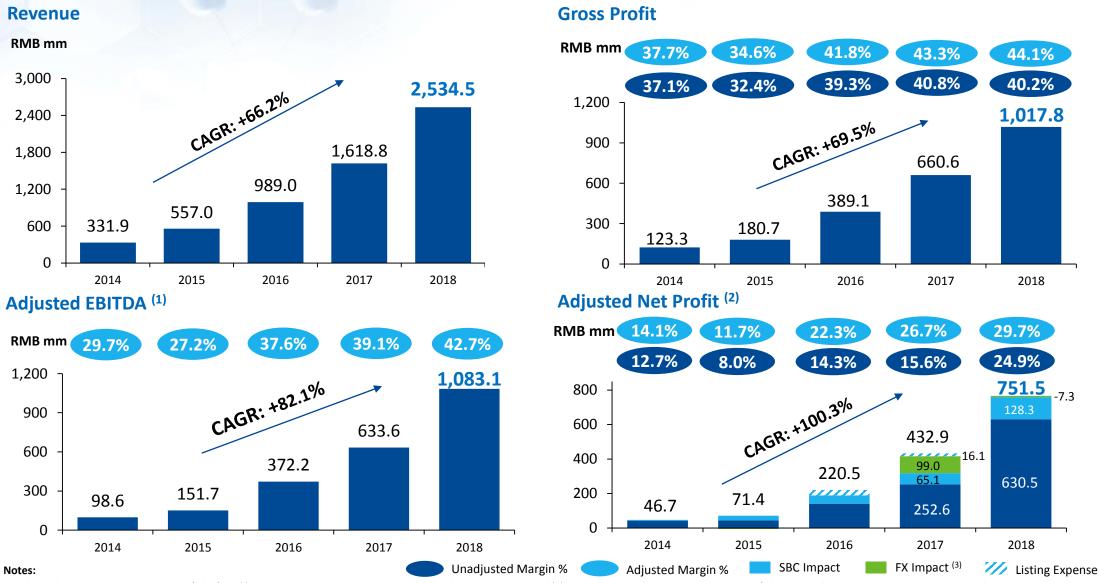
- **No** stainless steel bioreactors, 11 facilities and largest users of disposables bioreactors
- 500+ batches manufactured at 98% success rate •
- Comparable COGS with 10,000+L with Scale-out strategy •
- Less CAPEX, faster in building facilities and comparable COGS •



## **III. Financial Overview**



## **Excellent Financial Performance**



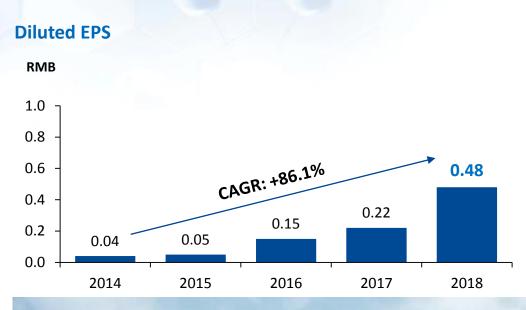
1. Adjusted EBITDA represents net profit before (i) interest expenses, income tax expenses, listing expenses and (ii) certain non-cash expenses, consisting of share-based compensation, amortization and depreciation and (iii) foreign exchange (gains)/losses

2. Adjusted net profit excludes the share-based compensation expenses, Listing expenses and foreign exchange (gains)/losses

3. Refers to foreign exchange (gains)/losses



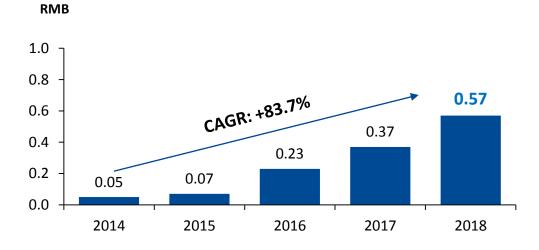
## **Excellent Financial Performance (Con'd)**





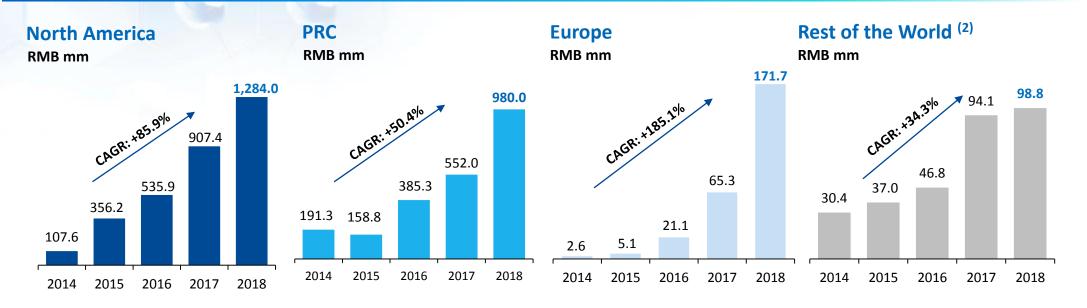


#### **Adjusted Diluted EPS**

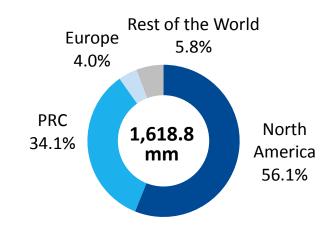


## **Robust Growth Across All Geographic Markets**<sup>(1)</sup>

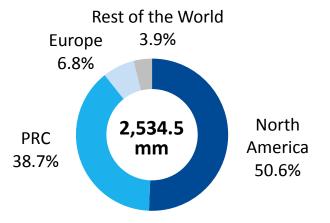




2017 Revenue (RMB)



#### 2018 Revenue (RMB)



#### Notes:

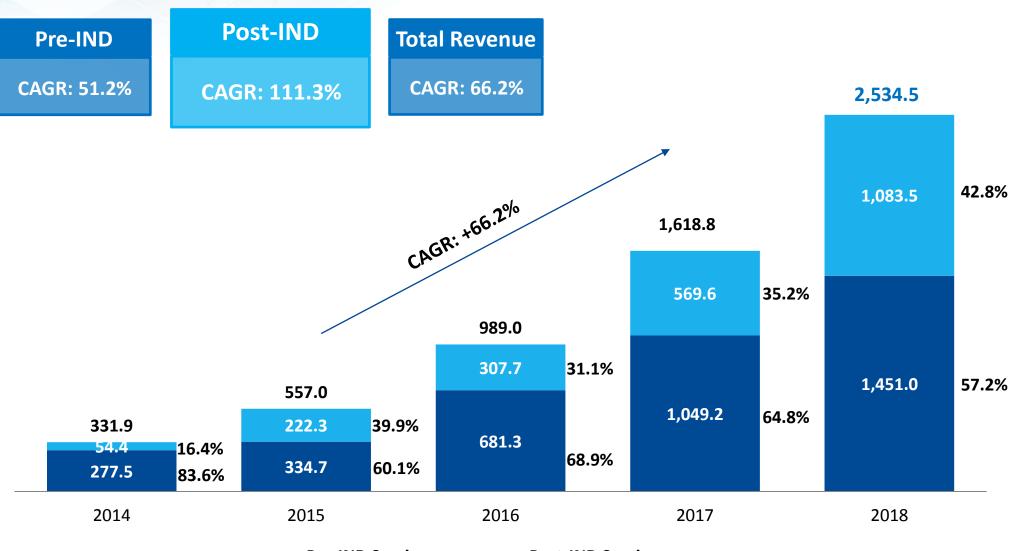
1. Geographic breakdown by client headquarters

2. Rest of the world primarily includes Israel, Japan, India, South Korea



## **Post-IND Revenue Increase Indicates Success of Strategy**

(RMB mm)

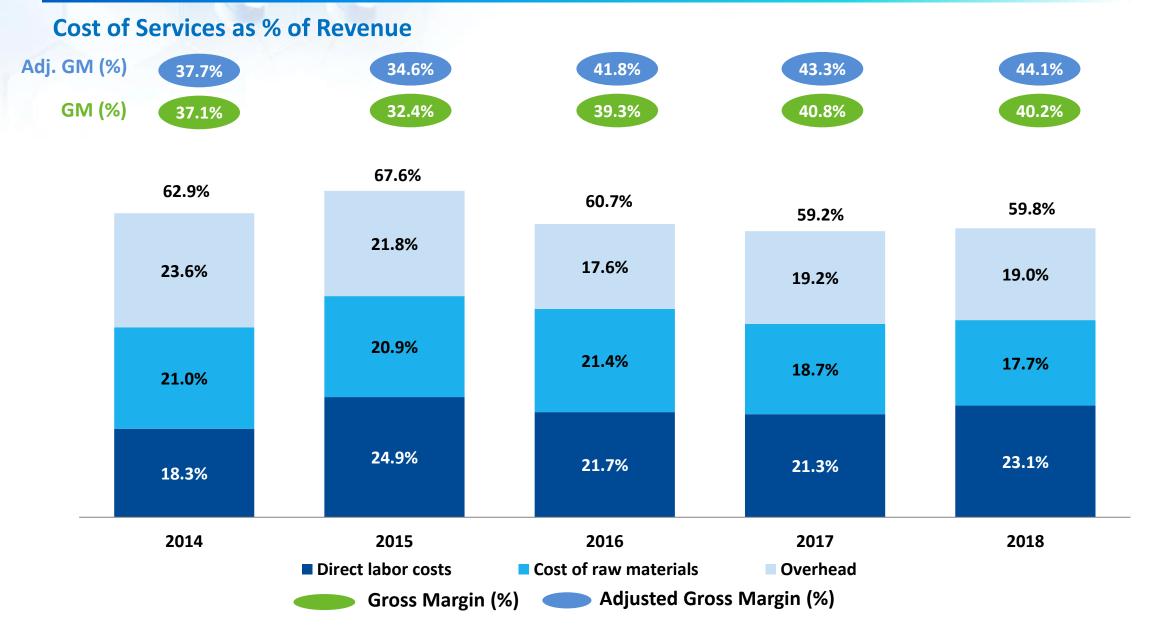


Pre-IND Services

Post-IND Services

## **Steady Increase of Gross Margin Despite New Facilities**





Notes:

1. Adjusted gross margin excludes the share-based compensation expenses



# IV. Summary

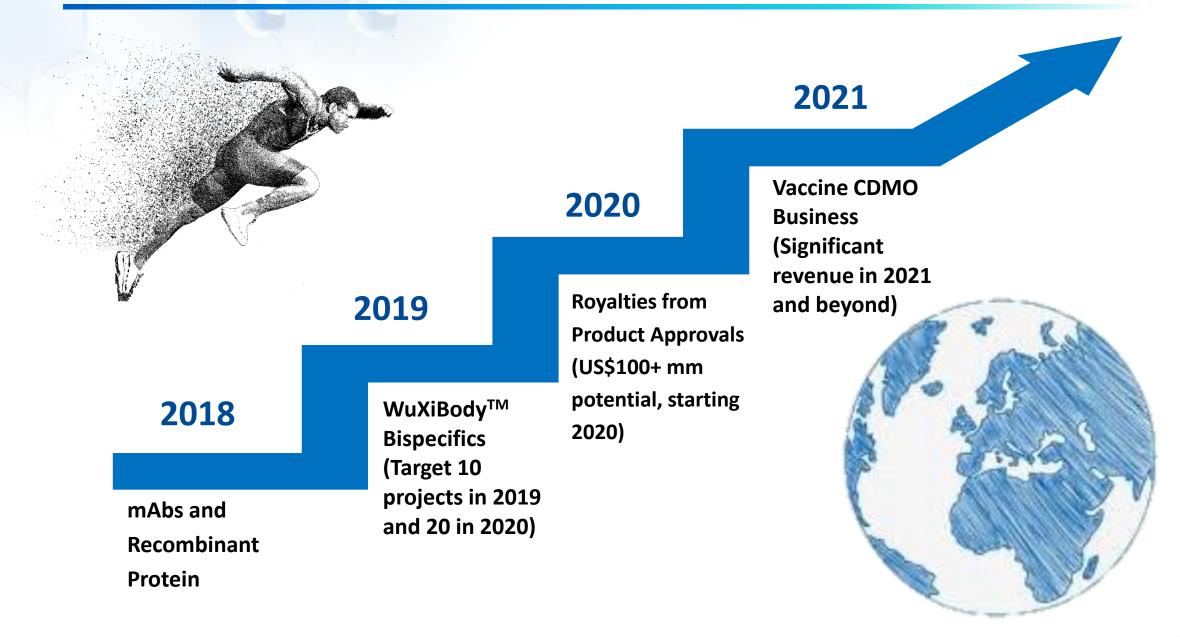
## **Continuing to Gain Market Share**



Cutting Edge Technology	<ul> <li>WuXiBody<sup>™</sup> bispecific (universal, 6-18 months of WuXia cell line (robust cell line with proven track r</li> <li>WuXiUP continuous manufacturing platform (30-5</li> </ul>	record)
Best Timeline	<ul> <li>IND Filing Timeline</li> <li>Industry average: 18-24 months</li> <li>WuXi average: 15 months</li> <li>WuXi record: From 9 months to 7 months</li> </ul>	
Excellent Track Record	<ul> <li>100% projects delivered</li> <li>No customer transfer out</li> <li>Excellent customer satisfaction and high recognition</li> </ul>	n
Unparalleled Capacity	<ul> <li>60 INDs and 5 BLAs per year</li> <li>Largest scientist team in the world: 1,600</li> <li>Largest capacity using single-use bioreactor: 220,000</li> </ul>	0 L by 2022

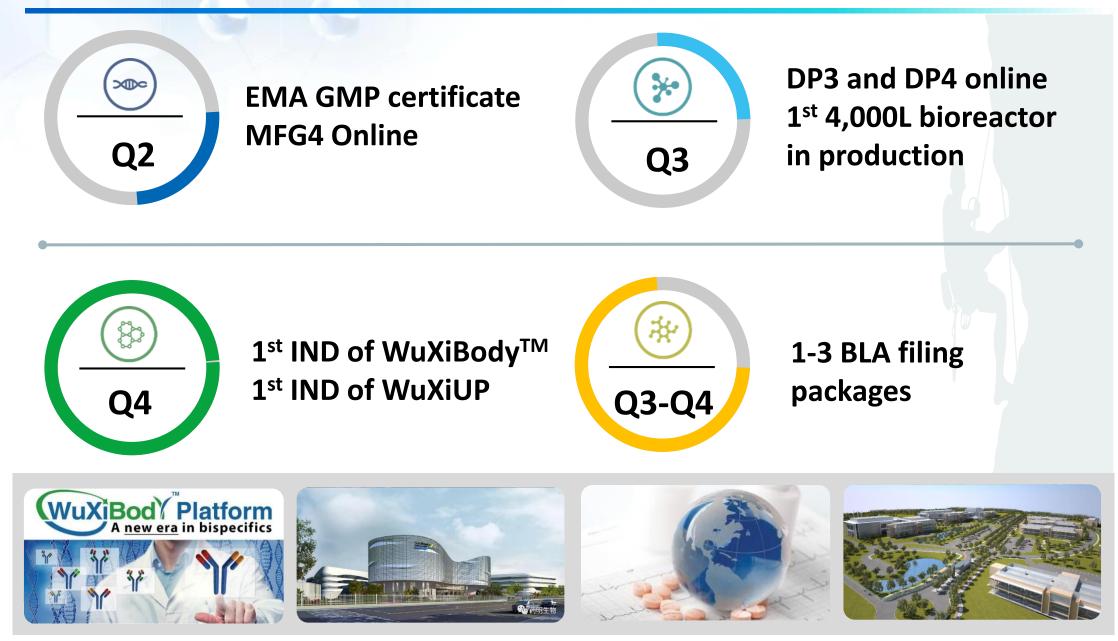
## **Multiple Growth Engines to Support Sustainable High Growth**





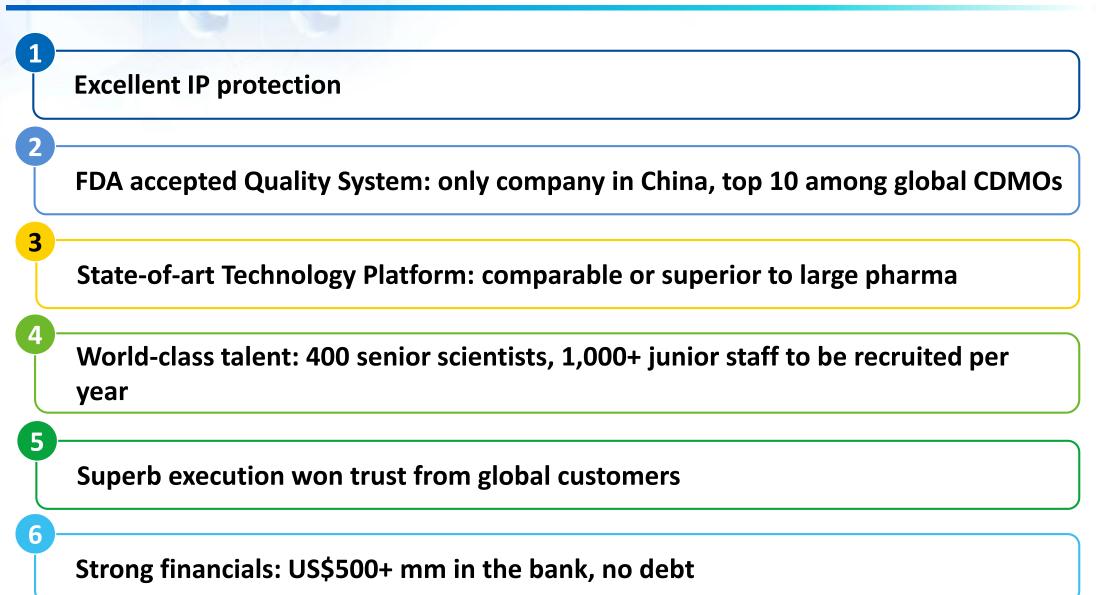
## **2019 Key Milestones and Catalysts**





## Six Unbreachable "Moats" of WuXi Biologics





## **Summary**





"Follow-the-Molecule" plus "Global Dual Sourcing within WuXi Bio" are transforming the bio industry Strong technical leadership, expanding capacities, good track record and premier quality allowed us to continue to gain market share globally and in China

3

5

NA, EU and China all show strong growth with phenomenal growth in China and EU despite uncertainties



2

Continue to attract and retain talents and expand globally

Strong momentum on WuXiBody, WuXia Cell line and WuXiUP will continue to drive sustainable high growth



Continue to build capacities: any project can start within 4 weeks



# Appendix – Financial Summary



## **2018 Financial Summary**

(RMB million)	2018	2017	Change
Revenue	2,534.5	1,618.8	56.6%
Cost of Services	(1,516.7)	(958.3)	
Gross Profit	1,017.8	660.6	54.1%
Other Income	194.2	34.7	
Including Interest Income	78.4	8.7	
Other Gains and Losses	21.1	(89.9)	
Impairment losses, net of reversal	(55.9)	(13.7)	
Selling and Marketing Expenses	(42.4)	(27.6)	
Administrative Expenses	(227.7)	(134.0)	
Research and Development Expenses	(169.3)	(74.5)	
Other Expenses	-	(16.1)	
Financial Cost	-	(35.7)	
Profit before Tax	737.7	303.7	142.9%
Income Tax Expenses	(107.3)	(51.1)	
Profit for the Year	630.5	252.6	149.6%
Earnings per share – Basic (RMB)	0.52	0.24	
Earnings per share – Diluted (RMB)	0.48	0.22	

## **Reconciliation for Adjusted Net Profit and Adjusted EBITDA**



(RMB million)	2018	2017	Change
Adjusted Net Profit Reconciliation			
Net Profit	630.5	252.6	
Share-based Compensation	128.3	65.1	
Listing Expenses	-	16.1	
Foreign Exchange Loss/(Gain)	(7.3)	99.0	
Adjusted Net Profit	751.5	432.9	73.6%
Adjusted EBITDA Reconciliation			

EBITDA	962.1	453.4	
Share-based Compensation	128.3	65.1	
Listing Expenses	-	16.1	
Foreign Exchange Loss/(Gain)	(7.3)	99.0	
Adjusted EBITDA	1,083.1	633.6	70.9%

www.wuxibiologics.com.cn

## Thanks wang\_yue0502@wuxiapptec.com



