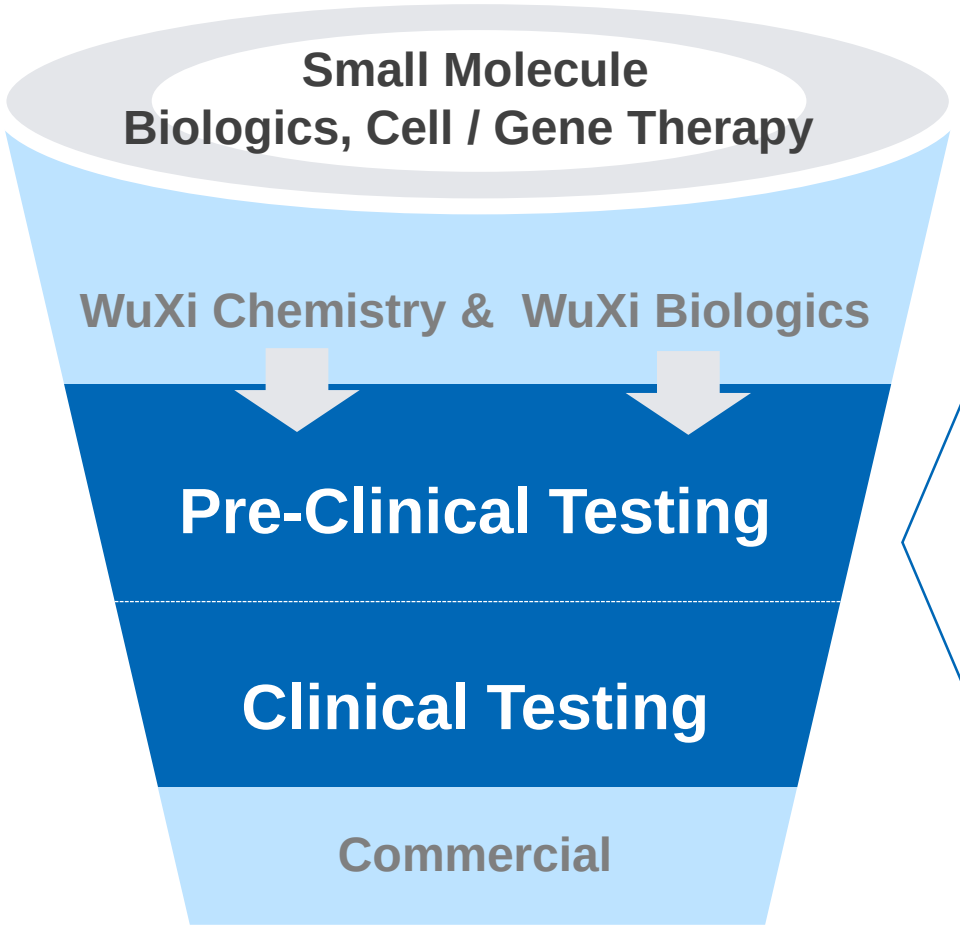
WuXi Testing:
End-to-End Testing Platform

Dr. Steve Yang
Co-CEO

药明康德
WuXi AppTec

WuXi Testing: C“T”DMO Platform for All Modalities

Discovery → Pre-Clinical → Clinical



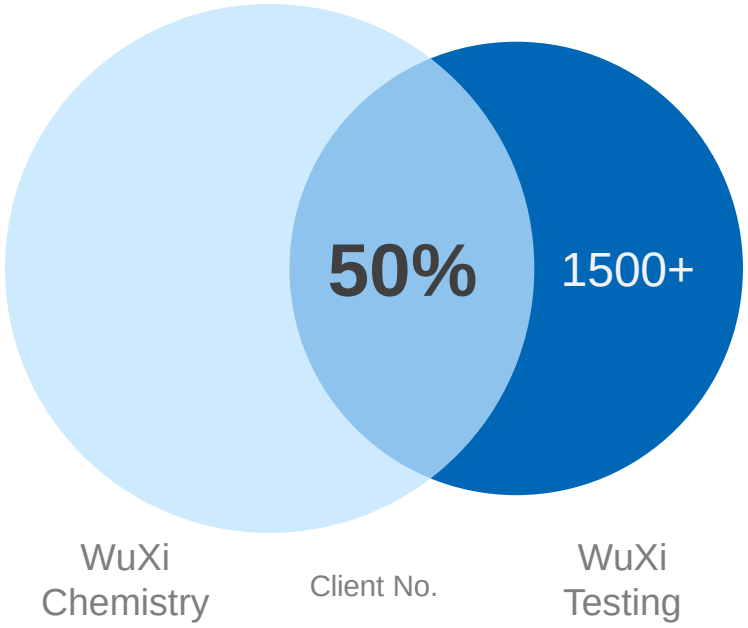
WuXi Testing

- WIND
- DMPK
- Toxicology
- Bioanalysis
- Medical Device Testing
- Clinical CRO
- Clinical SMO

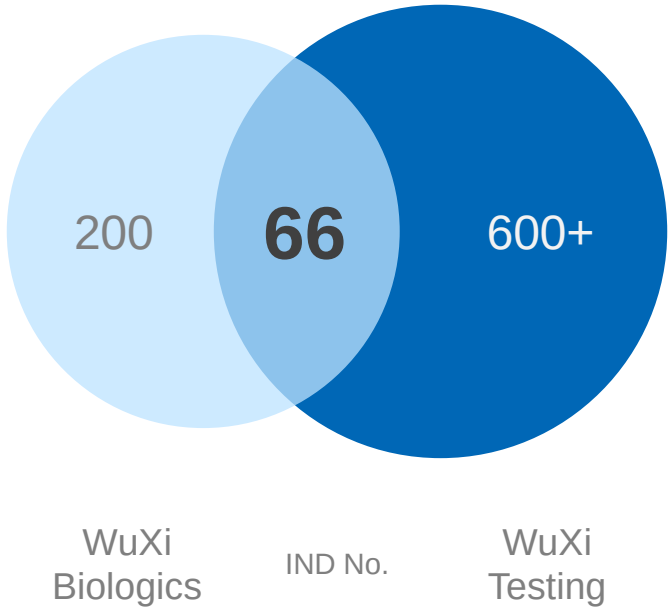
药明康德 WuXi AppTec

Strong Synergy with WuXi Chemistry and WuXi Biologics

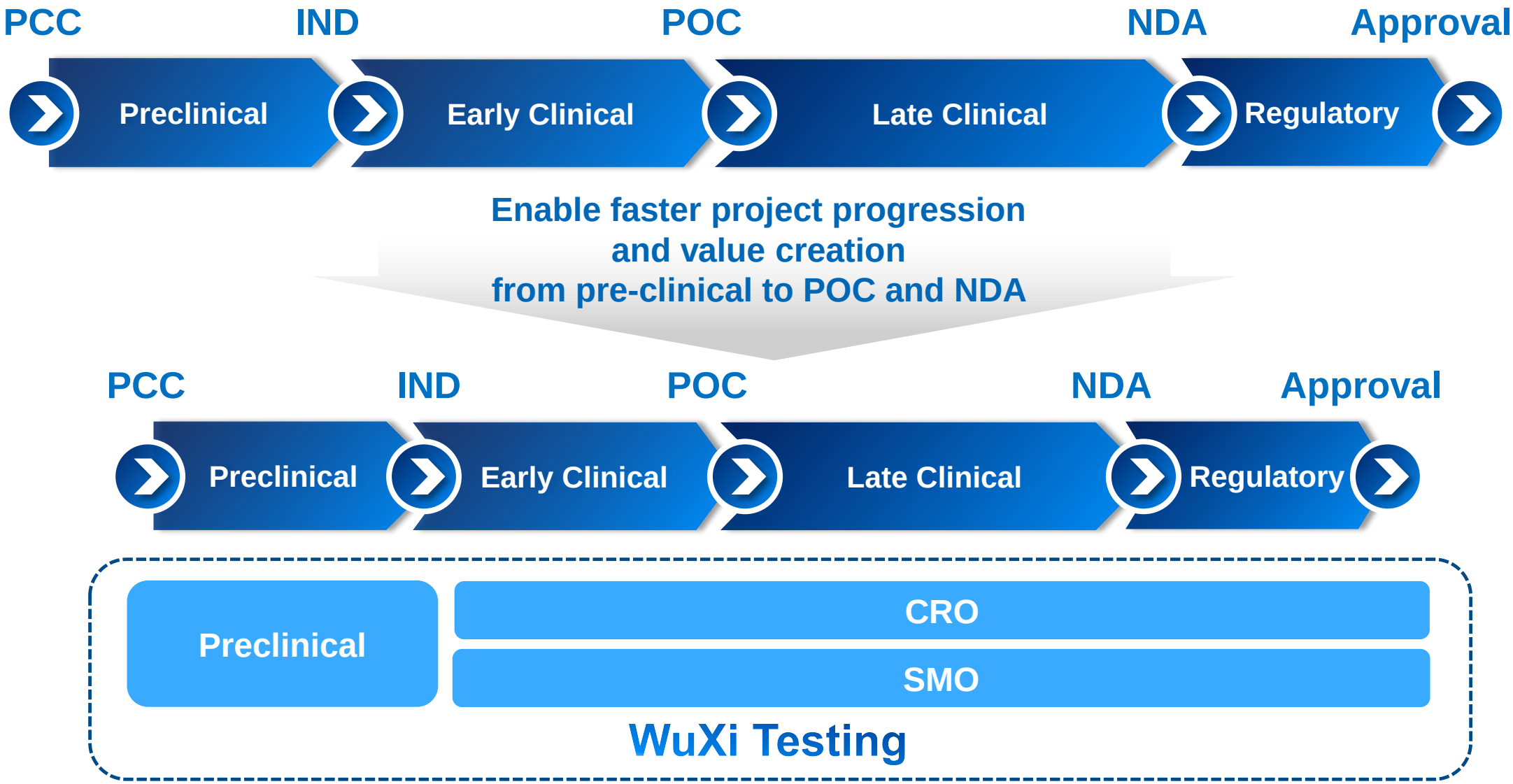
Client Number Overlap between WuXi Chemistry and WuXi Testing



IND Number Overlap between WuXi Biologics and WuXi Testing



WuXi Testing: Enable Faster Value Creation for Customers



WuXi Testing: Leadership Team

Steve Yang
Co-CEO
Head of WuXi Testing

Xu Hui
VP, Head of Operation & Domestic BD

Jin Yi
VP, Head of PM & RA
Chief Scientific Toxicologist

Bill Harrison
VP, Head of Toxicology

Shen Liang
VP, Head of DMPK

Shi Jing
VP, Head of Bioanalytical Service

Ed Amat
VP, Head of Int'l BD

LAN LI
VP, Head of CL

Johnathan Lee
VP, Head of WuXi Clinical

Reako Ren
VP, Head of SMO

Michael Hui
VP, Head of QA

Mike McGrew
VP, Head of Medical Device

药明康德 WuXi AppTec

A Strong Network of Testing Facilities in China and US

China

Shanghai

Suzhou

Nanjing

Chengdu

Nantong

United States

St. Paul

Atlanta

Plainsboro

Cranbury

Pre-Clinical Platform: The Largest in Asia Pacific

>> 2021 In Use

110,000
m², Lab Space

450
#, Animal Rooms

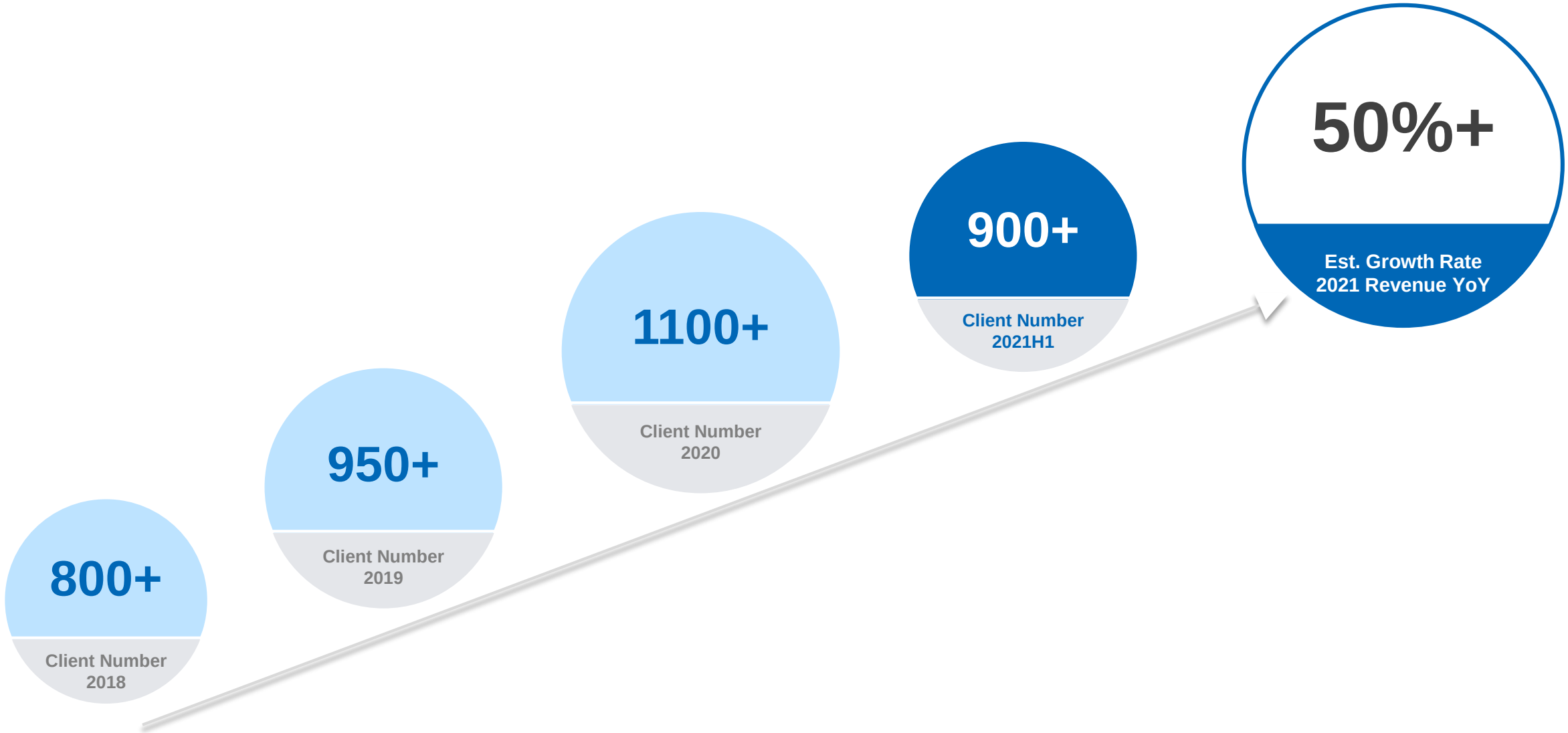
165,000
m², Lab Space

750
#, Animal Rooms

>> 2023

药明康德 WuXi AppTec

Pre-Clinical Platform: The Fastest Growing in Asia Pacific



Client Number of Revenue Generation

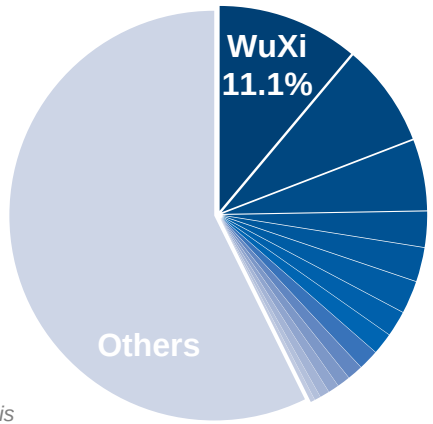
药明康德 WuXi AppTec

Pre-Clinical Platform: Growth Acceleration

Historical and Forecasted Market Size of China-based Pharmaceutical R&D Outsourcing Services, 2016-2030E

Period	Discovery	Pre-Clinical CAGR	Clinical	CGT CDMO	Small Molecule CDMO	Total
2016-2020	37.6%	**17.3%**	22.9%	31.0%	29.8%	25.7%
2020-2025E	26.9%	**20.2%**	26.0%	51.1%	28.0%	26.6%
2025E-2030E	15.7%	**14.0%**	16.5%	28.6%	17.0%	16.9%

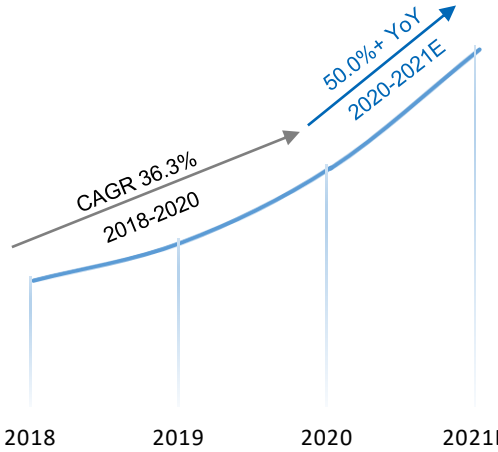
Competitive Landscape of China CRO (Pre-Clinical and Clinical) Market Players, 2020

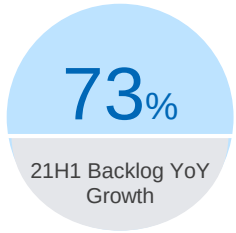


Source from Frost & Sullivan analysis

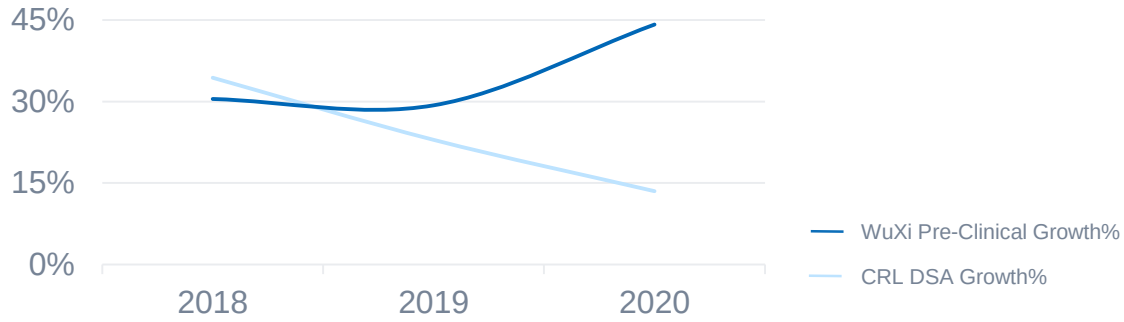
The Accelerated Growing of Pre-Clinical Testing Business

- In 2021, revenue will be 3 times as much as in 2018.





- 2018-2020 revenue kept fast growing continuously, the ratio is ~45% in 2020 especially.

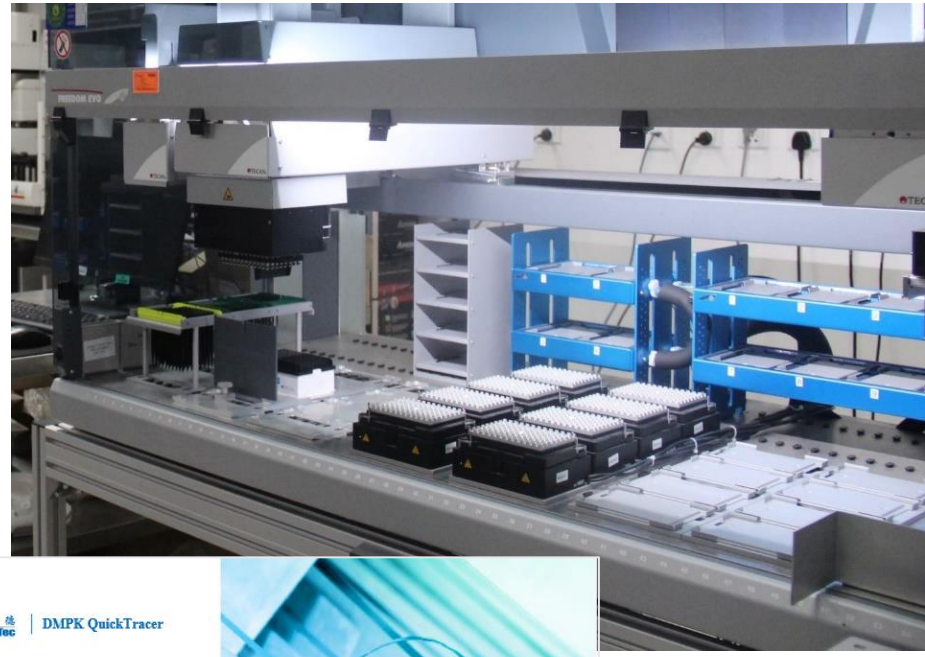


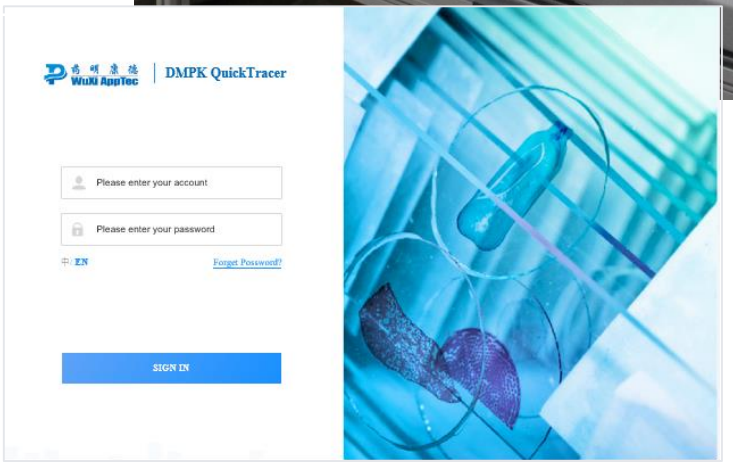
药明康德 WuXi AppTec

The Largest DMPK Platform in Asia Pacific

Discovery | **Pre-Clinical** | **Clinical**

- Growth in capacity: **30,000 m²** in use, and will expand to **50,000 m²** in 2023
- **End-to-end** and integrated DMPK platform with breadth and depth in advanced capabilities
- **Automated, digital, and intelligent** laboratory and user interface
- Seamless integration with Chemistry / Biologics and Biology
- Close collaboration with Toxicology, Formulation, CMC, and Bioanalysis





100k+
#, Annual Screening Compounds

600+
IND Enabling

1000+
Active Clients

药明康德 WuXi AppTec

The Largest Toxicology Platform in Asia Pacific

Discovery | **Pre-Clinical** | **Clinical**

- Growth in capacity: **300** animal rooms in use, and will expand to **600** animal rooms in 2023

- **End to end** safety evaluation capability from discovery to post NDA
- Experience with a wide variety of **new modalities**

- Seamless integration through **WIND** (WuXi IND)
- Close collaboration with operation for animal supply

WuXi AppTec IND

- A strong record of **global GLP compliance**
- Multiple inspections by NMPA, FDA, EMA and worldwide regulatory agencies

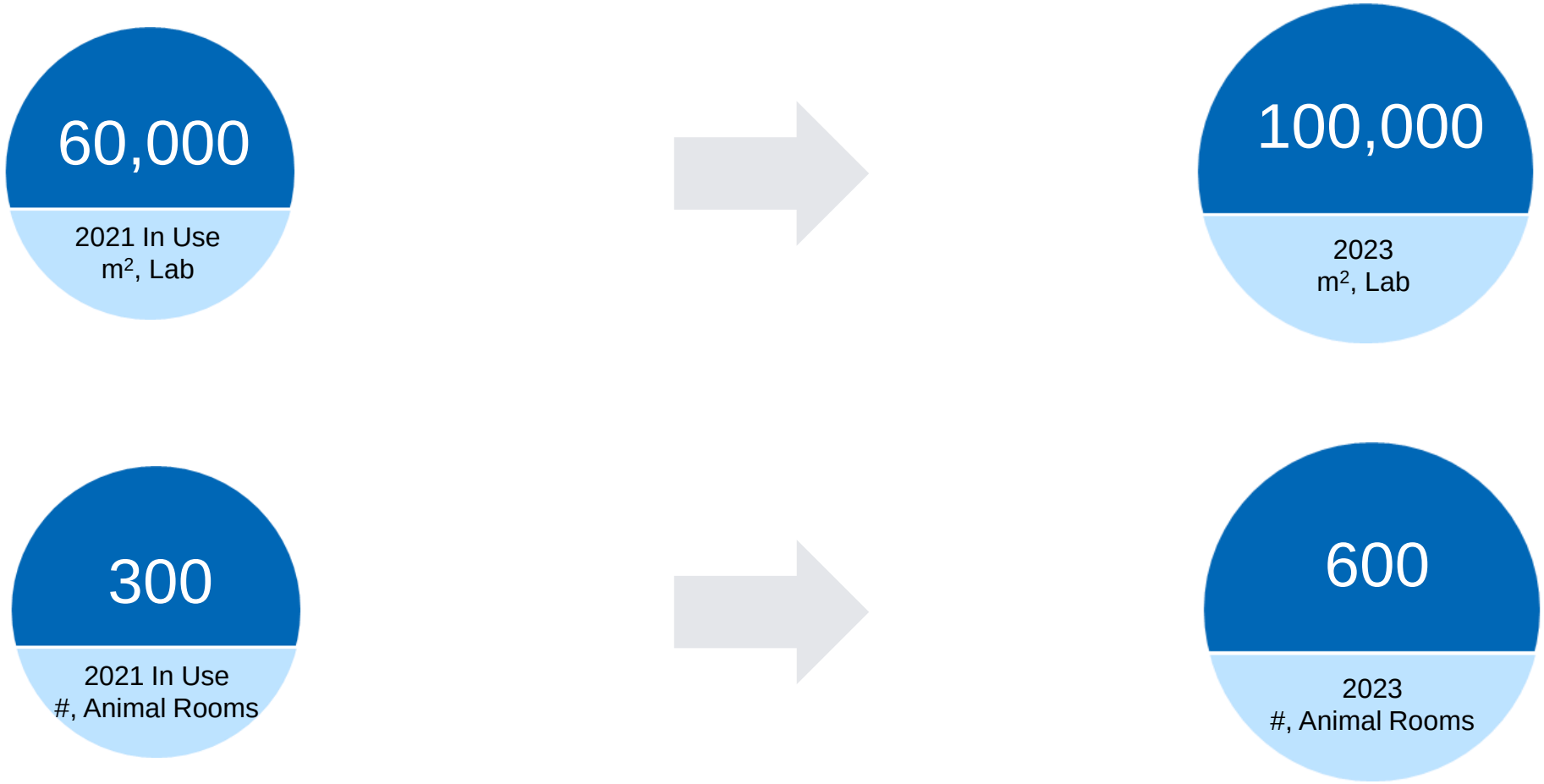
21
#, COVID-19 Projects

700+
#, On-going Projects

700+
#, IND/NDA Enabling

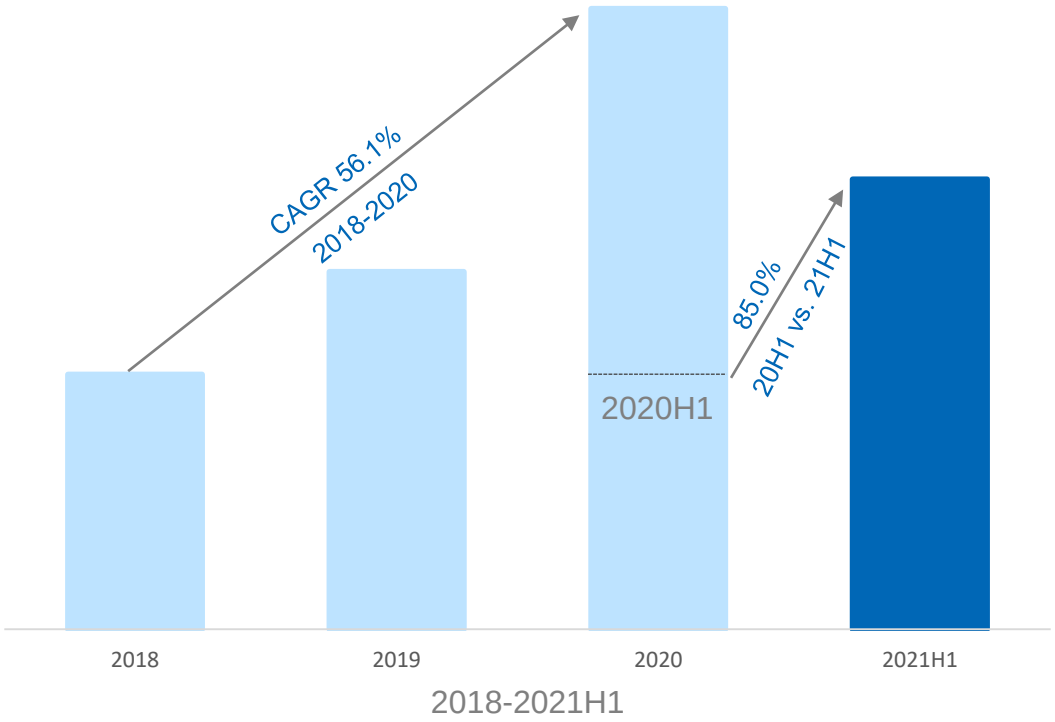
药明康德 WuXi AppTec

Investment to Build New Capacity for Toxicology



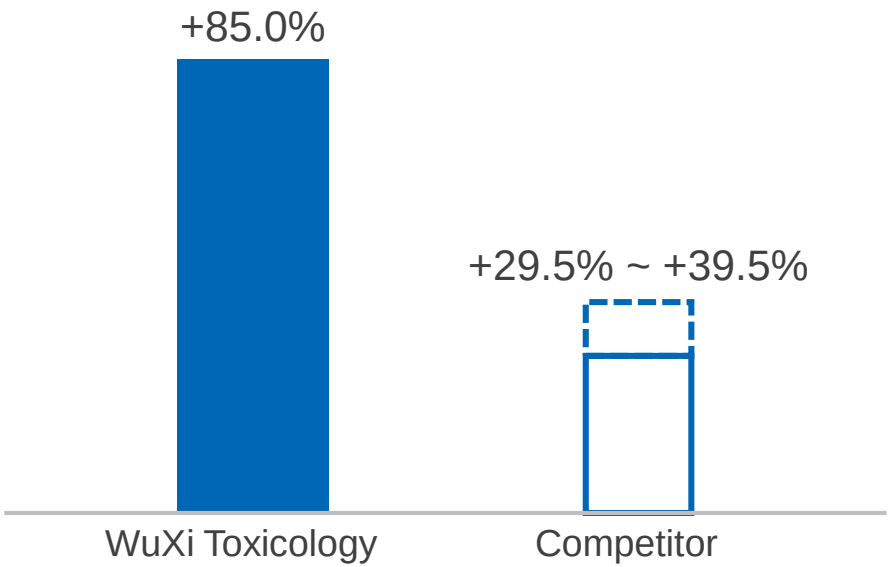
Fast Growing Toxicology Business

Toxicology Business Growth Trends



2018-2021H1

Competitive Position



Revenue Growth Rate (2020H1 vs. 2021H1)

The Largest Bioanalysis Platform in Asia Pacific

Discovery | **Pre-Clinical** | **Clinical**

- One stop solution to cover the entire drug R&D life cycle
- Leading capability in new technologies and new modalities
- A track record of supporting new drug approvals
- Close collaboration between the US and China laboratories, to support global submissions and IND, NDA/BLA Seamless integration with Clinical CRO and SMO
- A strong record of **global GLP compliance**
- Multiple inspections by NMPA, FDA, OECD,EMA,PMDA

Henlius

97
#, Drugs Approval

600+
#, Methods Developed

1st
China-made Biosimilar Approved by EMA

药明康德 WuXi AppTec

Comprehensive Testing Technology Platforms

- Real-time PCR/ddPCR
- Gene Expression/Copy number Assays
- RCL/shedding
- Gene mutation

- Cell-based neutralizing Ab assays
- Cellular immune response
- Elispot

- Immunophenotyping, TBNK, MDSC, PBMCs, T-reg
- Receptor occupancy
- Cell enumeration in support of cell therapy e.g. CAR-T
- Immune response

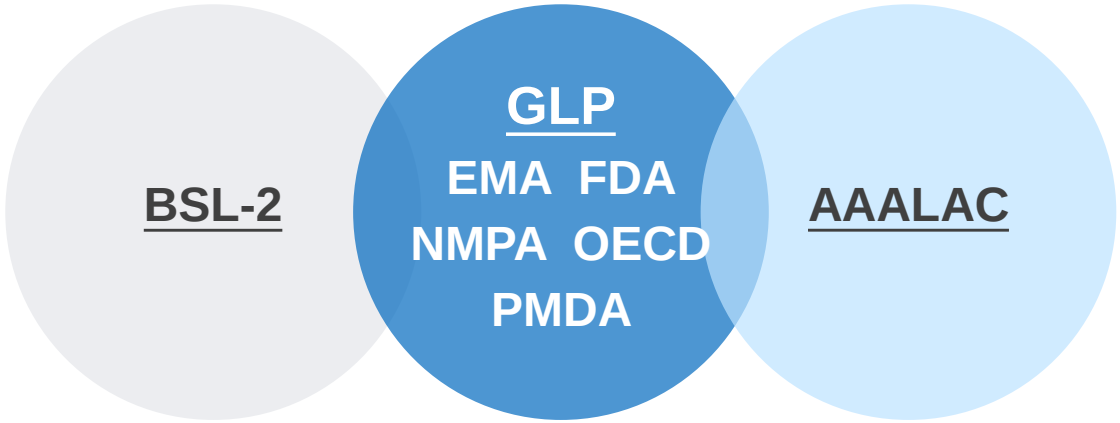
- Hemanalysis, Urinalysis
- Coagulation, Biochemistry
- Hemoglobin,
- Immunoassay e.g. HBV , Insulin and C-Peptide, Thyroid Function, Hormones

- In vitro ADME
- Drug Pharmacokinetics (PK)
- Drug Combination & ADC
- PD Biomarkers
- Drug-Drug Interaction (DDI)

- Clinical Pharmacokinetics (PK)
- Immunogenicity/ADAs/Nab
- Pharmacodynamics (PD)
- Translational Biomarkers
- Reagent manufacturing and inventory

The Highest Global Regulatory Standards

Global Regulations



China Based Facilities Certification Inspections

- **11** OECD
- **8** NMPA (CFDA) Certification
- **7** FDA
- **4** AAALAC
- **1** EMA
- **1** PMDA

aaalac INTERNATIONAL

EUROPEAN MEDICINES AGENCY
SCIENCE MEDICINES HEALTH

FDA

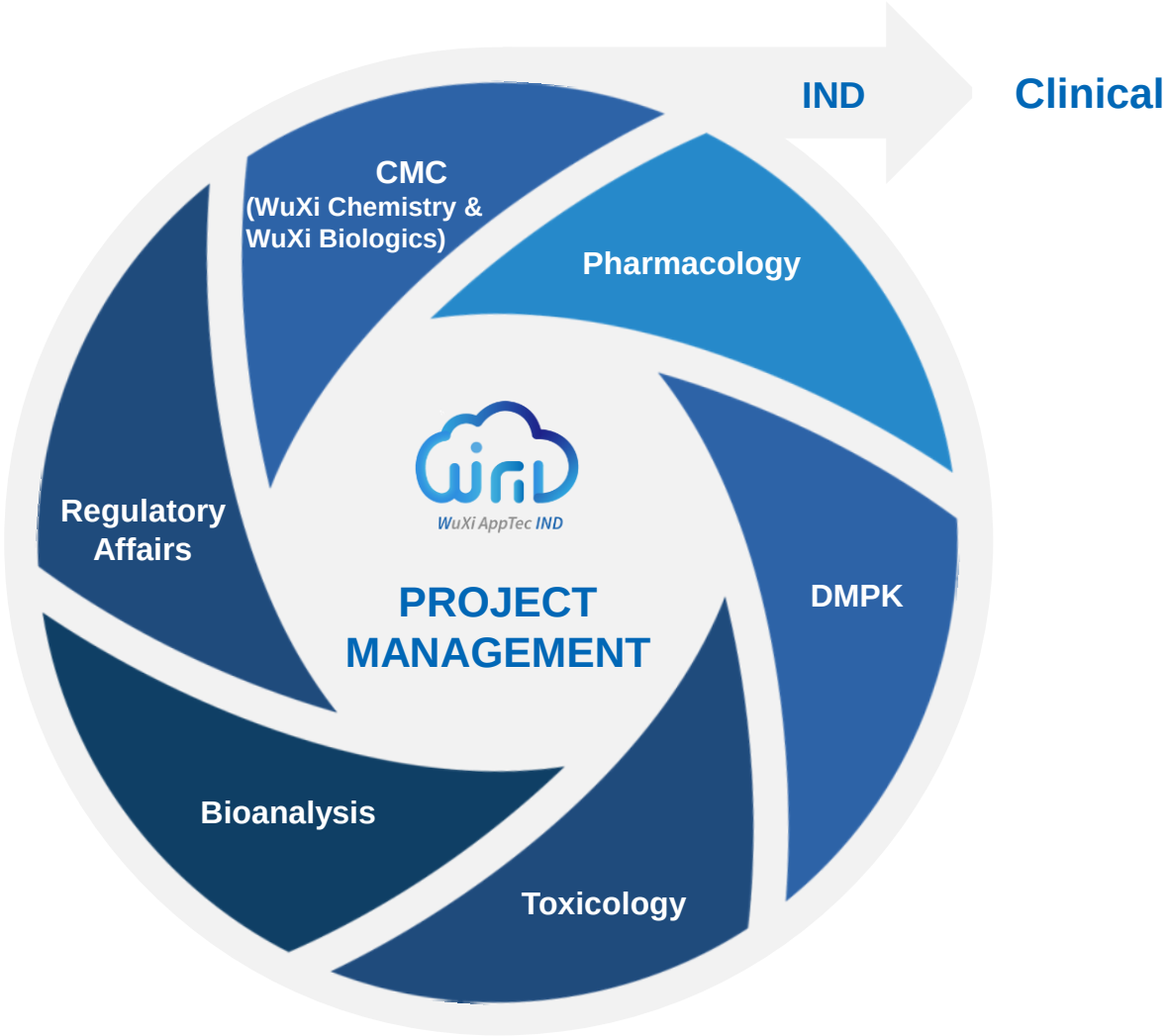
NMPA

OECD

pmda

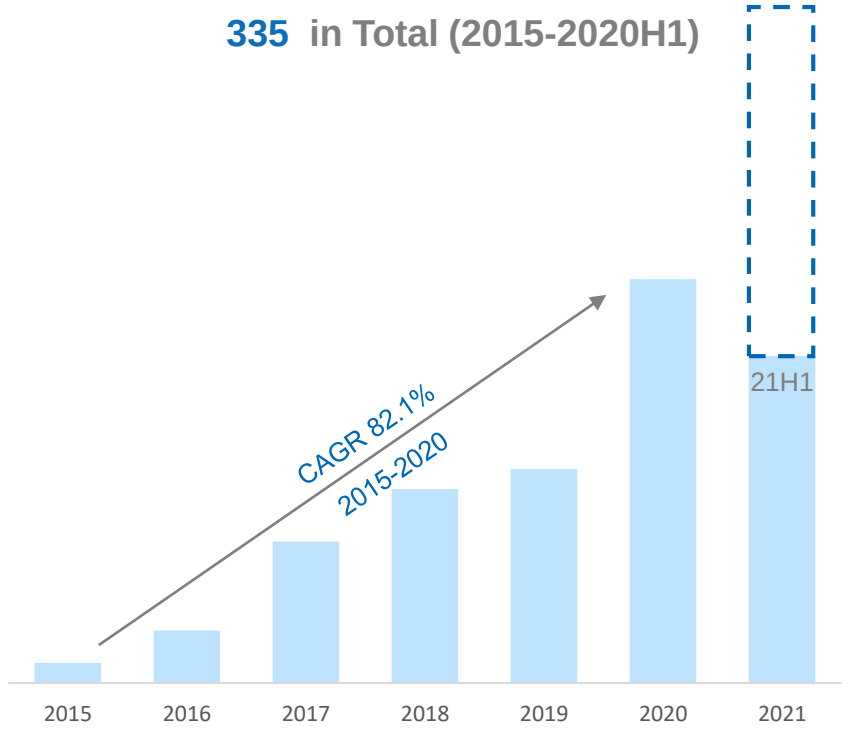
药明康德 WuXi AppTec

One Stop Solutions for Successful IND and Beyond



Contersigned IND Packages

335 in Total (2015-2020H1)



150 packages were completed including **21** COVID-19 projects, and **48** projects to clinical trials.

药明康德 WuXi AppTec

Accelerated IND Program to Combat COVID-19

Brii Biosciences **>>> NMPA & FDA**

Aug 05, 2021

Brii Biosciences Announces the Completion of Enrollment in the Phase 3 National Institutes of Health (NIH) ACTIV-2 Trial, Evaluating the BRII-196 and BRII-198 Monoclonal Neutralizing Antibody Combina

846 outpatients at high risk of clinical progression have been enrolled in the ACTIV-2 phase 2/3 clinical study, from sites in the United States, Brazil, South Africa, Mexico and Argentina. The participants are being evaluated for the combined endpoint of hospitalizations and death relative to placebo, in the 28 days following treatment.

Source from Brii Biosciences official website

WuXi Biologics Global Solution Provider — CMC

药明康德 WuXi AppTec — Safety Evaluation

Safety Evaluation

~6 Months, Saved 2 months

>> Project Timeline:

- From May 2020 to Nov 2020

>> Main Achievements:

- Data used for IND submissions to **China NMPA and US FDA**

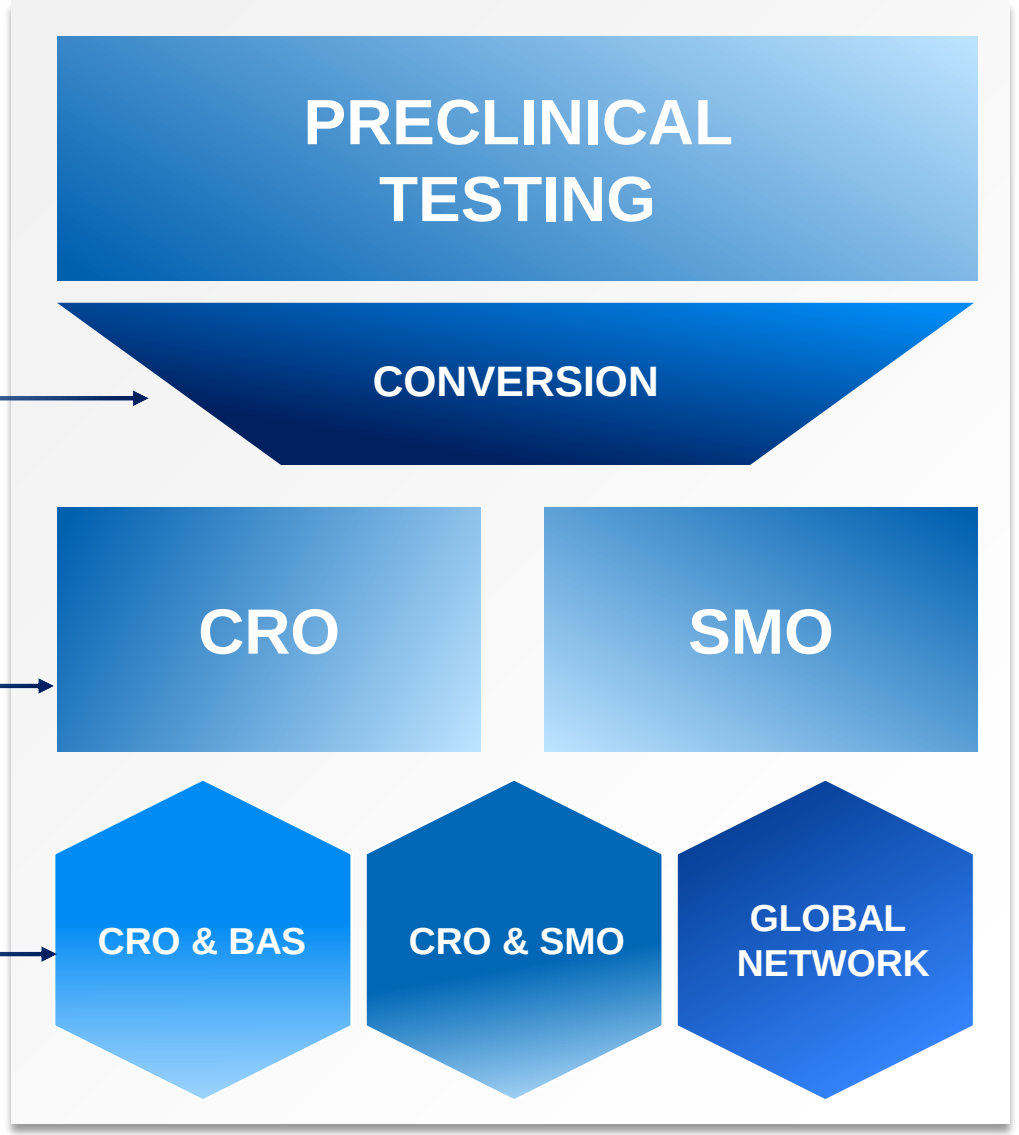
药明康德 WuXi AppTec

WuXi Testing Growth and Synergy Opportunities

Follow the Molecule
through conversion

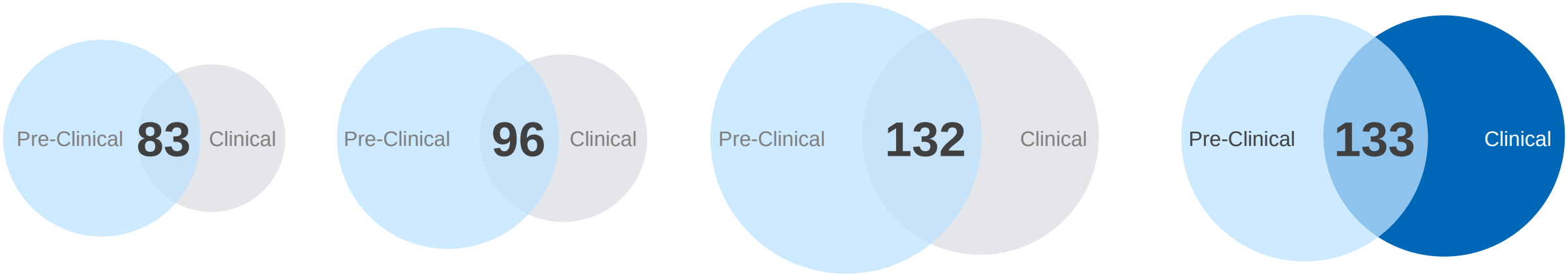
Win the Molecule
through differentiation

Achieve Synergy
through integration



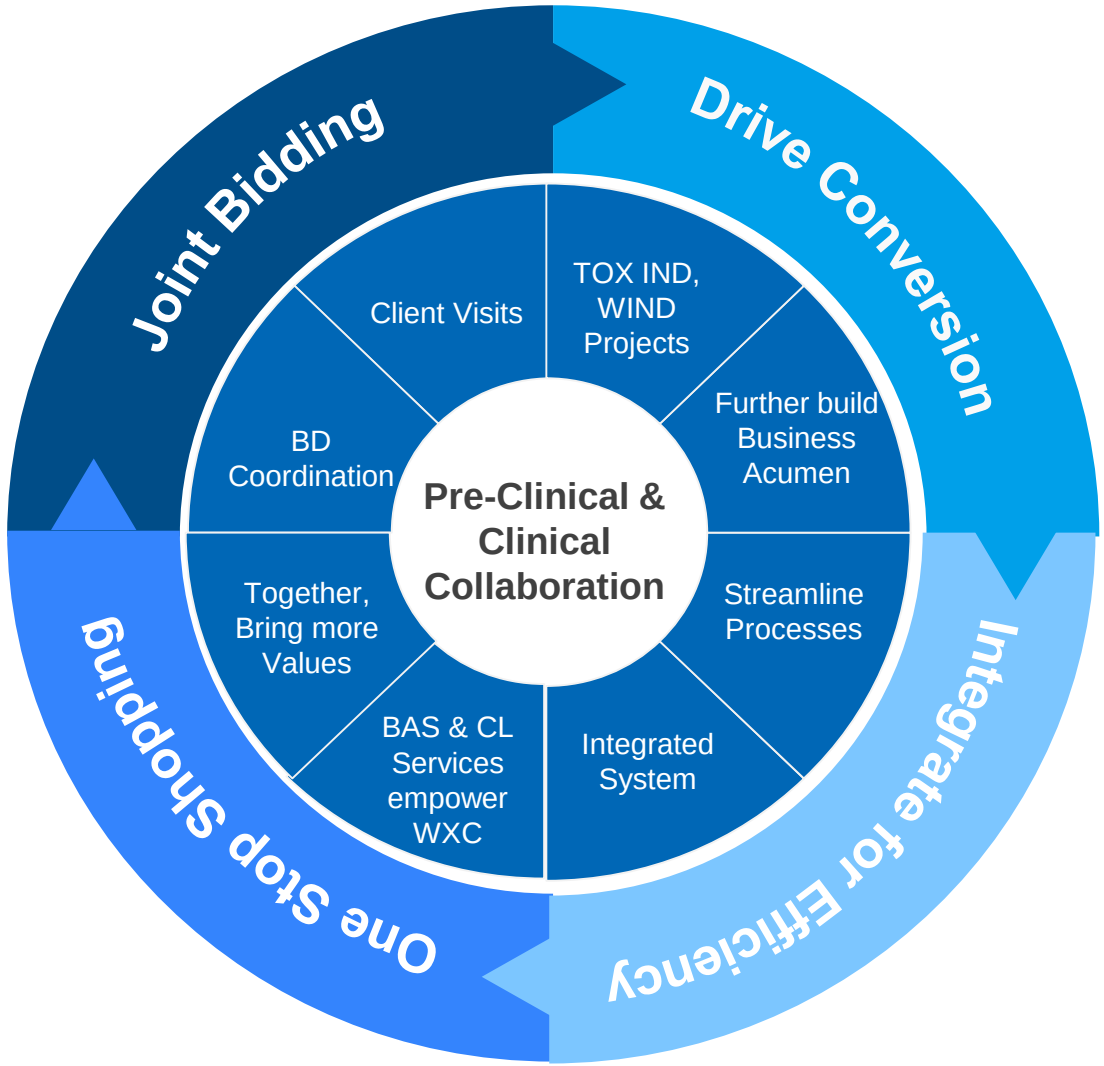
Synergy between Pre-Clinical and Clinical

Clients Number of Overlap Greater China between Pre-Clinical and Clinical Testing

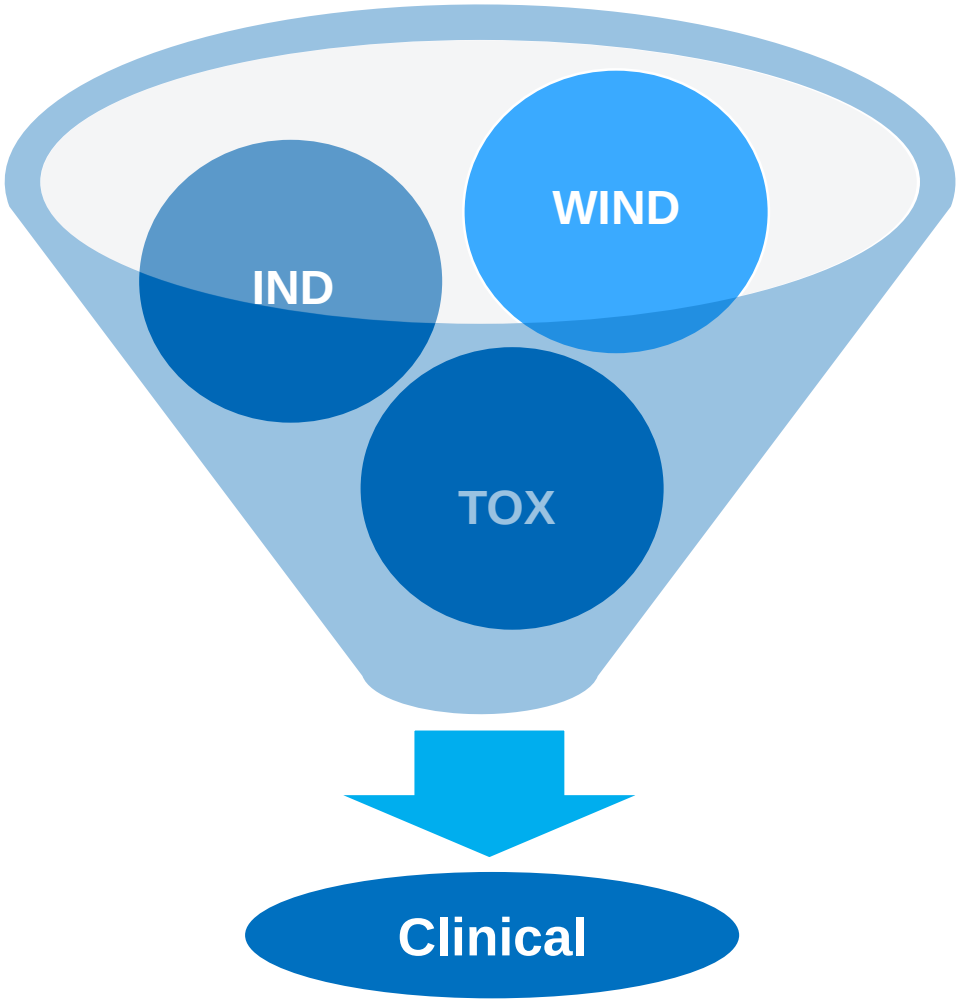


2018 2019 2020 **2021H1**

Drive Pre-Clinical to Clinical Conversion



Funnel of Opportunities



Synergy through Global Network

CHINA

- DMPK
- TOX
- BAS
- CRO
- Med Dev

WGQ,Shanghai

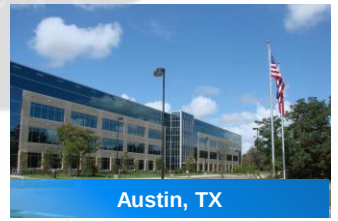
FU XING SOHO,Shanghai

Synergy

USA

- DMPK
- BAS
- CRO
- Med Dev

Plainsboro, NJ



Austin, TX

Clinical CRO and SMO Synergy in Operation

Patient	Site			Talent
	Operation	Alliance	Decentralized Trial	
• Accurate projection of patient pool • Efficient patient enrollment	• Synchronized site management • Sharing data for site selection • Speedy Site Startups	• Enhanced KOL alliance • Expedited operation execution	• Harmonized site management model • Promoted monitoring compliance • Remote monitoring • Streamlined QC	• CRC - CRA transferring path • CRC - CRA cooperation

SMO: Best Quality Service with Broadest Hospital Coverage

~150

CITIES NATIONAL WIDE

LOCAL CLINICAL RESEARCH TEAM

SMO: Strong Site Database and Management Data

01.Hospital Management

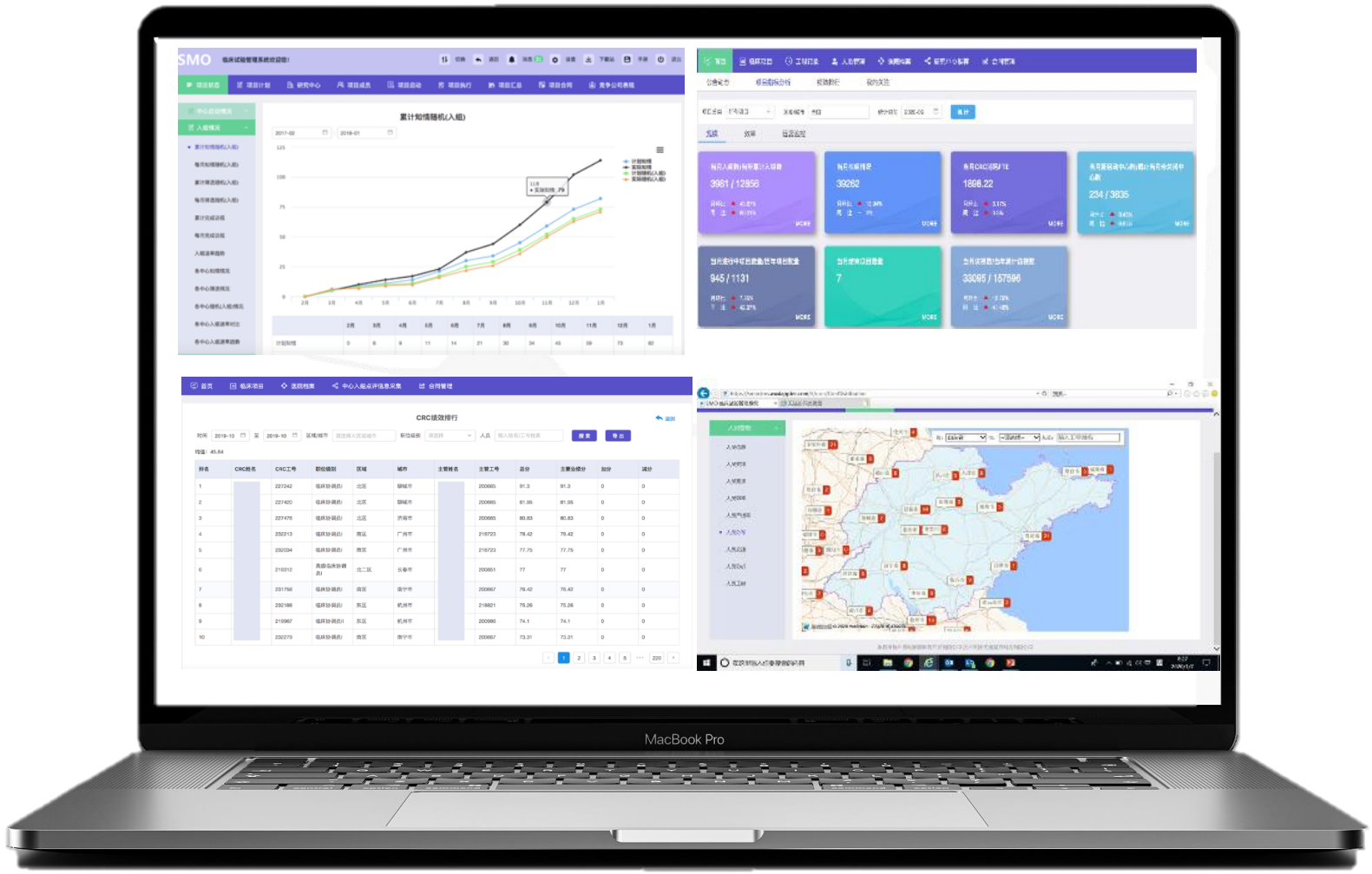
~1000 hospitals, a database of over 2,000,000 pieces of site start-up procedure items, 8000 site departments and investigators, **80,000+** patients in management.

02.Project Management

1500+ project experience, Supported 73 new drugs/medical devices approved on China / EMA / FDA market in recent 6 years

03.Personnel Management

4000+ staff, efficient personnel management, resource allocation, performance appraisal



药明康德 WuXi AppTec

SMO: Enable New Drug Approvals in China

14

approvals

in 2021H1

17

approvals

in 2020 whole year

多纳菲尼

- Zelgen's Donafenib approved in China 2021

曲妥珠单抗生物类似物

- Henlius's Trastuzumab biosimilar approved in EMA 2020

泰他西普

- RemeGen's Telitacicept in China 2021

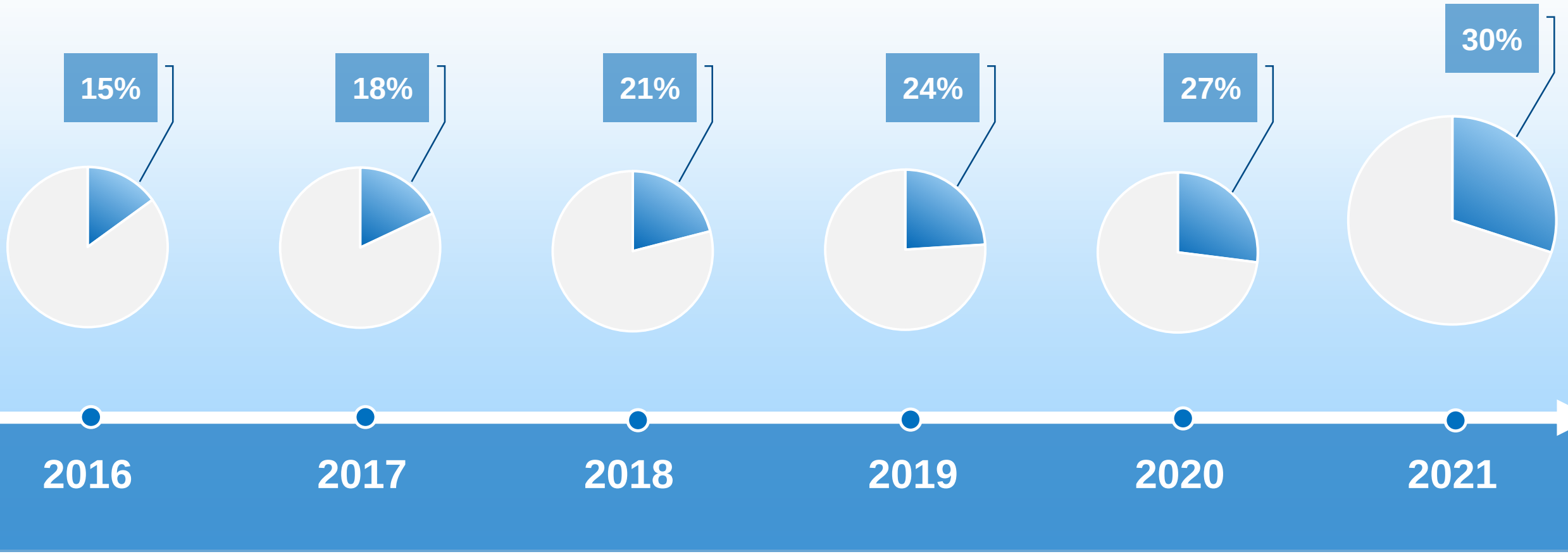
尼拉帕利

- Zai Lab's Niraparib in China 2020

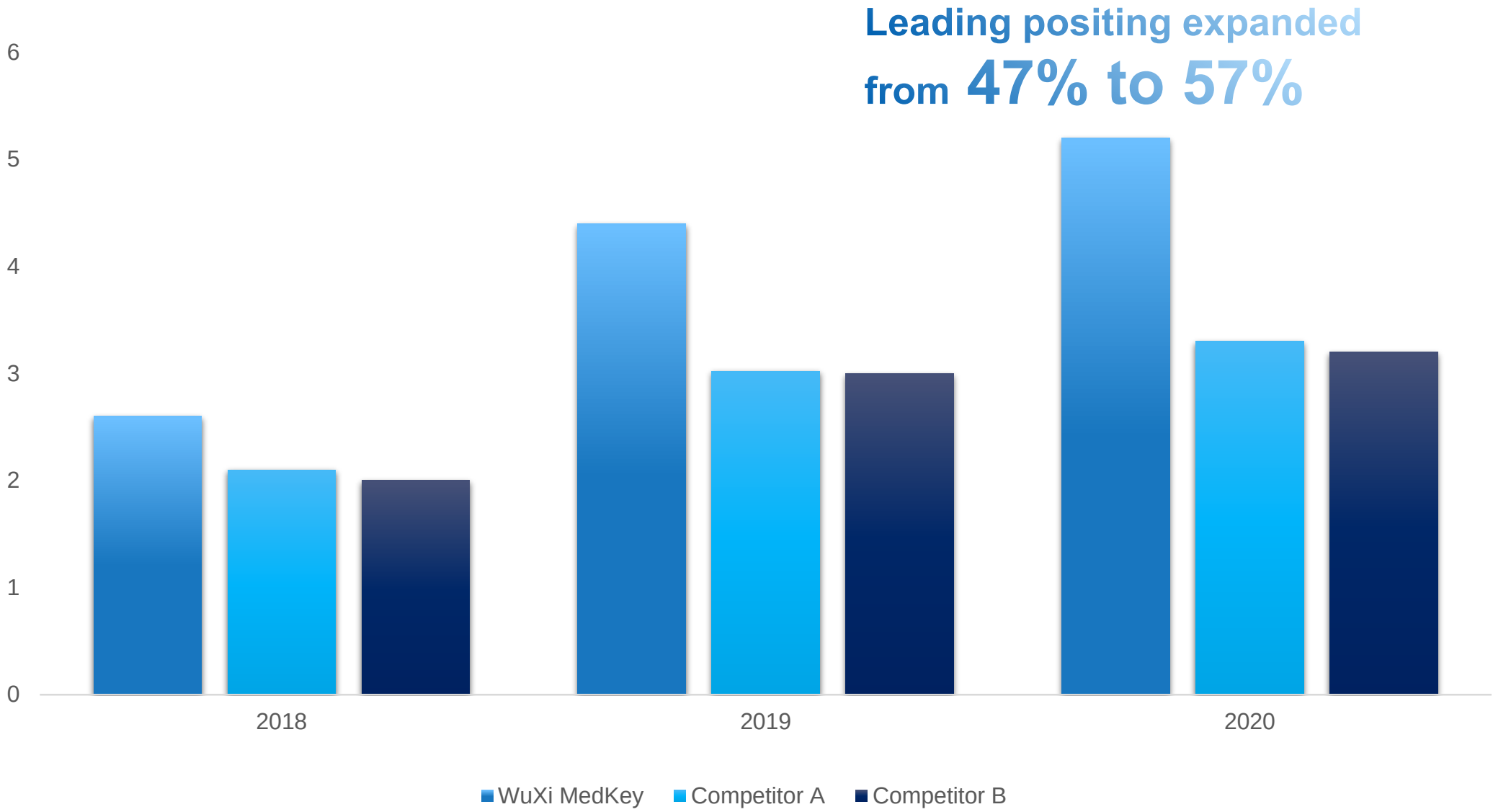
- First PD-1 product in 2018

- First Car-T product approved on China market 2021.

SMO Business Continues to Gain Market Share in China



The Largest SMO in China with Expansion of Leadership Position



WuXi Clinical: Global Clinical CRO Service Platform

WuXi Clinical provides Phase I to Phase IV clinical development services for products including pharmaceuticals, medical devices and IVDs

China

- Shanghai, Headquarters
- Beijing
- Wuhan
- Taipei
- Chengdu
- Guangzhou
- Changsha
- Xi'an
- Shenyang

Australia

- Sydney

United States

- Austin, Texas
- San Diego, California

- Advantages of WuXi AppTec **Integrated** Service Platform
- Offices in **12** cities globally
- Covering **30+** major cities in China
- **850+** employees globally

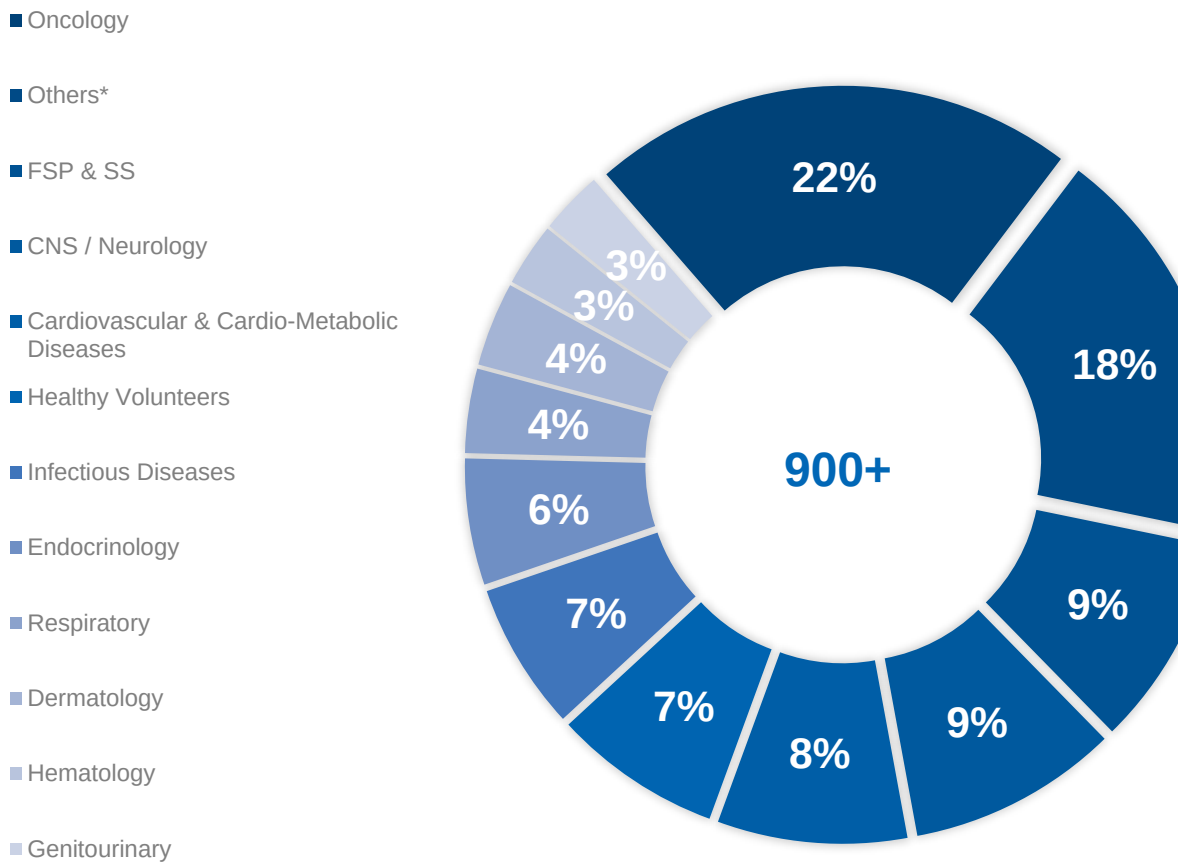
药明康德 WuXi AppTec

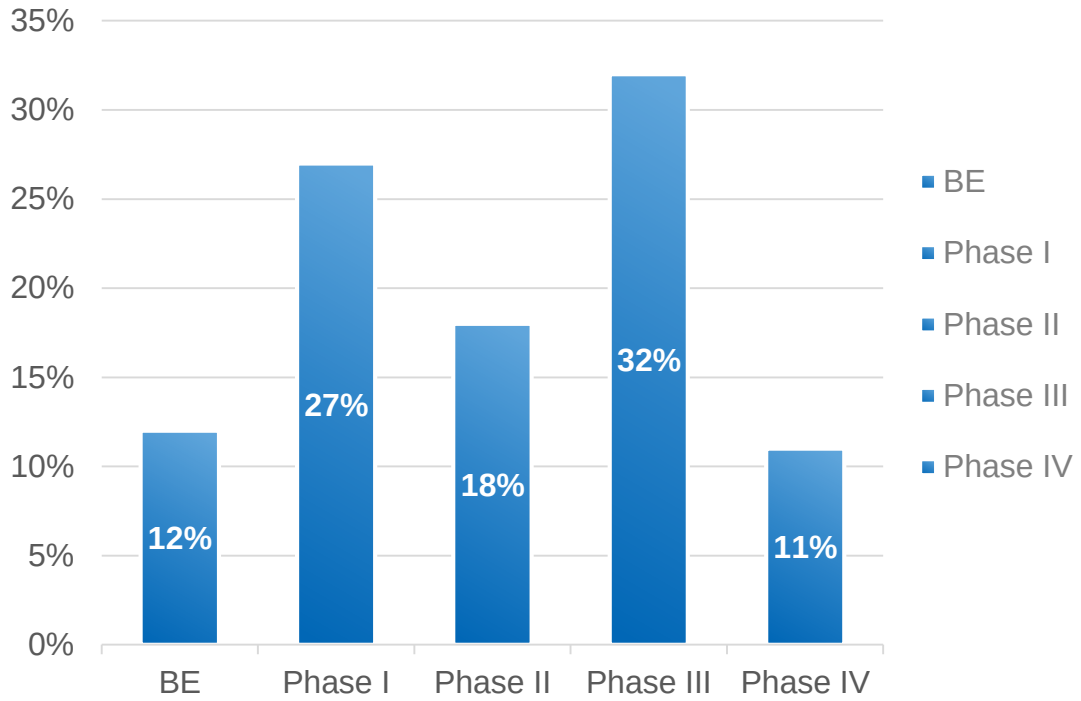
WuXi Clinical: Therapeutic Area Experience

900+ projects of global clinical trials by China and US team

Supported **50 +** new drug applications (NDA)

Received and passed **30 +** inspections by NMPA / CFDA and US FDA in the last 6 years

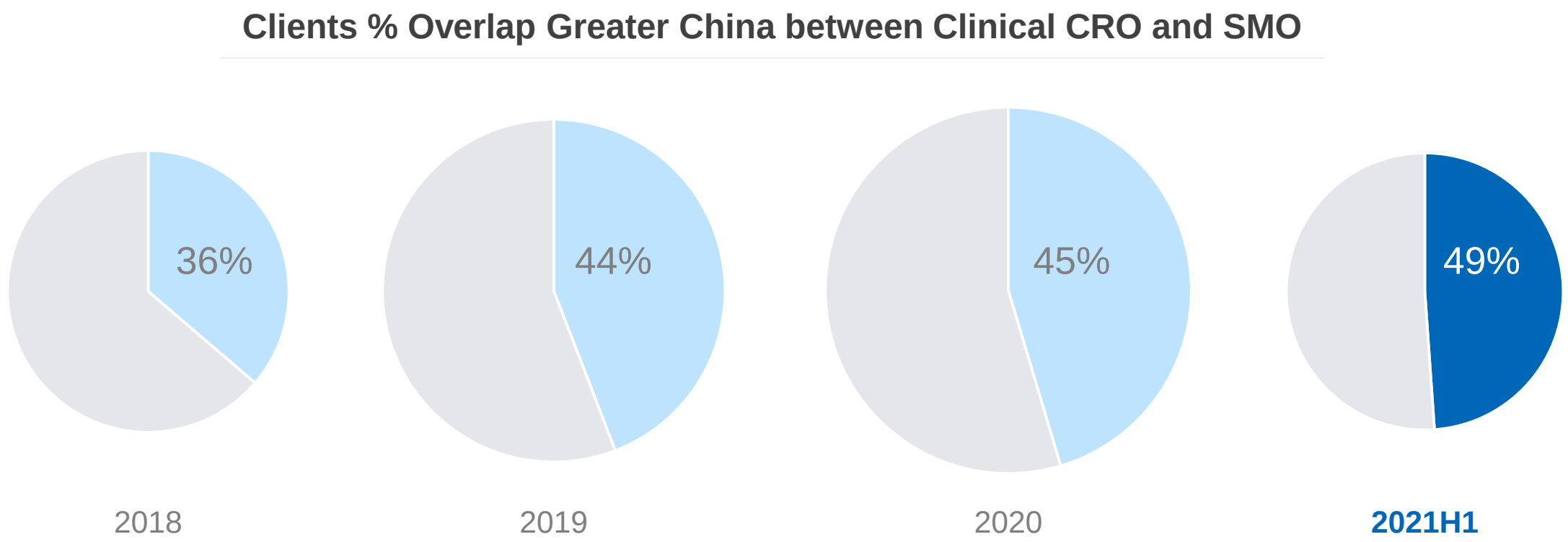




* Including Immunology, Gastroenterology, Women's Health, Hepatology, Medical Device and Musculoskeletal

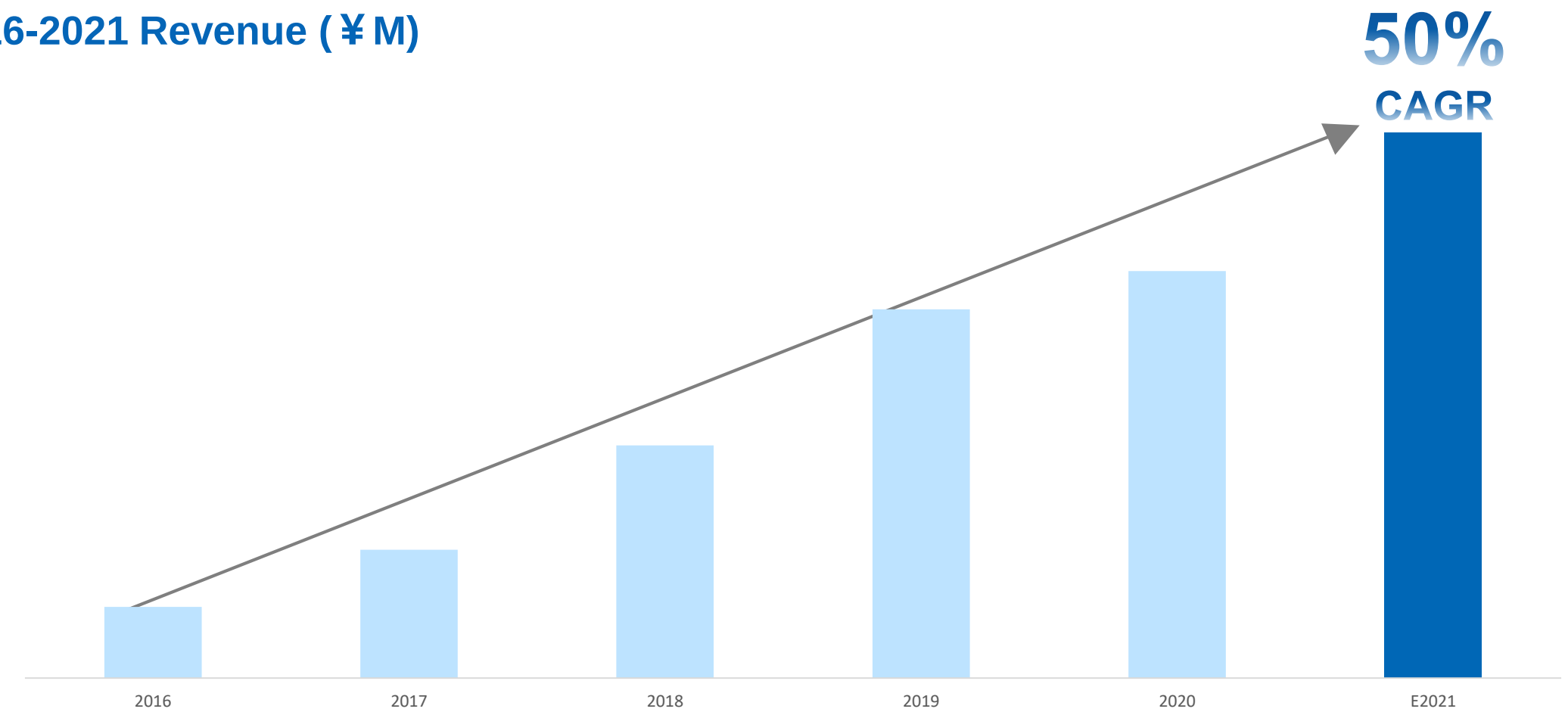
药明康德 WuXi AppTec

Synergy in Customer between Clinical CRO and SMO

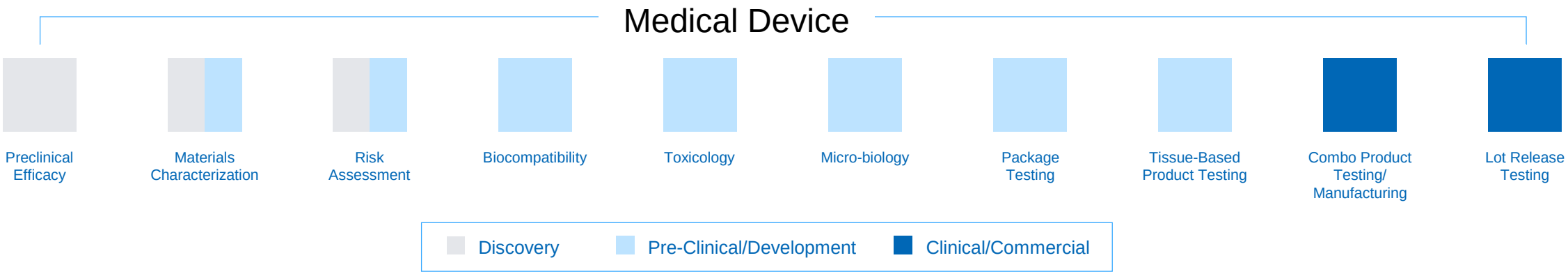


Robust Growth of Clinical Business (CRO+SMO)

CRO+SMO
2016-2021 Revenue (￥M)



Medical Device: Comprehensive Testing Capabilities



St. Paul facility(1)

St. Paul facility(2)

Atlanta

Suzhou

aaalac INTERNATIONAL

ACCREDITED

CMA

CNAS

FDA

ISO

OECD

药明康德 WuXi AppTec

Enable R&D Innovation through Making and Testing

Make

Design → Decision → Delivery

Test

WuXi Testing

WuXi Testing Key Growth Strategy

01 Maintain market leadership position in pre-clinical business

02 “Follow the molecule” and “win the molecule” to drive growth in clinical business

03 Achieve synergy across WuXi Testing platform

04 Continue to build new capacities of pre-clinical business

05 Build testing capabilities in new modalities