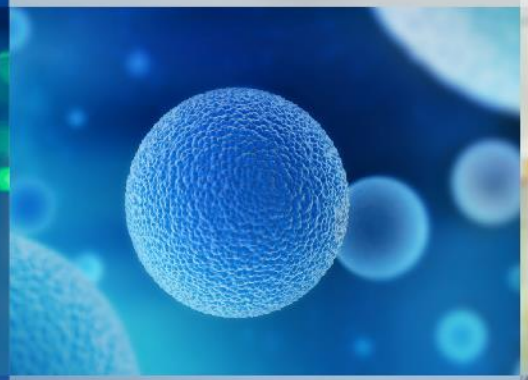
药明康德
WuXi AppTec

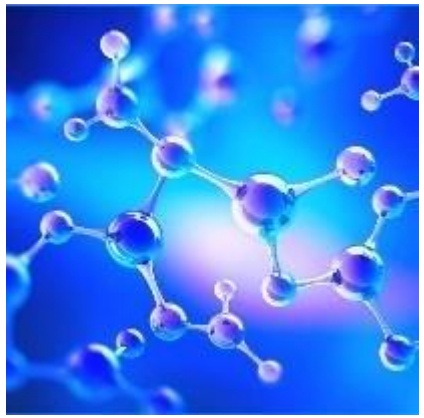
Global Platform.
One Vision.



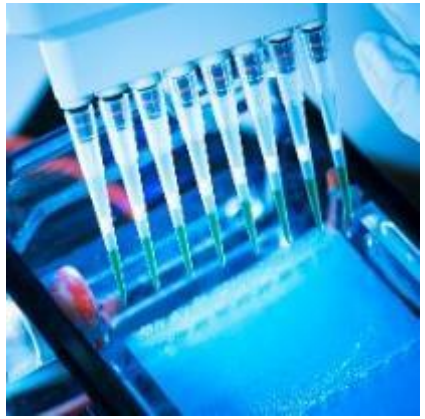



WuXi AppTec: Global Platform. One Vision.

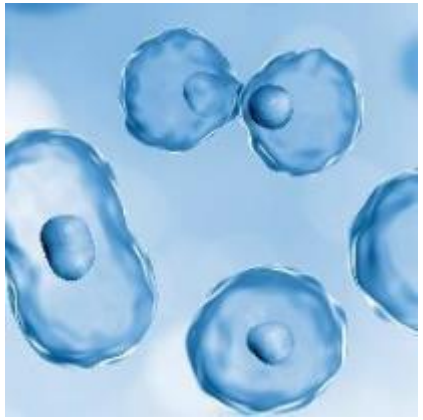


WuXi Chemistry

WuXi Biology



WuXi Testing



WuXi ATU

Manufacturing

Research

Clinical Trials

Development

Testing

药明康德 WuXi AppTec

WuXi Chemistry

Our Vision

Every drug can be made and every disease can be treated.

Our Mission

To enable innovation and be a global contributor to pharmaceutical development and manufacturing from discovery to commercial supply.

Minzhang Chen Ph.D.

Co-CEO of WuXi AppTec

WuXi Chemistry – a Global Leading CRDMO

Jingchao Dong
Ph.D.

Research Chemistry

Small Molecule “R”esearch

Xiaoyong Fu
Ph.D.

STA

Small Molecule “D”evelopment and “M”anufacturing

Yu Lu
M.B.A.

TIDES

Oligonucleotides and Peptides “R”esearch, “D”evelopment and “M”anufacturing

Global Platform. Global Talent.

16 sites

22,258 employees

2,477 clients

as of June 30, 2024

We Enable Our Partners to Discover, Develop and Produce All Synthetic Molecules and Drug Products

We are a Vital Partner in Bringing New Treatments to Patients Across the Globe

CRO | CDMO | CMO

450,000+

DISCOVERY
Compounds Synthesized

3,252

PRECLINICAL to PHASE 3
Drugs

67

COMMERCIAL
Drugs

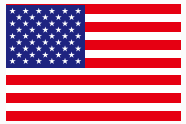
Every **2,500** compounds yield **1** preclinical candidate

We support **1** out of **7** global clinical programs

We produce **4** out of **10** global top-selling small molecule drugs

In the last 12 months

Quality is at the Core of our Culture



15 US FDA 2013 - 2024

7 EMA 2009 - 2024

53 China NMPA 2015 - 2024

9 Japan PMDA 2019 - 2024

4 South Korea MFDS 2022

5 SwissMedic 2018 - 2024

320+ client audits every year

20+

pre-approval inspections waived by US FDA and EMA

105

country approvals for branded drugs

540

CMC submission packages written to support global IND and NDA filings during 2019-2023

IP Protection

PREVENTION | PROTECTION | PROSECUTION

“Our purpose in business is to enable innovation for our global partners, who keep us at the top of their confidence. IP is our shared lifeline. We guard it at WuXi with our founding principles of integrity, world-class security, zero tolerance policies, and relentless pursuit of justice against any criminal act. This is our highest priority, and we must hold ourselves accountable. We are determined to earn the trust of our partners by committing to success together.”

— Ge Li, PhD, Chairman and CEO

Commited to Sustainable Environmental Practices

10+ global ESG recognitions

CDP Environmental Leadership Award

Silver Rating for Business Sustainability in 2022 - 2023

Consecutive “AA” ratings in 2021 - 2024

ESG award 2024

Sustainability Management and Technologies

Process Innovation, Biocatalysis, Flow Chemistry

Process Mass Intensity

2023 vs. 2020 (Mass of input material per mass of product)

19.4%↓
Process Mass Intensity

Committed to the Science Based Targets Initiative (SBTi)

2023 vs. 2020 (per RMB 1,000)

23.1%↓
Carbon Emission

19.7%↓
Energy Consumption

38.8%↓
Water Usage

Our Targets by 2030

Greenhouse gas

25% reduction
GHG emission intensity

Energy-saving

25% reduction
Energy consumption intensity

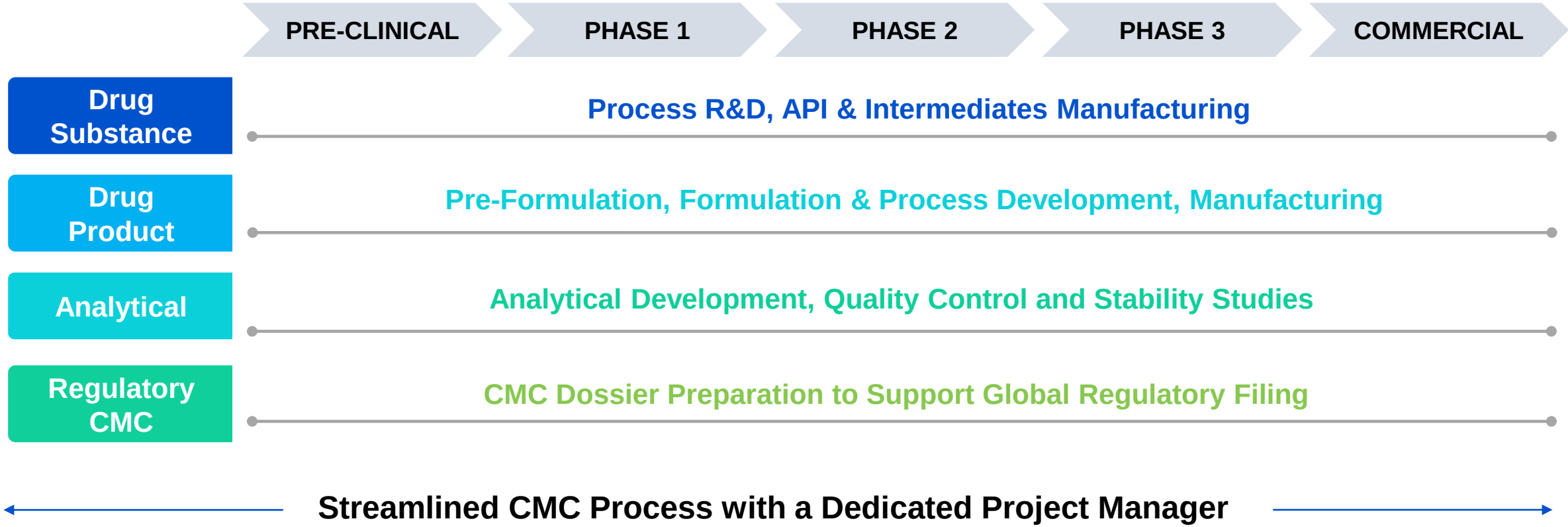
Water-saving

30% reduction
Water usage intensity

Waste management

Achieve landfill-free for all productive hazardous wastes

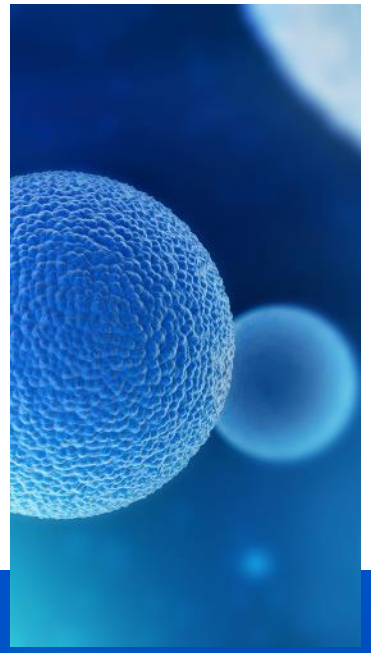
Our Integrated CMC Solutions



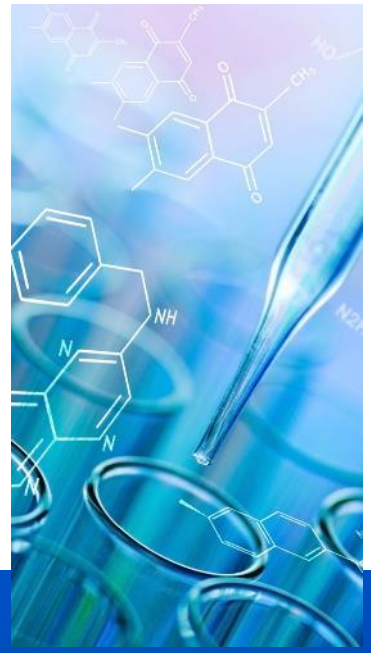
Our project manager becomes extension of your team, overseeing the entire process to ensure timely and transparent communication and enabling on-time, high-quality delivery.

Drug Substance Enabling Technology Portfolio

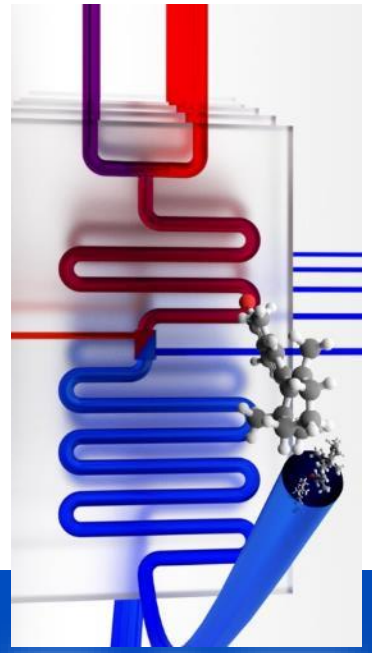
Crystallization & Particle Engineering



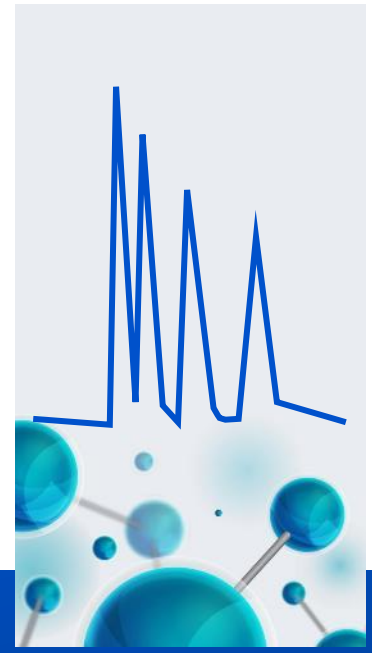
Biocatalysis



Chemo Catalysis



Flow Chemistry



Preparative HPLC, SFC & SMB

High Potency API Process R&D and Manufacturing

- OEL limit 10 ng/m^3
- HP R&D labs | HP kilo labs | HP plants
- 10 reactors, 250 - 3,000 L
- Total reactor volume: >10 m^3

- Batch and flow modes
- Multiple prep HPLC and lyophilization trains (up to 10 m^2)
- Milling: wet, jet, pin and hammer

HP API Manufacturing Plant
Changzhou • China

Drug Substance Capacity Overview

29
Plants

3,200+ m^3
Total Reactor Volume (TRV)

22,000+
Batches produced in 2023

3,400+
Scientists

Site Highlights: Changzhou Site

74
Acres

15
Plants

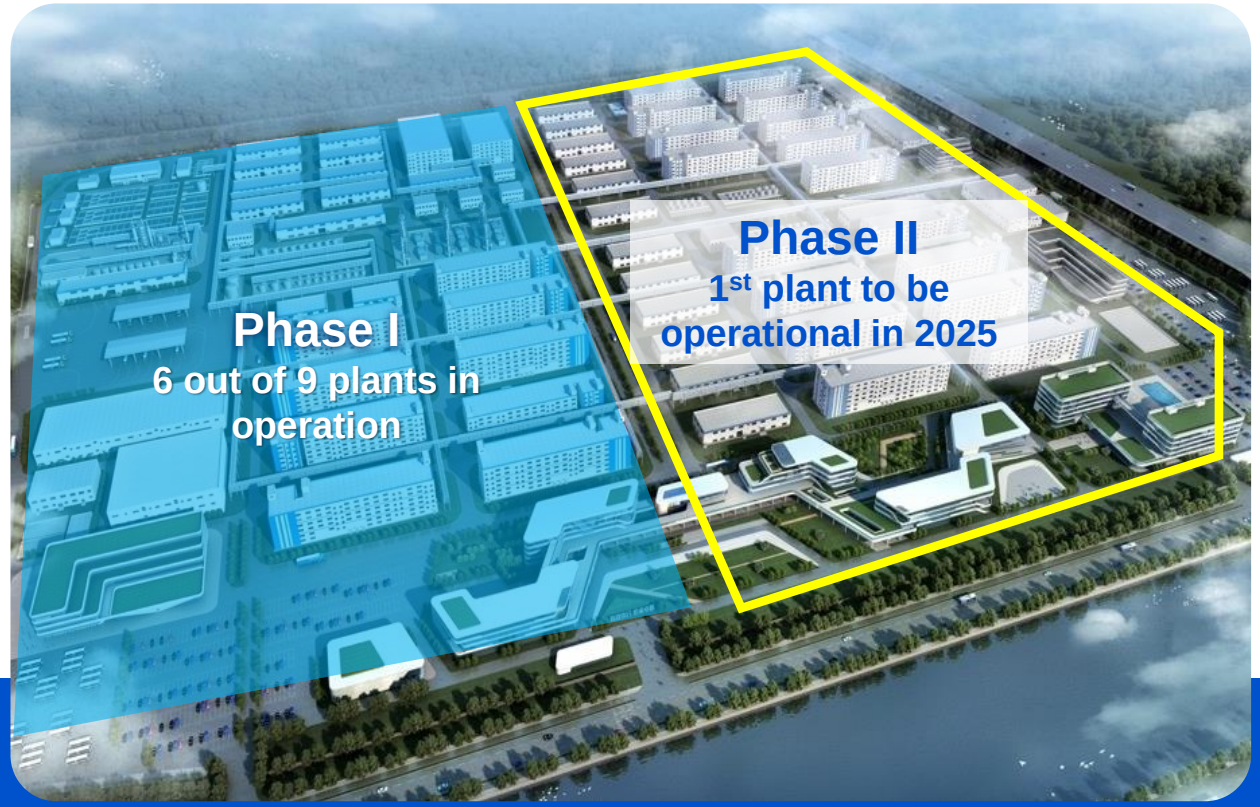
1,800+ m^3
Total Reactor Volume

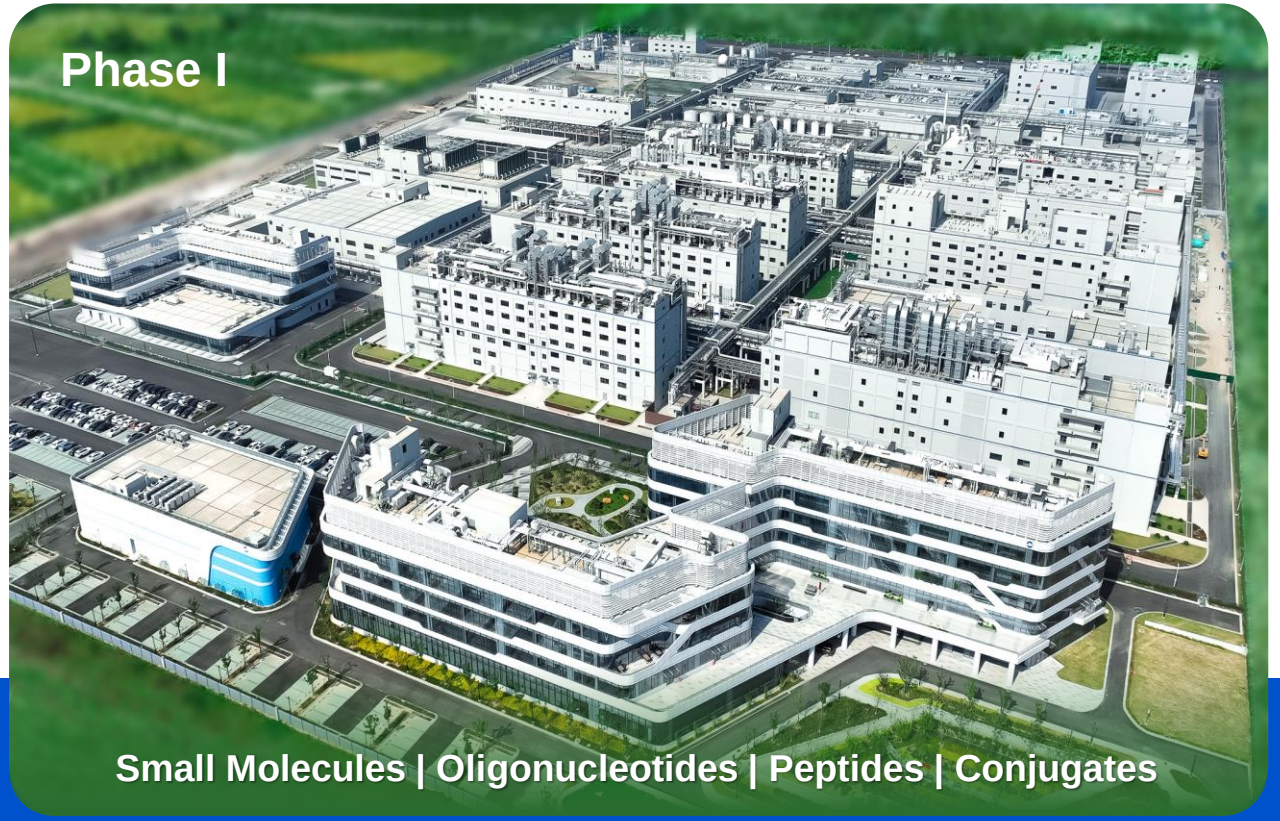
11,000+
Batches produced in 2023

1,500+
Scientists

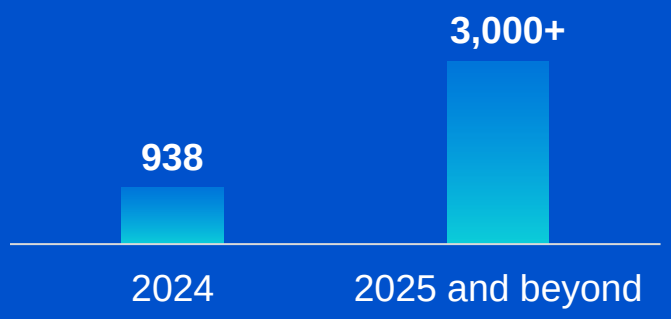
Explore Our Future API Manufacturing Hub: Taixing Site

169-Acre Campus





Total Reactor Volume (TRV) m^3



Phase I Scope

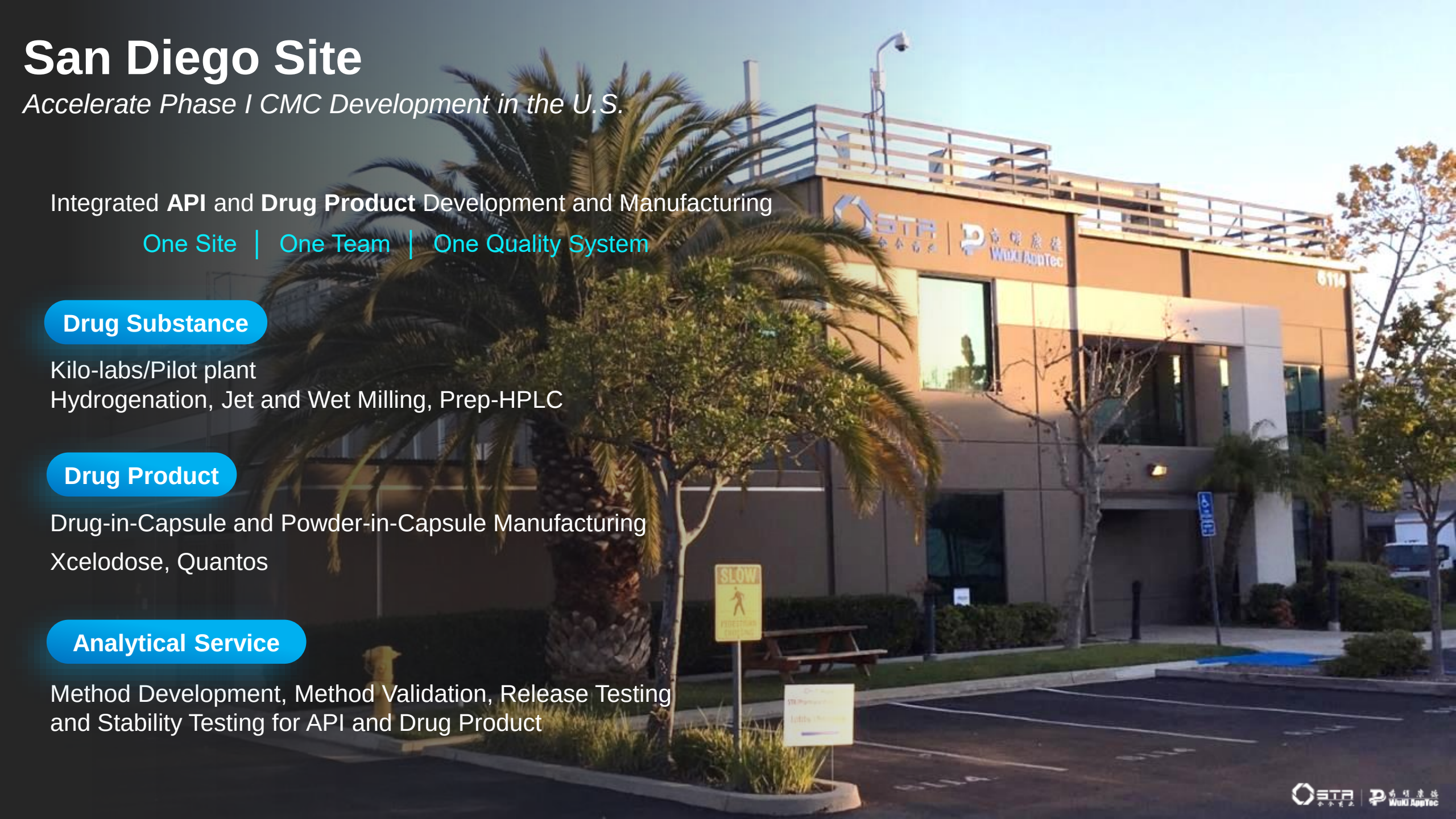
9
plants

180+
reactors from 200-15,000 L

1,000 m^3
TRV

San Diego Site

Accelerate Phase I CMC Development in the U.S.



Integrated **API** and **Drug Product** Development and Manufacturing

One Site | One Team | One Quality System

Drug Substance

Kilo-labs/Pilot plant
Hydrogenation, Jet and Wet Milling, Prep-HPLC

Drug Product

Drug-in-Capsule and Powder-in-Capsule Manufacturing

Xcelodose, Quantos

Analytical Service

Method Development, Method Validation, Release Testing and Stability Testing for API and Drug Product

Why WuXi TIDES

Complexity is our Speciality

- Vertically from research to development and manufacturing
- Horizontally from small molecule to oligonucleotide and peptide, from DS to DP, from high potency to flow chemistry to biocatalysis

→ Handle the most complexity at any scale and any phase!

Dedicated Capacity

- 1,100+ scientists dedicated to oligonucleotide & peptide
- 32,000+ L Solid Phase Peptide Synthesis reactor volume and adding more
- 20+ oligonucleotide product lines at various scales

Rapid Delivery

- Two complex siRNA-GalNAc IND CMC packages (DS+DP) completed for a biotech client in 14 months
- Rapid capacity expansion to respond to demand increase
  - Added >20,000 L SPPS reactors & large purification capacity in 12 months

Quality Focus

- Do the right thing, doing it right!

→ 900+ commercial batches delivered with zero failure rate

WuXi TIDES Global Footprint

China

Shanghai Waigaoqiao O P
discovery oligo & peptide, preformulation & formulation R&D

Changzhou, Jiangsu O P
API R&D and manufacturing

Taixing, Jiangsu O P
API manufacturing

Wuxi City, Jiangsu O P
formulation R&D and manufacturing

Tianjin O
discovery, amidite, GalNAc

Wuhan, Hubei P
discovery

Chengdu, Sichuan P
discovery, unnatural amino acid

United States

Middletown, DE O P
formulation
R&D & manufacturing

Switzerland

Couvet, Neuchâtel O P
drug product manufacturing
(Injectable line operational in 2 years)

Singapore

Tuas Singapore O P
API R&D and manufacturing
(operational in 2027)

O oligonucleotide
P peptide

1,100+ scientists

New Facility in Singapore

50-Acre Campus

Phase I scope:

- **2** plants for small molecule API
- **1** plant for oligonucleotide, peptide and complex chemical conjugates
- First plant start operation in 2027

Further expansion:

- **4** more plants for small molecule, oligonucleotide and peptide

Oral Dose Platform Overview

950+
preclinical to commercial drugs supported *as of Q2 2024*

2,400+
batches delivered in 2023

10 billion
doses annual capacity

Dosage Form

- Tablet
- Capsule
- Powder
- Granule
- Liquid in bottle

Packaging and Labeling

- Bottle
- Blister
- Sachet
- Open labeling
- Double-blind labeling

Parenteral Formulation Platform Overview

70 million
units annual capacity

5
aseptic filling lines

Dosage Form

- Solution
- Suspension/Emulsion
- Lyophilized powder
- Advanced formulations (e.g., Liposomes, Lipid Nanoparticles, Nano Particles)

Filling Format

- Vial
- Prefilled syringe
- Cartridge
- LDPE Ampoule

Sterilization Method

- Sterile filtration
- Heat-moist sterilization
- Irradiation

High Potency Drug Product Platform

10 ng/m^3 OEL limit

HP Oral Solid

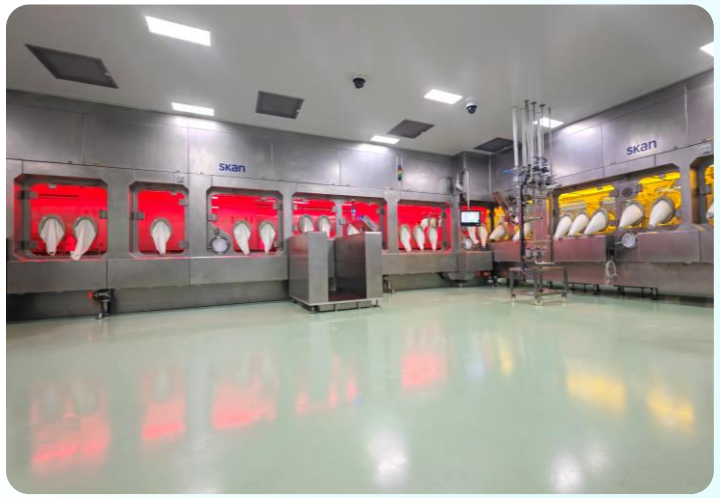
wet/dry granulation,
tableting/encapsulation, coating

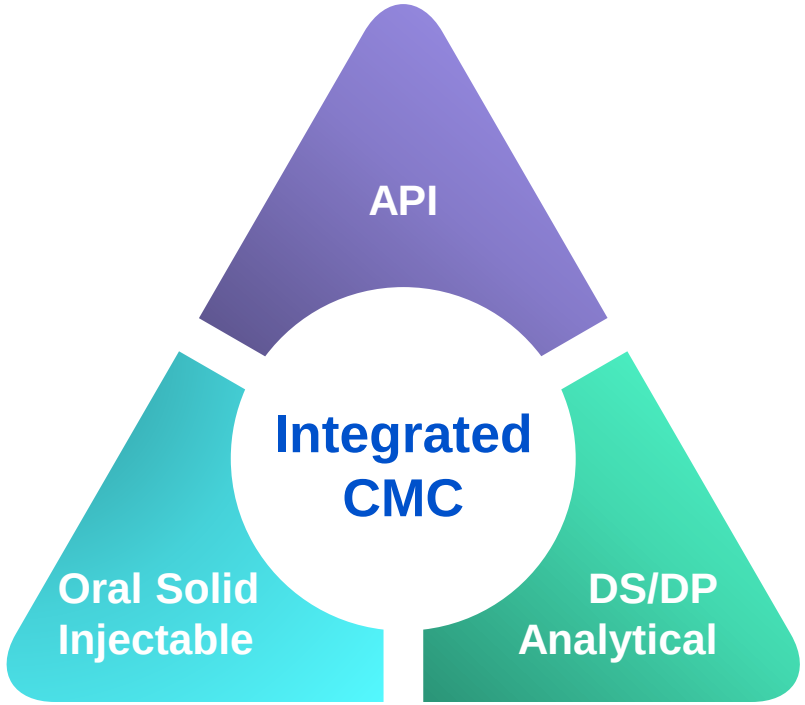
1.1 billion
doses annual capacity

HP Injectable

solution, lyophilized powder,
suspension, emulsion

12 million
vials annual capacity

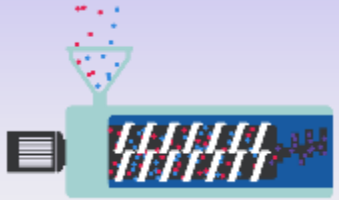




Drug Product Bioavailability Enhancement Technologies

Spray Dried Dispersion

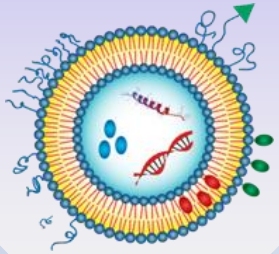
Hot Melt Extrusion



Nano Suspension

Liquid Capsules

Lipid Nanoparticle (LNP)



Drug Product Manufacturing Site Overview

Shanghai Waigaoqiao, China

Oral Solid R&D and Manufacturing
Injectable R&D

Wuxi City, China

Oral Solid R&D and Manufacturing
Injectable R&D and Manufacturing

Couvet, Switzerland

Oral Solid Manufacturing

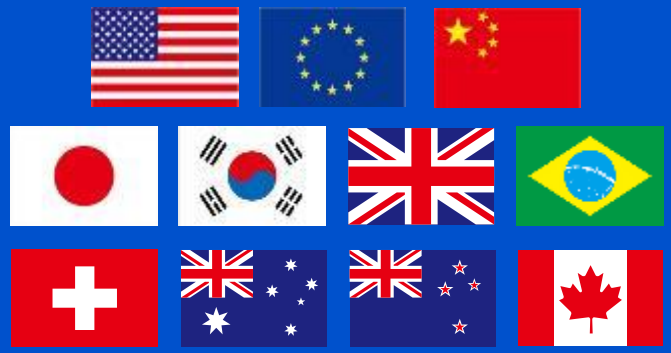
San Diego, USA

Oral Solid R&D and Manufacturing

10+ commercial drug products supported

40+ NCE drug product validations completed since 2019

Inspection Track Record



Wuxi City Site

Integrated Formulation Development and Manufacturing Site

OSD & Parenteral

25 acres

Formulation R&D Center

Enabling Technologies

- Hot Melt Extrusion
- Nano Suspension
- Lipid Formulation
- Lipid Nanoparticles

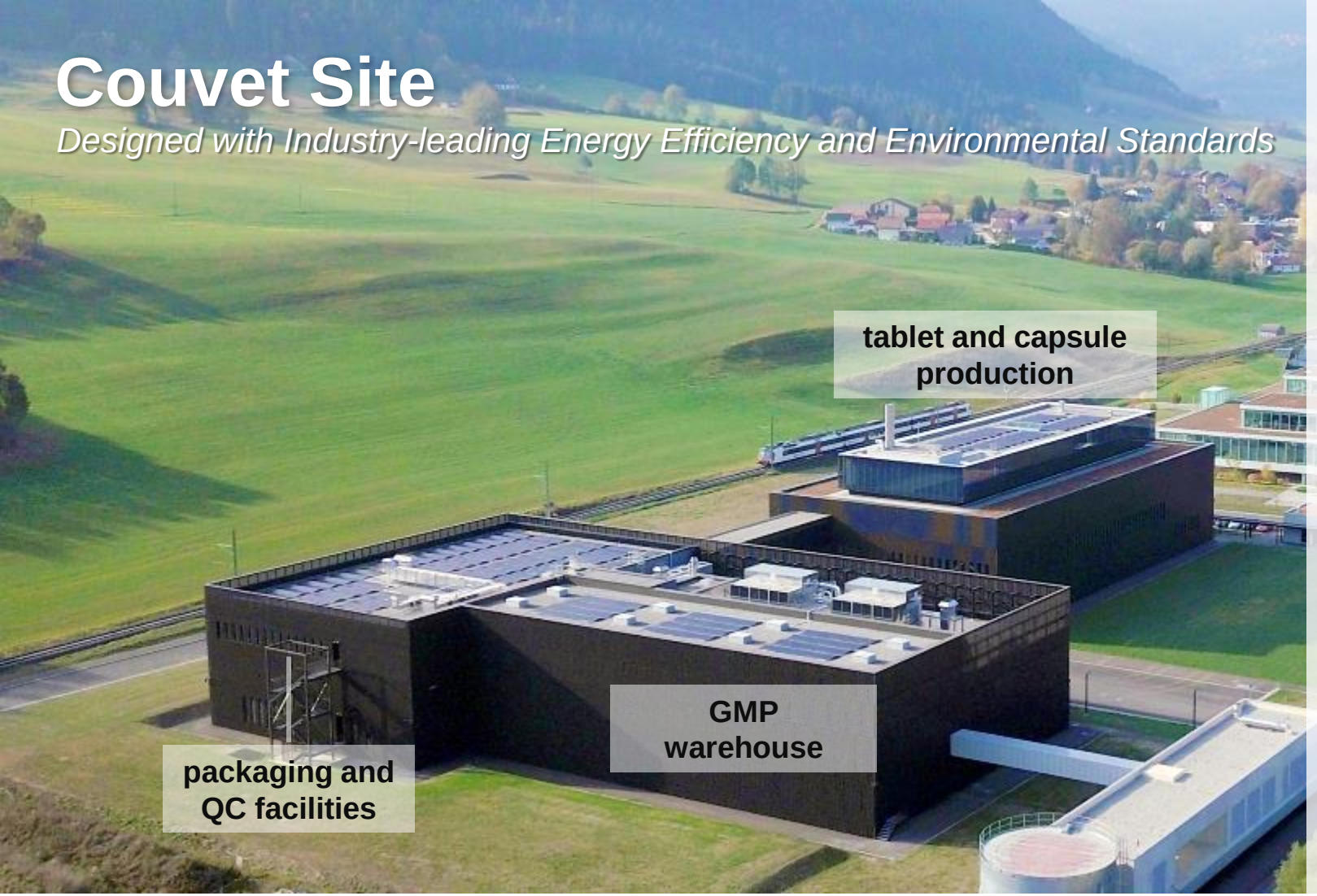
10+ Plants

- Tablet & Capsule Plant
- HP Tablet & Capsule Plant
- Sterile Formulation Plant
- Ointment Plant
- Gel Plant

Global Regulatory Approval

Couvet Site

Designed with Industry-leading Energy Efficiency and Environmental Standards



Capabilities and Capacities

1.1 billion oral solid doses

- wet/dry granulation
- tableting/encapsulation
- coating

Packaging: million bottles | million blisters | million cartons

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2024 Expansion

2X
bottle and blister packaging capacity

Next 2 years
Spray drying | Parental manufacturing | Lipid Nanoparticle (LNP)

Global drug product supply chain under one quality system meeting global standards (China/Switzerland)

Delivering commercial products for 8 key markets

Drug Product Expansion in the U.S.

Middletown Site, Delaware, US **190 acres**

Phase I

- Formulation R&D
- Clinical and commercial production
- Packaging, labeling, and distribution

Picture taken in July 2024

药明康德 WuXi AppTec

Improving Health.
Making a Difference.