



***CMC (Small Molecule CDMO) Services
Facilities***



1 Manufacturing Capacity Summary



Facilities – Geographic Location



Hoddesdon (UK)

- GMP API (OEL 5 µg/m³)
- Clinical Phase I/II



Beijing Headquarters (China)

- Process – GMP API (OEL 5 µg/m³)
- OSD Formulation – GMP DP
- HiPo GMP API (OEL 0.1 µg/m³)
- Clinical Phase I/II



Tianjin (China)

- Intermediates
- GMP API (OEL 5 µg/m³)
- Clinical Phase I/II/III

Shaoxing (China) Q4 2021

- Intermediates
- GMP API (Commercial)
- Clinical Phase I/II/III, NDA & Commercialization



Ningbo (China)

- GMP API (OEL 0.5 µg/m³)
- OSD Formulation – GMP DP
- Clinical Phase I/II/III, NDA & Commercialization (<30 kg batch)

Process R&D

Process Development

- Route exploration and fit-for-purpose R&D
- Commercial process R&D for late stage APIs

Process Safety

Process Engineering

New Chemical Technology

- Catalysis, hydrogenation, flow chemistry, biosynthesis

Kilo Lab (non-GMP & GMP)

QC/QA/RA

Analytical/QC/Stability

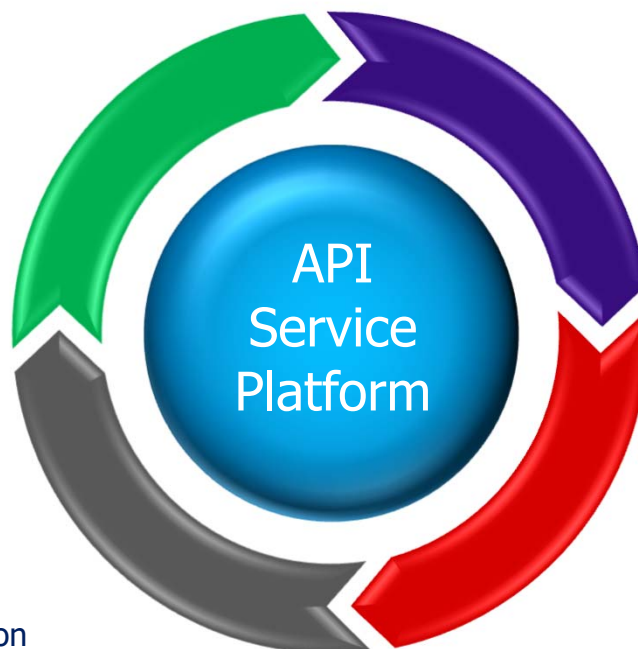
- Method development and validation
- Impurity profiling and forced degradation studies
- GT impurity quantitation

Quality Assurance

- GLP/GMP release, CoA, audit, QMS

Regulatory Submissions

- FDA, EMA, TGA, NMPA



Material Sciences

Polymorphism Studies

- Salt and polymorph screening
- Solid state characterization

Crystal Engineering

- Crystallization process R&D
- Scale up for APIs & INTs

Particle Size Control

Pre-formulation

Manufacturing

Representative Reactions

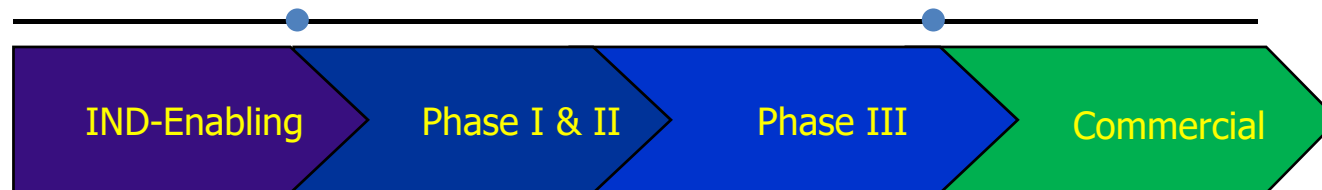
- Hydrogenations, organometallic couplings, cryogenic conditions, air & moisture sensitive reactions

Capacity

- >300 reactors
- Reactor size 20 L to 12,500 L

Process Qualification

Pharmaron Manufacturing Capability



Beijing GMP Kilo Lab	GMP intermediates, API
Ningbo GMP Pilot Plant	GMP intermediates, API
Hoddesdon UK	GMP intermediates, API
Tianjin Manufacturing Site	GMP intermediates, API
	Non GMP Starting Material, Intermediates
Shaoxing Manufacturing Site	GMP intermediates , API (Q4 2021)
	Non GMP Starting Material, Intermediates (Q4 2021)

Manufacturing Capacity Summary

	Beijing GMP Kilo Lab	Tianjin Site	Ningbo Site	Hoddesdon Site	Shaoxing Site
Reactor Sizes	20 - 300 L	63 - 8,000 L	20 - 500 L	20 - 1000 L	300-12,500 L
Total Capacity	2,430 L	175,863 L	22,900 L	4,580 L	634,800L
Cryogenic	Y	Y	Y	Y	Y
Hydrogenation	N	Y	Y	Y	Y
Non-GMP Product	Y	Y	Y	Y	Y
GMP Intermediates	Y	Y	Y	Y	Y
GMP API	Y	Y	Y	Y	Y

2 *Shaoxing Facility*



Shaoxing Facility



- Pharmaron Shaoxing located in a state-level economic and technological development zone in Shangyu (Shaoxing) with total land area of 250 mu (Chinese acres)
- Phase I construction started from August 2019
- First production campaign will be launched in 2021Q4