

ProBio at a Glance

Biologics Discovery

Antibody Lead Generation



- Hybridoma generation
- Single B cell screening
- Fully human antibody discovery by transgenic mice
- Human Fab naïve library

Antibody Lead Optimization



- Antibody humanization
- Antibody affinity maturation
- Fc engineering service
- Developability assessment

In Vitro Pharmacology



- Bispecific antibody bioassays
- Antibody internalization assay
- Immune checkpoint reporter assays
- Assay cell line development

In Vivo Pharmacology



- *In vivo* efficacy
- *In vivo* pharmacokinetics
- Toxicology study
- Biomarker analysis

Antibody & Protein Drug CDMO

Cell Line Development



- 10 weeks from DNA to top 6 clones
- Titer up to **15** g/L

IND-enabling CMC



- Experts in proteins & bispecific antibody
- **4** months from DNA to Tox batch production completion

GMP Manufacturing



- Comply with NMPA, FDA, EMA GMP regulations
- GMP manufacturing capacity: 22,600L (50L to 2000L bioreactors)

Fill & Finish



- Liquid injection
- Lyophilized powder
- Syringe
- Nasal spray

Cell & Gene Therapy CDMO

Customized Plasmid



- Raw material, intermediate, DS and DP for CGT, mRNA and DNA vaccine/drug
- Proprietary ProPlus™ process for linearized DNA
- Proprietary ProSyn™ platform for linearized DNA through cell-free technology

mRNA One-stop Solution



- Different RNA structures: mRNA, saRNA, circRNA
- RNA-tLNP one-stop solution for *in vivo* CAR-T
- Plasmid → linearized DNA → IVT-mRNA → LNP encapsulation
- Shorten project cycle from 10 months to **6** months

LVV One-stop Solution



- Licensed PowerA™-293T adherent cell line and proprietary PowerS™-293T suspension cell line
- **6**-month one-stop solution from plasmid to lentiviral vector

AAV One-stop Solution



- Suspension cell line (PowerS™-293)
- Proprietary PowerS™-ITRrs strain for AAV transfer plasmid

160+ Global IND Clearances

46

US FDA IND
Track Records

9

Korea MFDS IND
Track Records

2

EU EMA IND
Track Records

2

Japan PMDA IND
Track Records

5

Australia TGA IND
Track Records etc.

Global Layout

US Facilities

New Jersey GMP Manufacturing Capacity

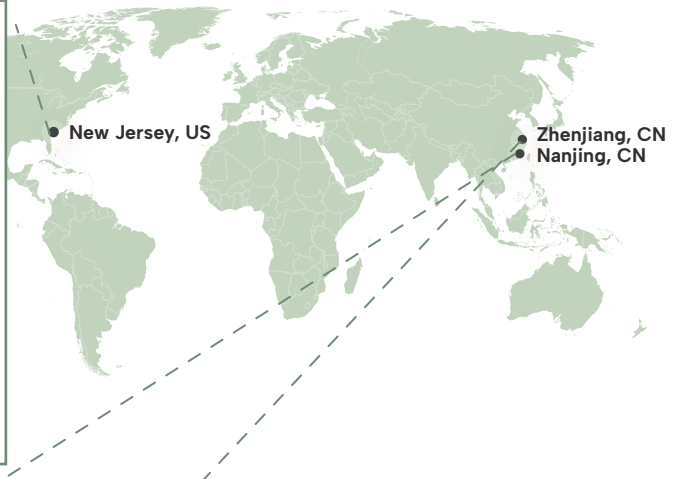


Plasmid Facility

- PD space: 3400 ft²
- 1 DSP+1USP: 2x3L; 2x10L glass vessel
30L single use fermenters
- GMP manufacturing space: 3500 ft²
- 1 USP & 1 DSP line: 30L single use fermenter

Virus Facility

- PD space: 4,000 ft²
- Bioreactor scale from Ambr250, 2L, 10L, 50L and 200L
- GMP manufacturing space: 4700 ft²
- Upstream: 2 x 200-L single use bioreactors



China Facilities

Biologics GMP Manufacturing Capacity



Bio-R&D Center

- Area: 8640m²
- Capacity: 2x50 L&2x200 L 24 batches/year



Bio-MFG Center

- Area: 10700m²
- Capacity: 4x200 L&3x500 L 80 batches/year



Commercial MFG Center

- Area: 22140m²
- Capacity: 19,800 L 126 batches/year

China Facilities

Advanced Therapies GMP Manufacturing Capacity



mRNA PD & GMP Center

- Area: 1600m²
- C+A, PD lab, GMP facility and Fill & Finish
- Scale: 40L IVT Bioreactor, ~10g LNP encapsulation



Plasmid GMP Center

- Area: 6800m²
- Capacity: GMP: 5 L-10 L-100 L-500L (planning)
- GMP: 30 L-300L (planning)



Plasmid and Virus R&D Center

- Area: 4800m²
- Adh.: 25CF10 Cell factory
- Sus.: 50 L-200 L single-use bioreactors



Viral Vector Center

- Area: 6400m²
- Adh.: 48 L& 96 L Cell factory
- Sus.: 50 L& 200 L single-use bioreactors