

## GMP Viral Vector Manufacturing

### ProBio Provides High-quality Viral Vector

Your programs are important, and your time is valuable. ProBio is a responsive and reliable CDMO partner of viral vector for pre-clinical, clinical and commercial use. We are ready to support you to deliver life changing therapies.

#### Viral vector

ProBio has proven experience with an extensive range of viral vector projects

- Lentiviral vector for cell therapy and gene therapy
- Retroviral vector for cell therapy
- AAV for gene therapy

#### Capability

Regardless of the virus of viral vector, you can count on reliable viral vector for pre-clinical, clinical and commercial uses with either adherent or suspension process

#### Capacity

Our viral vector facility has the capacity and state-of-the-art technologies to accelerate your gene or cell therapy development and manufacturing.

- 2,000 m<sup>2</sup> GMP cleanroom suites at Grade A and C, BSL-2
- Adherent viral vector production: Up to 96L
- Suspension single use bioreactor: Up to 200L
- F&F Speed up to 2,400 vials per hour (2R/6R/15R)
- GMP suites specifically designed for maximum productivity and efficient production

### Integrated One-stop CDMO Solution: Preclinical to GMP Manufacturing



4-month IND ready



Crude titer up to 1E+8TU/ml

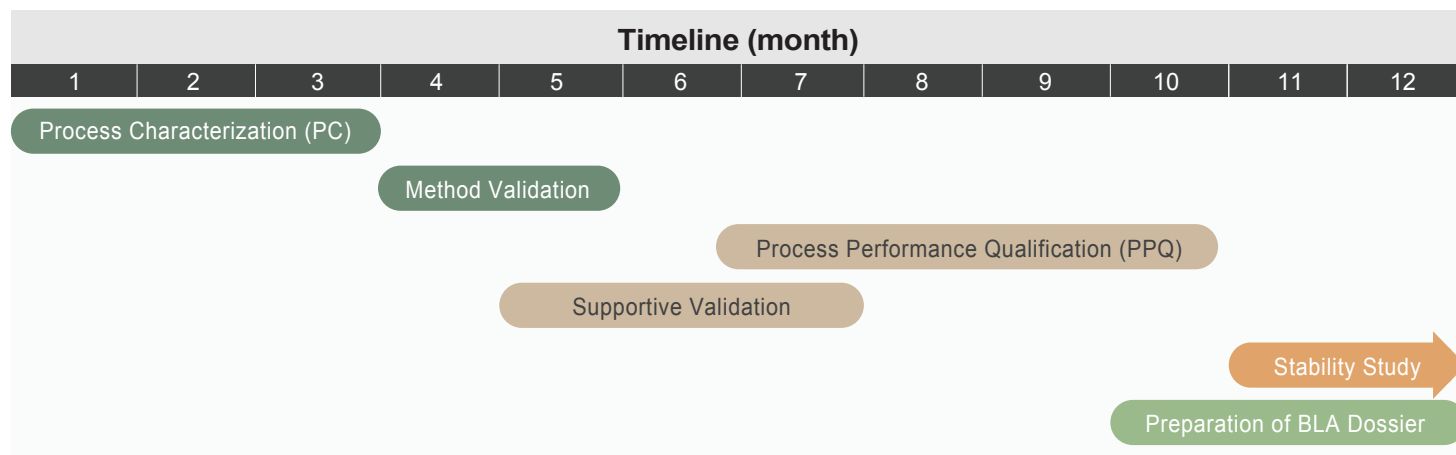
Pre-Clinical		Clinical		BLA/Commercial	
Pre-IND	IND-Enabling	Early Clinical	Late Clinical	BLA	GMP
<ul style="list-style-type: none"> <li>• LVV packaging: LentiHelper™ plasmid and PowerSTM-293T cell line with FDA DMF</li> <li>• AAV packaging: AAssistV™ plasmid and PowerSTM-293 cell line with FDA DMF</li> <li>• RVV packaging system</li> <li>• PCB/MCB/WCB</li> <li>• Process development</li> <li>• Analytical method development</li> <li>• Stability study</li> <li>• Demo run/engineering run/GMP run</li> </ul>		<ul style="list-style-type: none"> <li>• Starting material manufacturing</li> <li>• Drug substance manufacturing</li> <li>• Drug product manufacturing</li> <li>• QC release</li> <li>• Stability study</li> </ul>		<ul style="list-style-type: none"> <li>• Process characterization</li> <li>• Analytic method validation</li> <li>• Process validation including PPQ</li> <li>• Starting material GMP manufacturing</li> <li>• Drug substance GMP manufacturing</li> <li>• Drug product GMP manufacturing</li> <li>• QC release</li> <li>• Stability study</li> </ul>	

Pro Viral Vector

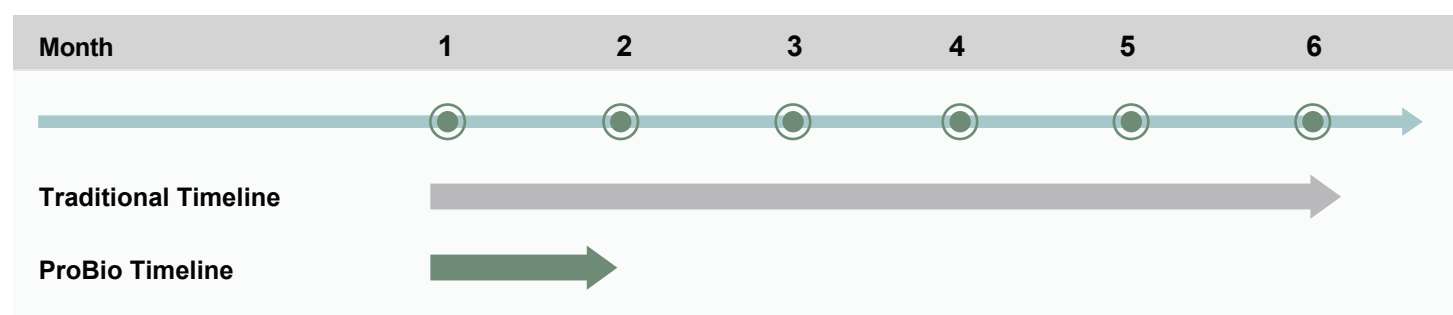
Clinical GMP Viral Vector

GMP Viral Vector

## BLA PC/PV Study: 10~12 Months



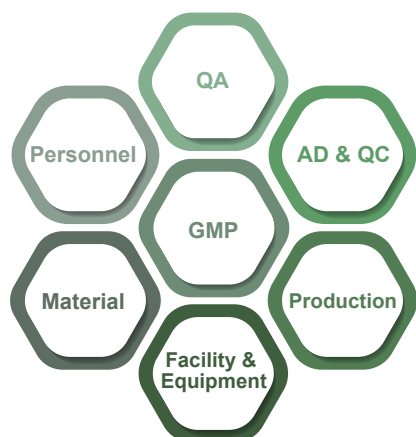
## GMP Viral Vector Manufacturing: 6~8 Weeks



## Quality Management System: 90+ Audits with 100% Satisfaction

Follow ICH/FDA/EMA/NMPA/WHO Guidelines  
Comply with the GMP Regulations of FDA/EU/NMPA

Customer Quality Verification (CQV)



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