



# Prestige BioPharma

*The new innovations of mAb biosimilars and antibody  
therapeutics – Our dedication to human health*

## “A Frontier in Biopharmaceuticals”

### Prestige Group

Founded in 2005, comprises of Prestige BioPharma Singapore, Prestige BioPharma R&D Singapore, and PrestigeBio Pharmaceuticals Korea. With decades of R&D and operational experience in drug discovery, Prestige expedites future biologics development and commercialization in a concerted approach based on its proprietary technologies and scientific capabilities. Prestige has been recognized as one of the most competitive and fastest growing players in the global biopharmaceutical industry. As such, Prestige strives to bring innovations into mAb biologics development and manufacturing.

Prestige primarily focuses on oncology and immune disorders; developing biosimilars and new antibody drugs for cancer, arthritis, and other diseases. The efforts to enhance safety, efficacy, and affordability of existing antibody therapeutics align with the goal to address the unmet medical needs in oncology.



#### HEADQUARTERS

- Biosimilar/biologic drug R&D
- Clinical development & regulatory registration
- Pipeline acquisition & licensing
- Pharmaceutical IP partnering & commercialization



#### R & D

- Worldwide GLP compliance and AAALAC accredited international standard facilities
- Discovery & regulatory preclinical research
- Biologics assay development & validation
- Extended biologics characterization

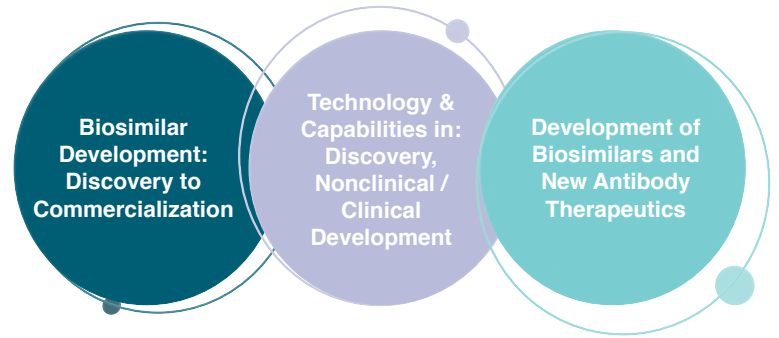


#### GMP MANUFACTURING

- Dedicated manufacturing for PBP mAbs
- Global GMP compliance
- Cell engineering & process development
- Batch testing/QA/QC
- Total capacity of 46,000L in the single-use system

#### Global Offices

- Prestige BioPharma Headquarters, Singapore Science Park, Singapore
- Prestige R&D Lab, Centros, Biopolis, Singapore
- PrestigeBio Pharmaceuticals Co., Ltd, Biopolis, Osong, South Korea
- Prestige BioPharma Belgium Bvba, European branch of PBP
- Prestige BioPharma Australia Pty Ltd, Australian branch of PBP



## Technology

### Cell Biology

Antibody target discovery and validation

Construction of recombinant vectors and cell lines for antibody production

Cell bank screening

Process development for cultivation, purification, and productivity enhancement

Antibody dependent cytotoxicity assay (ADCC)

Complement dependent cytotoxicity assay (CDC)

Apoptotic assay

Anti-proliferation assay

Target specific cell based assays

Fc/FcRn binding assays

Binding affinity to complement (C1q)

Binding affinity with agonist or target protein

### BioAnalysis

Process related impurity assay (ELISA, Threshold, Q-PCR)

Chromatographic analysis: RP-HPLC, ion exchange, and size exclusion HPLC

Gel electrophoresis: SDS-PAGE, CE-SDS

Formulation analysis: HPLC, ELISA, LCMS/MS

Pharmacokinetic and toxicokinetic analysis: ELISA, LCMS/MS

Analytical method development and validation (GLP)

Anti-drug antibody (ADA) assay

Neutralizing antibody assay

### Protein / Antibody Extended Characterization

Total mass spectrometry analysis

N-terminal sequencing

C-terminal sequencing

Peptide mapping

Amino acid composition

Disulphide bonds: Reducing/Non-reducing

Monosaccharide composition

N-glycan profiling

UV spectroscopy analysis for structural comparability

Fluorescence spectroscopy analysis for protein tertiary structure

Circular dichroism for predicting secondary structure of proteins

### NonClinical Study

Efficacy studies

Pharmacokinetic studies

Rodent/non-rodent and non-human primate toxicology and toxicokinetic studies

### Quality Assurance

OECD and U.S. FDA GLP compliance for in-house and outsourced GLP studies

Worldwide GMP compliance



## The novel journey of mAb biosimilars and new antibody drugs

Everyday we are one step closer to freeing mankind from devastating diseases



**TUZNUE®**  
Trastuzumab  
(HD201)



**VASFORDA™**  
Bevacizumab  
(HD204)

## Development Pipelines

Prestige's current biosimilar portfolio includes HD201 (Trastuzumab), HD204 (Bevacizumab), and PBP1502 (Adalimumab), in nonclinical to advanced clinical development stages. Based on the technologies and capabilities established from the successful development of these biosimilars, the next tier of biosimilars as well as new antibody therapeutics is under development.

Category	Drug	Indication	Development Stage
Biosimilar, Trastuzumab	HD201	Breast Cancer, Gastric Cancer	Phase III
Biosimilar, Bevacizumab	HD204	Solid Tumors	Phase I / III
Biosimilar, Adalimumab	PBP1502	Arthritis	Preclinical / Phase I
First-In-Class Antibody anti-PAUF	PBP1510	Pancreatic Cancer	Preclinical / Phase I
Biosimilar, Denosumab	PBP1601	Bone Loss, Osteoporosis	Preclinical
Biosimilar, Aflibercept	PBP1602	Macular Edema, Metastatic Colorectal Cancer, Retinopathy	Preclinical
Biosimilar, Eculizumab	PBP1603	Atypical Haemolytic Uremic Syndrome, Paroxysmal Nocturnal Hemoglobinuria	Discovery
Biosimilar, Ipilimumab	PBP1701	Metastatic Melanoma, Unresectable Melanoma	Discovery
First-In-Class Antibody	PBP1710	Solid Tumors	Discovery

## Patented Technology

Prestige's patented technologies enable the production of high quality, high-yield antibodies at a lower cost. This includes high-efficiency antibody expression vector and non-Protein A purification technology.

### Bicistronic Expression Vector

Platform technology for antibody producing expression vector enabling production of quality antibodies at a higher yield

### Sugar Content Control

Control of glycosylation by specific additives enabling modulation of biosimilarity and efficacy related with fucosylation

### Non-Protein A Purification

Platform technology for antibody purification that can significantly reduce the cost of production and increase product safety via non-Protein A method





## **Mission**

*to be the innovator in global biopharmaceuticals with cutting edge antibody drugs*

## **Our Promise**

*to provide access to superior quality biomedicine at economical prices and new cures for cancer*

## **Core Values**

*Pathfinder, Solution Provider, Faithfulness, Harmonizer*



*State-of-the-Art Smart Factory  
for GMP Manufacturing  
in the Heart of the Central  
Scientific Hub*

Campus I



Campus II



Campus II



## Dedicated GMP Manufacturing Facility

PrestigeBio Pharmaceuticals (Korea) serves as the dedicated and exclusive manufacturing partner for all of Prestige's development pipelines

### Location

Campus I : 197, Osong Saengmyeong 1-ro, Heungdeok-gu, Cheongju, Chungbuk, Republic of Korea

Campus II : Lot# 2-4 Biopolis (Osong II), Heungdeok-gu, Cheongju, Chungbuk, Republic of Korea

### Production Capacities

- > Campus I : 6,000L
- > Campus II : 40,000L
- > Total : 46,000L





**Headquarters**

2 Science Park Drive #04-13/14, Ascent Tower B  
Singapore Science Park, Singapore 118222

**R&D Lab**

20 Biopolis Way, #05-01, Centros  
Biopolis, Singapore 138668

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