Prestige BioPharma

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

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.

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

**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

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

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