

# Toyobo Biologics Acquires High-Efficiency Production Technology for Antibody Drugs

Toyobo subsidiary Toyobo Biologics Inc. ("TBI"), on August 15, 2011, concluded a partnership agreement with the U.S. firm Catalent Pharma Solutions, Inc. ("Catalent") to expand its contracted development and manufacture of antibody drugs and other biologics using Catalent's exclusive GPEx<sup>®</sup> technology.

\* GPEx<sup>®</sup> is a registered trademarks of Catalent.

# 1. Background to the Partnership Agreement

The market for antibody drugs<sup>1</sup> as a treatment for cancer, rheumatism and other conditions has grown rapidly in recent years, exceeding three trillion yen globally. Since antibody drugs offer exceptional efficacy with few side effects, the market is expected to expand further going forward. The market for biosimilar<sup>2</sup> antibody drugs is also expected to grow.

TBI focused on Catalent's cell line development technologies, which are the basis for producing antibody drugs. The company decided to conclude the partnership agreement with Catalent in order to enhance its contracted production of biologics using its 4,000-liter cultivation tank, the largest in Japan.



#### Notes

- <sup>1</sup> Biologics are medicinal products composed mainly of a type of protein. Unlike organic synthetic drugs, biologics are proteins found naturally in the human body, and so have the advantage of fewer side effects.
- <sup>2</sup> Biosimilars, or "follow-on biologics," is a general term for drugs that are versions of innovator biologics with the same efficacy as the innovator, developed after the expiry of rights for the innovator product.

# 2. About GPEx® Technology

GPEx<sup>®</sup> is a technology to quickly develop mammalian cell lines (Master Cell Bank<sup>3</sup>) for stable and high-efficiency production of proteins and other antibody drugs. This exclusive technology held by Catalent has been used in the production of more than 200 different antibodies and more than 60 recombinant proteins worldwide.

#### Notes

<sup>&</sup>lt;sup>3</sup>The Master Cell Bank is the cell line from which all production cells are produced. In

general the cells are created during the research stage, and have a genetic makeup that demonstrates sufficient stability within a defined range of successive culture.

#### 3. Future Business Directions

Going forward, by combining Catalent's cell line development technology and TBI's cell cultivation technology, we aim to establish a development and manufacturing structure for competitive, highly efficient production of cell lines, and to expand contracted production of biologics worldwide.

#### 4. Reference

## Overview of Toyobo Biologics Inc.

Head Office: 2-8, Dojima Hama 2-chome, Kita-ku, Osaka, Japan

Established: November 15, 2001 Capital: 100 million JPY

Representative: Yukihiro Sogabe

Toyobo Biologics, Inc. (TBI) was established as standalone entity in November 2001, spun off from the pharmaceuticals division of Toyobo Co., Ltd. which had been involved in development of biopharmaceuticals using the cell culture technology of recombinant mammalian cells. Now TBI has become a leading company in Japan, entrusted with the manufacturing of biopharmaceuticals under GMP. TBI has extensive experience with a wide range of cell types and protein drug candidates such as antibodies and biosimilars.

www.toyobobiologics.com/index e.html

### Overview of Catalent Pharma Solutions, Inc.

Head Office: 14 Schoolhouse Road, Somerset, NJ 08873, USA

Established: 1996

Revenue: US\$ 1.7 billion

Representative: John Chiminski (President & CEO)

From drug and biologic development services to delivery technologies to supply solutions, Catalent Pharma Solutions has the deepest expertise, the broadest offerings and the most unique technologies in the industry. With over 75 years of experience, Catalent helps customers get more molecules to market faster, enhance product performance, and provide superior, reliable manufacturing and packaging solutions. Catalent employs approximately 8,000 people at 24 facilities worldwide and in fiscal year 2010 generated more than \$1.7 billion in annual revenue. <a href="https://www.catalent.com">www.catalent.com</a>

more products. better treatments. reliably supplied.™

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