



March 12, 2020  
PeptiDream Inc.  
Mitsubishi Corporation

## **Establishment of PeptiGrowth Inc. for Development and Commercialization of Peptide Alternatives to Growth Factors for Cell Culture**

TOKYO and KANAGAWA, JAPAN – March 12<sup>th</sup>, 2020 – PeptiDream Inc. (PeptiDream) and Mitsubishi Corporation (MC) have agreed to establish a joint venture company that will develop, produce and sell peptide<sup>\*1</sup> alternatives to growth factors, key ingredients of cell culture<sup>\*2</sup> used in the manufacturing of cell therapy, regenerative medicines and other biopharmaceuticals .

The joint venture, PeptiGrowth Inc. (PeptiGrowth), will be owned 60.5% by MC and 39.5% by PeptiDream. The Company will leverage expertise and know-hows of both parent companies to work towards the advancement of cell therapy, regenerative medicines and other biopharmaceuticals in the pharmaceutical industry.

Growth factors are a class of proteins that are widely present in humans and other animals. In addition to playing an important role in cell growth and proliferation, it is crucially involved in induction of differentiation of stem cells (iPS cells, ES cells, etc.) into nerve, blood, and other types of cells. Currently, growth factors are mainly extracted from animal serum or produced by gene recombination technology, however, their production presents a number of challenges to the pharmaceutical industry, including safety risks due to contamination with impurities, variation in quality among production lots, and high production costs.

PeptiGrowth will utilize PeptiDream's proprietary drug discovery platform system, PDPS (Peptide Discovery Platform System), to identify alternative peptides that perform the equivalent function as growth factors, and develop a new chemical synthesis method that does not use animal serum or gene recombination technology. In addition, by establishing a commercial manufacturing process and system, PeptiGrowth will achieve high purity, less variation among production lots in terms of specification and quality, with lower costs. Dozens of growth factors have been identified to date, and in order to realize a completely Xeno-Free culture medium<sup>\*3</sup>, multiple growth factors need to be replaced with chemically synthesized alternative compounds. This is a world-first in terms of the comprehensive development of chemically synthesized, peptide alternatives to multiple growth factors, and both MC and PeptiDream believe such an initiative to realize the peptide alternatives to multiple growth

factors is essential for further advancement of cell therapy and regenerative medicines in the industry.

MC will assign officers for key management positions, including the CEO of PeptiGrowth. The new company will fully leverage the advantage of the MC Group's global network and its broad customer base to enhance marketing and sales functions, which will lead to a faster growth of alternative peptides market globally. This will also help to address challenges of the industry and contribute to further advancement of cell therapy and regenerative medicines.

\*<sup>1</sup> Short chains of approximately 50 or fewer amino acids and linked by peptide bonds.

\*<sup>2</sup> A liquid or solid that contains the nutrients needed to grow cells outside the body. It is mainly composed of growth factors, amino acids, sugars, and minerals.

\*<sup>3</sup> Optimal medium for cell growth and proliferation, devoid of animal except human-derived components.

<For reference>

PeptiDream Inc.

Established : July, 2006  
Head Office : 3-25-23 Tonomachi, Kawasaki-ku, Kawasaki City, Kanagawa  
Representative : Patrick C. Reid (President)  
Capital : 3,930 million yen  
Description : A bio-venture company originated from the University of Tokyo. PeptiDream has more than a hundred of drug discovery and development programs based on its unique proprietary Peptide Discovery Platform System (PDPS), including both its in-house and those in partnerships with Japanese and multi-national pharmaceutical companies.

Mitsubishi Corporation

Established : July, 1954  
Head office : 3-1, Marunouchi 2-Chome, Chiyoda-ku, Tokyo  
Representative : Takehiko Kakiuchi (President and Chief Executive Officer)  
Capital : 204,446 million yen  
Main operations : Organized into 10 Business Groups: Natural Gas, Industrial Materials, Petroleum & Chemicals, Mineral Resources, Industrial Infrastructure, Automotive & Mobility, Food Industry, Consumer Industry, Power Solution, and Urban Development.

PeptiGrowth Inc.

Founded : April, 2020  
Ownership : Mitsubishi Corporation 60.5%, PeptiDream Inc. 39.5%

<Enquiries>

PeptiDream Inc.  
Mie Yamazaki / IR & Public Affairs  
EMAIL: [m-yamazaki@peptidream.com](mailto:m-yamazaki@peptidream.com)

Mitsubishi Corporation  
Medium Team, Public Relations Division  
TEL: +81-3-3210-2171 / FAX: +81-3-5252-7705