

January 29th, 2025

Orizuru Therapeutics, Inc.

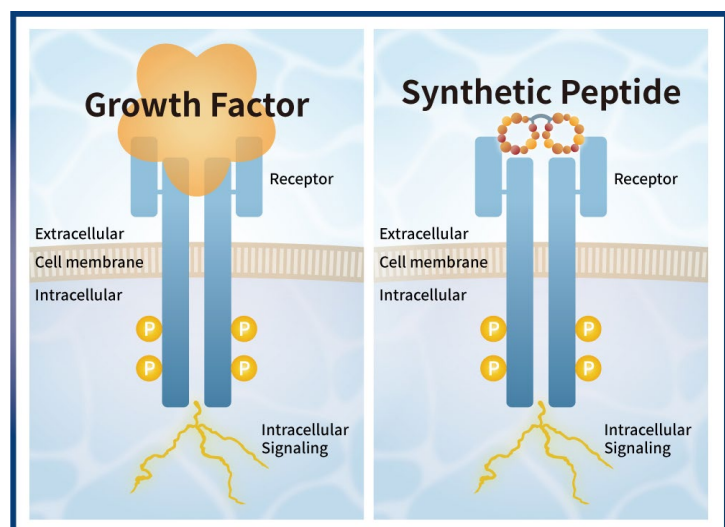
PeptiGrowth Inc.

**Innovative Functional Peptides Successfully Co-Developed as Alternatives to Growth Factors Used in the Manufacturing of Regenerative Medicine Products**

Orizuru Therapeutics, Inc. (OZTx), a Japanese biotechnology company focusing on the research and development of iPSC-derived regenerative medicine, and PeptiGrowth Inc. (PeptiGrowth), a Japanese biotechnology company specializing in the development of synthetic peptide based growth factors, are pleased to announce the successful completion of the joint development project (first announced on August 23, 2023) for chemically synthesized peptide as an alternative to specific recombinant growth factors used in the manufacturing of regenerative medicine products developed by OZTx. The developed peptide was confirmed to bind to cellular receptors in a manner similar to the respective recombinant growth factor, inducing phosphorylation and signaling within the cells, thereby triggering differentiation and proliferation of iPSCs.

OZTx is focused on the social implementation of cell therapy products and innovative iPSC-related technologies (platform innovations). The company is engaged in the research and development of regenerative medicine using iPSC-derived cardiomyocytes and pancreatic islet cells, as well as supporting the commercialization of development-stage candidates through collaborations with other businesses and academic institutions.

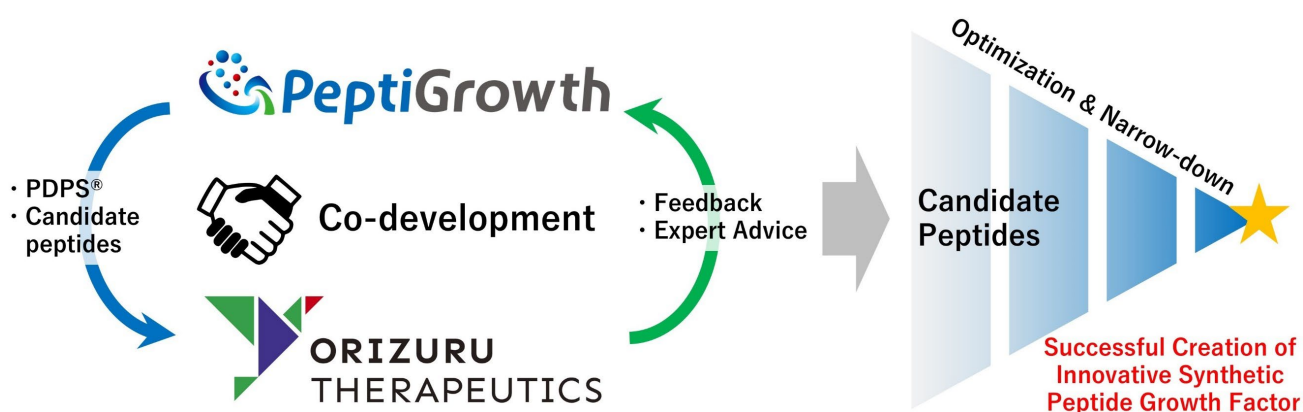
PeptiGrowth, leveraging the innovative peptide discovery technology PDPS® (Peptide Discovery Platform System) developed by PeptiDream Inc. (Headquarters: Kawasaki City, Kanagawa), is working on the development of "Synthetic Peptide Growth Factors". By addressing the challenges associated with conventional products, such as high manufacturing costs, low stability, variability between



manufacturing lots, and issues related to biological material contamination. PeptiGrowth aims to contribute to the further spread and expansion of the regenerative medicine and cell therapy industries.

In this joint development project, PeptiGrowth utilized its unique drug discovery screening technology based on PeptiDream's PDPS® platform, along with its advanced peptide synthesis techniques and expertise, to create multiple candidate peptides with finely tuned affinities for target cell receptors and optimized intracellular signaling intensities. These peptide growth factors were then provided to OZTx.

OZTx, using an evaluation system based on iPSC-derived differentiated cells developed with their innovative technologies, assessed the survival rates and functionality of differentiated cells at each stage of differentiation to narrow down the optimal peptide candidates. Both companies worked closely together, continuously refining the optimization and evaluation processes, and succeeded in developing an innovative growth factor alternative peptide with nearly the same functionality as respective growth factor in terms of cellular proliferation and differentiation, while improving physiological activity, chemical stability, and solubility.



By using the newly developed synthetic peptide growth factor, we anticipate significant reductions in manufacturing costs. Moreover, concerns related to quality variations between manufacturing lots, which have been challenges with traditional recombinant growth factors, are now alleviated. This will lead to improved economic efficiency and productivity at OZTx. This achievement is the result of support from Kyoto University in the Translational Research grant, AMED (Research Topic: Development of iPSC cell-derived pancreatic islet cell (iPIC) therapy for type 1 diabetes).

Kenji Nonaka, President & CEO of Orizuru Therapeutics, stated, "*Through our joint development with PeptiGrowth, which possesses exceptional technical expertise, we have successfully created a novel synthetic peptide growth factor. We hope that by leveraging this innovative peptide, we can develop a cost-effective regenerative medicine product that can be practically applied in clinical settings. This will play a key role in advancing the social implementation of iPSC technology, a goal our company is committed to achieving.*"

Jiro Sugimoto, President & CEO of PeptiGrowth, expressed, "*It is a great pleasure to have successfully developed an innovative synthetic peptide growth factor in collaboration with Orizuru Therapeutics, a leading company in regenerative medicine research and development using iPSCs, in less than a year and a half. I sincerely hope that this product, developed with Japan's cutting-edge technology, will be widely adopted in global markets and help address key challenges within the industry.*"

#### **About Orizuru Therapeutics, Inc.**

Name : Orizuru Therapeutics, Inc.

Founded : April 9<sup>th</sup>, 2021

Address : 2-26-1 Muraoka-higashi, Fujisawa-shi, Kanagawa, 251-8555 Japan

President : Kenji Nonaka

Business : OZTx, founded in April 2021 by Kyoto University Innovation Capital Co., Ltd., is steadfast in its dedication to bringing hope for better health through the infinite power of science. To deliver cell therapies to patients, the company promotes wide use of cell therapy products and innovative iPSC-related technology through the following activities:

1. Development of regenerative medical products through cell transplantation
2. Support for drug discovery research and development of regenerative medicine research platform using iPSC-related technology

For more information, please visit <https://orizuru-therapeutics.com/en/>

#### **About PeptiGrowth Inc.**

Name : PeptiGrowth Inc.

Founded : April 1st, 2020

Address : 6-1, Marunouchi 2-Chome, Chiyoda-ku, Tokyo, 100-8086, Japan

President : Jiro Sugimoto

Business : Conventional growth factors and cytokines used in the manufacturing of regenerative medicine and cell therapy products are facing various challenges such as lot-to-lot quality variation, potential contamination with biological impurities, low stability, and high cost. PeptiGrowth was established as a joint venture between Mitsubishi Corporation and PeptiDream Inc. with the mission to address and solve those challenges that regenerative medicine and cell therapy industry is facing. PeptiGrowth has been working on the development of a series of synthetic peptides that have the same functions as conventional growth factors and cytokines. Its peptides are completely chemically synthesized and animal component-free.

We have successfully launched 11 products, including the FGF2 alternative peptide introduced in October

2024, and are planning to release growth factor substitute peptides with equivalent functions to PDGF-AA and IL-15 in 2025.

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