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ChromaJean, Inc.  
<https://chromajeans.com>

PeptiDream Inc.  
<https://www.peptidream.com/>  
(Securities Code: 4587 TSE 1<sup>st</sup> Section)

## **ChromaJean and PeptiDream Develop an Automated Peptide Separation and Purification Platform to Streamline the Purification Process and Reduce Cost**

ChromaJean, Inc. (President and CEO: Katsuhiko Miwa; Head Office: Kanagawa Prefecture, Japan; "ChromaJean") and PeptiDream Inc. (President and CEO: Patrick C. Reid; Head Office: Kanagawa Prefecture, Japan; "PeptiDream"), a leader in peptide drug discovery by utilizing its proprietary PDPS (Peptide Discovery Platform System), have developed an automated peptide separation and purification platform to achieve high efficiency and cost effectiveness of the purification processes, under a strategic partnership between the companies.

The conventional peptide purification process uses chromatography technology that requires many time-consuming steps and human resources due to the great physical diversity and unique molecular structures of peptides. The recent collaboration between ChromaJean and PeptiDream has used ChromaJean's original chromatography technology platform and algorithms to realize a new automated platform for peptide separation and purification. The new platform includes the following elements.

1. Standardizing hardware used in peptide purification
2. Development of software to optimize purification conditions
3. Development of software to automatically monitor the equipment's operating status
4. Standardizing workflow in the platform (SOP)

The platform for peptide purification processes automates much of the work and streamlines personnel and device operation hours needed for the process to approximately one tenth of the original requirement. At the same time, it successfully delivered highly reproducible results. In addition, this makes nighttime unattended operation possible. Under the two companies' strategic partnership, we will continue to expand ChromaJean's platform technology of separation and purification into mid-size molecules (e.g., nucleic acid, conjugate compounds) and contribute to continuously improving throughput of R&D processes.

[Comment from Katsuhiko Miwa, president of ChromaJean, Inc.]

"I am very happy to have achieved full automation of the separation and purification of macrocyclic peptides, something that is very difficult to do, through cooperation with PeptiDream. The aim of the two companies' strategic partnership has been achieved. This is also a big step forward in improving the productivity of the peptide purification process which has been a long-time challenge for us. This technology, which has been collaboratively developed by the two companies, will be commercialized in the near future so that it can be extensively applied to peptide drug discovery and research."

[Comment from Keiichi Masuya Ph.D., Executive Vice President of PeptiDream Inc.]

“We are excited that the strategic partnership with ChromaJean greatly streamlined our peptide purification processes through the establishment and automation of a platform in terms of separation and purification of macrocyclic peptides. The streamlining of separation and purification was one of the most important points in optimization of the entire process for drug discovery and research which PeptiDream is working on. We will achieve more technological breakthroughs by applying the platform to mid-size molecules such as PDCs (peptide-drug conjugates), a recent area of focus for PeptiDream.”

**About ChromaJean, Inc.**

ChromaJean was established in July 2017 as part of the EVP (Entrepreneurship Venture Program) initiative of Takeda Pharmaceutical Company Limited. Based in Shonan iPark, ChromaJean aims to contribute to the research and development of medicinal drugs in the preclinical and early development stages and offers value to science and society by providing SMART Purification based on chromatography with the company’s original algorithm.

**About PeptiDream Inc.**

PeptiDream Inc. is a public (TSE: 4587) biopharmaceutical company founded in 2006 employing its proprietary Peptide Discovery Platform System (PDPS), a state-of-the-art highly versatile discovery platform which enables the production of highly diverse (trillions) non-standard peptide libraries with high efficiency, for the identification of highly potent and selective hit candidates, which then can be developed into peptide-based, small molecule-based or peptide-drug conjugate therapeutics. PeptiDream aspires to be a world leader in drug discovery and development to address unmet medical needs and improve the quality of life of patients worldwide. For further information, please visit <https://www.peptidream.com>.

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