



Juntendo University



Press Release

Juntendo University and Astellas Establish "Direct Reprogramming Regenerative Medicine Course" for Scientific Breakthroughs

TOKYO, October 1, 2021 - Juntendo University (President: Hajime Arai, M.D., Ph.D.) and Astellas Pharma Inc. (TSE: 4503, President and CEO: Kenji Yasukawa, Ph.D., "Astellas") today announced that the parties have established, inside Juntendo University Graduate School of Medicine, a joint research course entitled, "Direct Reprogramming Regenerative Medicine Course" (Professor & Director, Diagnostics and Therapeutics of Interactable Diseases, Intractable Disease Research Center, Genome Medical Center: Yasushi Okazaki M.D., Ph.D., Specially Appointed Professor: Masahito Matsumoto, Ph.D.). The course will be retained for a term of three years from October 2021.

This joint research course aims to create a new modality that maximizes the therapeutic effect for diseases with high unmet medical needs, such as type 1 diabetes, by direct reprogramming using the K factor*¹. It will also conduct research to expand this modality to other diseases. Juntendo University Graduate School of Medicine will be acquiring the basic data including the study of the optimal combination of direct reprogramming factors that include the K factor, and Astellas will be conducting the applied research for disease treatment by gene therapy using this factor and selection of the optimal modality.

Direct reprogramming is a biology that directly converts the fate of cells without passing through the pluripotent state. The technology that enables direct reprogramming in vivo has attracted attention as a new regenerative medicine technology. Unlike conventional therapies, direct reprogramming not only removes unwanted cells or replenishes necessary cells; it also converts unnecessary cells into necessary cells. It is therefore expected to show high efficacy against intractable diseases that have been thought to be incurable.

Juntendo University and Astellas have been conducting joint research collaboration on the establishment of differentiation methods for therapeutic cells by direct reprogramming based on the agreement executed in 2018. This time, as part of this joint research collaboration, the two parties have established this joint research

course to further strengthen the partnership and progressively conduct research on direct reprogramming as a new therapeutic paradigm.

Through this joint research course, Juntendo University and Astellas will take on the challenge of drug discovery based on direct reprogramming technology, with the aim of providing patients with new treatment options.

***1 K factor:** K factor is a gene that significantly enhances the efficiency of direct reprogramming

About Juntendo University

The mission of Juntendo University is to strive for advances in society through education, research, and healthcare. To accomplish this mission, based on the Japanese idiom “Sanmu Syugi”, Juntendo University accepts anyone regardless of their gender, nationality, or academic background who embodies the university motto “Jin – I exist as you exist” and the principle of “Fudan Zenshin - Continuously Moving Forward”. By creating an environment that focuses on how improvements may be made in the future Juntendo University helps highly motivated individuals who care for others become healthcare professionals patients can believe in, scientists capable of innovative discoveries and inventions, and global citizens ready to serve society.

For more information about Juntendo University, please visit <https://www.juntendo.ac.jp/>

About Astellas

Astellas Pharma Inc. is a pharmaceutical company conducting business in more than 70 countries around the world. We are promoting the Focus Area Approach that is designed to identify opportunities for the continuous creation of new drugs to address diseases with high unmet medical needs by focusing on Biology and Modality. Furthermore, we are also looking beyond our foundational Rx focus to create Rx+[®] healthcare solutions that combine our expertise and knowledge with cutting-edge technology in different fields of external partners. Through these efforts, Astellas stands on the forefront of healthcare change to turn innovative science into value for patients. For more information, please visit our website at <https://www.astellas.com/en>.

Cautionary Notes (Astellas)

In this press release, statements made with respect to current plans, estimates, strategies and beliefs and other statements that are not historical facts are forward-looking statements about the future performance of Astellas. These statements are based on management’s current assumptions and beliefs in light of the information currently available to it and involve known and unknown risks and uncertainties. A number of factors could cause actual results to differ materially from those discussed in the forward-looking statements. Such factors include, but are not limited to: (i) changes in general economic conditions and in laws and regulations, relating to pharmaceutical markets, (ii) currency exchange rate fluctuations, (iii) delays in new product launches, (iv) the inability of Astellas to market existing and new products effectively, (v) the inability of Astellas to continue to effectively research and develop products accepted by customers in highly competitive markets, and (vi) infringements of Astellas’ intellectual property rights by third parties.

Information about pharmaceutical products (including products currently in development) which is included in this press release is not intended to constitute an advertisement or medical advice.

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