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Astellas partners with Yaskawa to create innovative cell therapy ecosystem in Japan

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To focus on digitising cell manufacturing processes through robotics technology

Astellas Pharma Inc. has signed a Memorandum of Understanding (MoU) with Yaskawa Electric Corporation to begin discussions on the creation of an innovative cell therapy ecosystem through the integration of pharmaceutical and robotics technologies. This MoU is legally non-binding and will lead to further specific discussions between the two companies in the future.

The complexity of product manufacturing is a significant challenge to commercialising cell therapy. Substantial investments are required to develop complex manufacturing processes, transfer technology among manufacturers, and establish large-scale manufacturing facilities for commercialisation. This makes it difficult for startups and academia to commercialise cell therapy independently.

Since the end of 2017, Astellas has been advancing drug discovery and manufacturing technology research in cell therapy through the introduction of the humanoid robot 'Maholo', developed by the Robotic Biology Institute, a subsidiary of Yaskawa.

Under the terms of the MoU, the companies will begin discussions to potentially develop a platform that may seamlessly link early-stage research to commercialisation, utilising the state-of-the-art Maholo robot to manufacture high-quality products and shorten the R&D period of cell therapy.

Furthermore, the companies would consider the possibility of potentially offering the use of the platform to startups and academia, aiming to develop an advanced cell therapy ecosystem that may enable the discovery and nurturing of innovation while potentially reducing investment in investigational drug manufacturing based on the Pharmaceutical and Medical Device Act.

Astellas would provide cell manufacturing technology, clinical development and regulatory insights related to cell therapy, while Yaskawa would provide and develop state-of-the-art robotics and factory automation technologies.