

AstraZeneca partners with Japanese startup United Immunity for drug delivery tech research

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To develop next-generation lipid nanoparticles for selective delivery of nucleic acids



AstraZeneca K.K. and United Immunity have signed an agreement for joint research on next-generation lipid nanoparticles for selective delivery of nucleic acid drugs such as mRNA to immune cells. In this research, British pharmaceutical firm AstraZeneca will work with United Immunity to evaluate and promote a new drug delivery technology originating in Japan.

As shown by the COVID-19 vaccine, nucleic acid drugs such as mRNA are attracting attention as next-generation medicines for diseases that are difficult to treat with conventional methods.

AstraZeneca is developing nucleic acid drugs in multiple disease areas and is researching ways to improve the selectivity and safety of nucleic acid delivery through new technologies.

Japanese startup United Immunity is conducting research and development of immune cell-selective lipid nanoparticles (Myeloid Targeting Platform), which enables nucleic acid drugs to be delivered directly to specific immune cells and treatment sites, and is expected to achieve better therapeutic effects while minimizing the impact on healthy cells.

Regarding this agreement, AstraZeneca Executive Officer and Head of Research and Development, Tomoko Otsu, said, "AstraZeneca is also developing nucleic acid medicines for diseases such as transthyretin amyloidosis (ATTR). We hope that this research will create synergy between United Immunity's Japanese technology and AstraZeneca's expertise in this field, further accelerating the development of innovative nucleic acid medicines."

Masato Kishida, President and CEO of United Immunity, said, "We aim to create groundbreaking medicines using technology that selectively delivers nucleic acids such as mRNA to specific immune cells and tissues, such as macrophages. By combining the technologies of both companies with AstraZeneca's discerning eye and R&D capabilities, we hope to create even more groundbreaking pharmaceutical platform technology and bring therapeutic benefits to patients."