

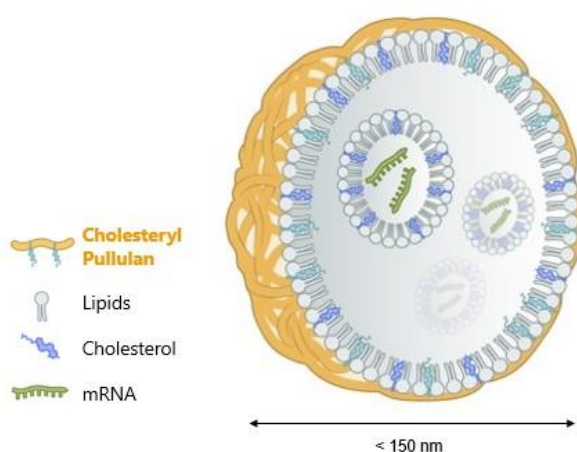
The Japanese Patent Office Has Granted a Fundamental Patent Related to United Immunity's PEG-Free Pullulan-based Lipid Nanoparticle

Tokyo, Japan, December 9, 2024 - United Immunity, Co., Ltd., a Japanese biotech company developing a Myeloid Targeting Platform™, announced today that the Japanese Patent Office has granted a fundamental patent (PCT/JP2024/009979, JP2024-517587) related to its PEG-Free pullulan-based lipid nanoparticle (P-LNP). The patent protects various compositions of P-LNP that actively and selectively target nucleic acids such as mRNA to dendritic cells and macrophages through the binding of the DC-SIGN receptor. P-LNP is ideal for vaccines against infectious diseases and cancer, but also has the potential of modulating myeloid cells involved in fibrosis, inflammation, obesity, insulin-resistance and autoimmune diseases.

"We will continue to protect our platform technology on a global basis, with the aim of obtaining patent rights in the US, Europe and other countries as soon as possible" said Masato Kishida, President of United Immunity.

United Immunity's Pullulan-Coated LNP (P-LNP) Solves All Problems of PEGylated LNP

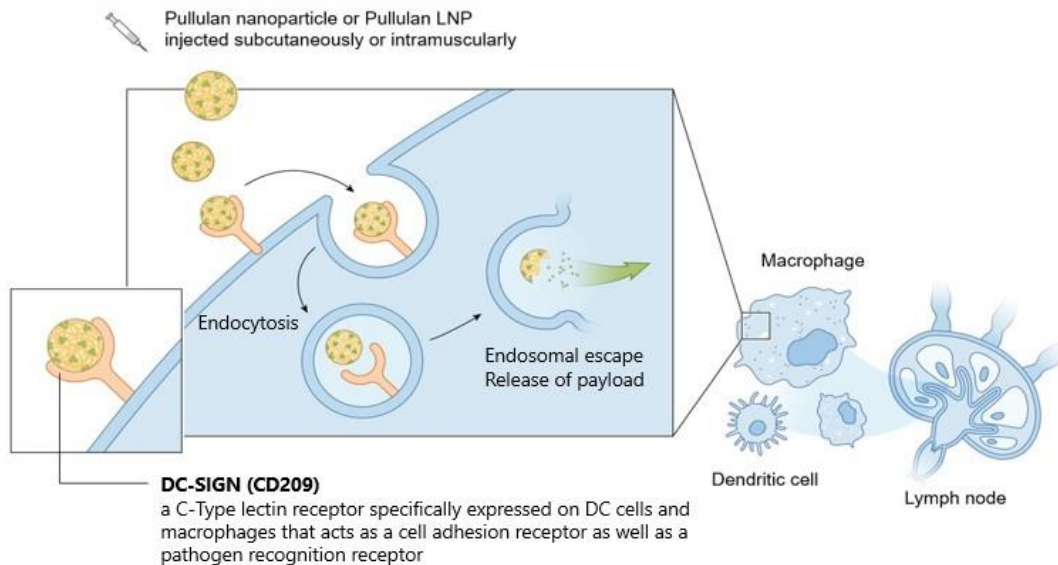
PEG Free Pullulan-coated LNP ("P-LNP")



Advantages of P-LNP over PEGylated LNP

- **Reduced risk** of allergy, anaphylaxis, and ABC effect thanks to very low antigenicity of pullulan
- **Active and selective targeting** to myeloid cells such as macrophages and dendritic cells
- Ideal for **vaccines and drug delivery to myeloid cells**
- **Comprehensive patent portfolio** with established **freedom-to-operate** avoiding the existing patent network

P-LNP Delivers mRNA to DC-SIGN (CD209)-Expressing Antigen-Presenting Cells



About United Immunity, Co., Ltd.

**Unite the power of immunity and nanoparticle,
change the future of patients**

United Immunity is an innovative biotech company developing a Myeloid Targeting Platform™ comprising of pullulan-based nanoparticles (PNP) and lipid nanoparticles (Pullulan-LNP) to target therapeutic payloads (small molecules, nucleic acids, peptides, proteins, etc.) to macrophages, dendritic cells and other myeloid cells for the treatment of cancer, fibrosis, infectious, metabolic, autoimmune, and inflammatory diseases. The company's lead program, UI-102, uses pullulan nanoparticles to deliver a TLR agonist to tumor-associated macrophages and change refractory cold tumors into hot tumors. United's platform is also being applied to T-cell booster vaccines and in-vivo CAR-macrophages.

For more information, please visit www.unitedimmunity.co.jp/eng/
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