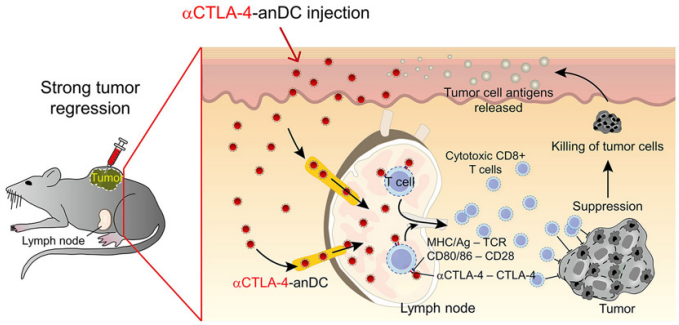
HN21C1410

Development and optimization of a new form factor for next-generation cancer immunotherapy

Yonsei University

ONCOLOGY | **Hit**

Product Type	Artificial Nano Dendritic Cell (anDC)
Indication	1st indication: Non-Small-Cell Lung Cancer, Melanoma, Head and Neck Cancer 2nd indication: Cancer
Target	Cancer antigen-specific CD8+ T cells
MoA(Mechanism of Action)	Cancer antigen-pulsed anDC → Migration into lymphoid organ → Targeting cancer antigen-specific CD8+ T cells → Continuous priming and activation of antigen-specific CD8+ T cells → Supply of effector T cells into tumor tissues → Killing cancer cells 
Competitiveness	First In Class • The optimized anDC retained T cell stimulation activity even after long-term storage and revealed anti-tumor efficacy due to its unique structure. • To maximize the ability of anDCs, Immune checkpoint inhibitor such as α CTLA-4 was engineered onto the anDCs. Surprisingly, αCTLA-4-conjugated anDCs dramatically improved the anticancer efficacy, leading to complete tumor regression with activation of CD8+ T cells.
Development Stage	Hit
Route of Administration	Parental-Subcutaneous / Parental-Intravenous

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