

세미나 초록

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발표 주제	Challenges and Innovations in NK Cell Therapy Development
발표 내용	<p>Natural Killer (NK) cells, innate lymphoid cells with potent cytotoxic activity, play a pivotal role in eliminating tumor cells and virus-infected cells. Their ability to recognize a wide range of distressed cells, coupled with their direct effector functions and immunomodulatory properties, makes them compelling targets for immunotherapy. Given the impaired NK cell function in cancer patients, therapies designed to boost NK cell activity have been developed as a cancer treatment strategy. Recent studies suggest that modulating NK cell activity may also be beneficial for treating autoimmune and neurodegenerative diseases. To address these clinical needs, adoptive cell therapy using ex vivo expanded and activated NK cells has emerged as a promising approach. The successful development of NK cell therapies hinges on the establishment of scalable culture methods that can produce large quantities of highly activated NK cells. This presentation will delve into the development of both autologous and allogeneic NK cell therapies, as well as the engineering of chimeric antigen receptor (CAR)-NK cells. The challenges encountered and the solutions implemented in establishing a robust manufacturing process for NK cell therapeutics will be examined. Additionally, the implications and limitations of clinical studies with NK cell therapy will be addressed.</p>