

S19-5 **Log-scale expansion of dendritic cells and Sendai virus-based Immunostimulatory virotherapy for cancer immunotherapy**

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During the last decade, dendritic cell (DC)-based cancer immunotherapy has been evaluated in clinic. The clinical results of DC-based cancer immunotherapy showed their safety and significant immunological responses to cancer cells, however, have been relatively limited, and clinical outcome has been demonstrated only in less than 10 % of patients.

Our recent experimental attempts to seek factors influencing the efficacies of DC-based cancer immunotherapy demonstrated, 1) that CD4+T/NK cells, but not CD8, are critical for eliminating tumors, 2) that the function of CD8+T cells is essential for preventing tumor recurrence, 3) that intratumor injection is efficient to show antitumor effect, even without requirement of tumor antigen, 4) that the 10^9 of DCs (equivalent to human body weight) shows optimal therapeutic effect, and 5) that cytoplasmic replication of RNA viruses is a good candidate as a stimulant of DCs.

To develop a far efficient antitumor DC-based therapeutics, we recently established the methods of log-scale expansion of functional DCs and immunostimulatory virotherapy.

In this session, we would like to introduce our results regarding the recent advances in DC-based immunotherapy for clinical studies.