세미나 초록

성명	김항래
소속	서울대학교 의과대학
발표 주제	**Lesson from the study of human T cells: circulating IL-7Rα^{low}memory CD8^{+}Tcells**
발표 내용	Human effector memory (EM) CD8^{+}T-cellsubsetsexpressinglowerlevelsoftheinterleukin-7receptoralpha(IL-7Rα^{low})are defective in proliferation *in vitro*, but the identity and function of these subsets have remained unclear. Here, we demonstrate that IL-7Rα^{low}EM CD8^{+}Tcellsfromhealthyindividualsaredistinctfromtheexhaustedcellsandarenaturallyoccurringanergy-likecells*in vivo*, impaired in proliferation and IL-2 production, but competent in IFN-γ and TNF-α production, a state that can be restored by IL-2 stimulation. In particular, IL-7Rα^{low}EM CD8^{+}T cellsshowdecreasedexpressionofGATA3andc-MYCandaredefectiveinmetabolicreprogrammingtowardsaerobicglycolysis.However,IL-7Rα^{low}EM CD8^{+}TcellscanproliferatewithTCRstimulationinthepresenceofIL-2andIL-15,suggestingthatthese cells can berestored to normality by inflammatory cytokines and may be a reservoir capable of operating under appropriate conditions to provide protective immunity. **Key words** interleukin-7 receptor alpha, IL-7Rα^{low}CD8^{+}Tcells,anergy,aerobicglycolysis,gata3