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# Seminar

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- **SPEAKER**

Prof. Eun Young Choi (Seoul National University College of Medicine)

- **TITLE**

Memory programming in CD8 $\beta$  T-cell differentiation is intrinsic and is not determined by CD4 help

- **ABSTRACT**

CD8 T cells activated without CD4 T-cell help are impaired in memory expansion. To understand the underlying cellular mechanism, here we track the dynamics of helper-deficient CD8 T-cell response to a minor histocompatibility antigen by phenotypic and in vivo imaging analyses. Helper-deficient CD8 T cells show reduced burst expansion, rapid peripheral egress, delayed antigen clearance and continuous activation, and are eventually exhausted. Contrary to the general consensus that CD4 help encodes memory programmes in CD8 T cells and helper-deficient CD8 T cells are abortive, these cells can differentiate into effectors and memory precursors. Importantly, accelerating antigen clearance or simply increasing the burst effector size enables generation of memory cells by CD8 T cells, regardless of CD4 help. These results suggest that the memory program is CD8 $\beta$  T-cell-intrinsic, and provide insight into the role of CD4 help in CD8 T-cell responses.

- **DATE AND VENUE**

October 10, 2018 (Wednesday, 5:00 - 6:00 pm)  
**Seminar Room A 116**, KU R&D Center

- **LANGUAGE**

Korean

- **INVITED BY**

Associate Director Wonshik Choi