### CD4 T Cell Subsets

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**Abstract**

CD4 T cells play important roles in the adaptive immunity to fend off a wide variety of pathogens. Alterations in this immune population will lead to infections, immunodeficiency, autoimmunity, allergic responses as well as cancers. The diverse role of the CD4 T cell population is largely attributed to its plasticity to differentiate into several lineages of T helper (Th) subsets, including Th1, Th2, Th17, and iTreg. In this seminar, I will summarize each Th population and their signature cytokines and functions. I will highlight the current controversies associated with these CD4 T cell subsets, and introduce some modern genetic tools used to explore CD4 T cell functions. Lastly, I will emphasize the clinical importance and implications of understanding CD4 T cell functions.