

Special Issue on  
**Differentiation and Function of T Cell Subsets in  
Infectious Diseases**

# CALL FOR PAPERS

Infectious diseases remain a public health problem in the world, regardless of the continued effort at control. Fresh outbreak of pathogens, such as Ebola virus and ZIKV, is a serious global threat. T cell immunity is a protective component of the host against the infection and is a helper for antibody production in vaccination strategy. The progress of T cell research has greatly accelerated since the T helper (Th) cell heterogeneity was discovered two decades ago. Th1 and Th2 cells are critical for the immunity against intracellular and extracellular infection, respectively. Several novel Th cell subsets, including regulatory T (Treg) cells, Th17, Th22, Th9, and T follicular cells, were found in the recent years in different disease models and they play an essential role for the development and outcome of diseases. Despite the adaptive T cells, there are some unconventional T cells, such as  $\gamma\delta$  T cells and NKT cells, which are defined as different subpopulations (e.g. IFN- $\gamma^+$  $\gamma\delta$  T cells vs.  $\gamma\delta$  17 T cells and IFN- $\gamma^+$  NKT cells vs. NKT17 cells) based on the cytokine production. These innate-like T cells rapidly respond to pathogens and display effector functions without undergoing extensive clonal expansion. However, how does T cell get a response to various pathogens and differentiate to proper effector subsets is still not well elucidated. Therefore, future work is necessary to understand T cells differentiation and function in infectious diseases, as well as their underlying mechanisms.

Our goal of this special issue is to publish high-quality original research and review articles addressing T cell differentiation and function in infectious diseases. A particular interest of this series will be given to articles related to the life-threatening infectious diseases lacking vaccine and therapeutic treatment.

Potential topics include but are not limited to the following:

- ▶ Novel T cell subsets in lymphoid organs and resident tissues during infection
- ▶ Effector and memory T cell differentiation
- ▶ Key factors that drive the unique T cell differentiation
- ▶ Interplay of T cells with antigen-presenting cells and cytokines
- ▶ Regulation of T cell responses by parenchymal/stromal cells
- ▶ Role of T cell subsets in determining the disease outcome
- ▶ T cell-based immunotherapy
- ▶ Differentiation of unconventional T cell subpopulations triggered by unique pathogens
- ▶ Impact of unconventional T cells for the early pathogen control and the following adaptive immunity

Authors can submit their manuscripts through the Manuscript Tracking System at <https://mts.hindawi.com/submit/journals/jir/dftc/>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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