



## Cellular Immune Responses in Diseases

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### Message from the Guest Editor

Cellular immune responses are a crucial aspect of the immune system's defence mechanism, maintaining the right balance between protection and auto-control to avoid damaging healthy tissues or inducing chronic inflammation.

In general, these responses involve innate and adaptive mechanisms, like phagocytosis and cell-mediated cytotoxicity, engaging different leukocyte subpopulations, both antigen-specific and antigen-nonspecific cells. Antigen-specific cellular responses are orchestrated by T cells, crucial for the capacity of the organism to distinguish self from nonself. A good example is the rejection of a graft by lymphoid cells as well as graft-versus-host disease. One T cell has subpopulations of cytotoxic effector cells, which can lyse virus-infected or malignant cells. The subpopulations of helper T cells (e.g., Th1, Th2, Th17) have different patterns of effector cytokine-dependent functions after antigen recognition. An imbalance in the cellular immune system can lead to various conditions. We expect that this Special Issue will provide fresh perspectives in the integration of knowledge concerning cellular immune responses and their regulation in disease contexts.





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