



Mediators of Inflammation

Special Issue on

Immunity and Host Microbiome in Viral Infections

CALL FOR PAPERS

The complex interplay between cells belonging to the innate and adaptive arms of the immune system is responsible for the pathogenesis and outcome of viral infections.

In recent years, research studies have focused on the role of immune cells residing at mucosal surfaces, given the fact that they represent the sites in which the immune system of the host encounters viral components. More specifically, T helper (Th)17 and Th22 populations have been extensively investigated in the pathogenesis of Human Immunodeficiency Virus (HIV) infection following the discovery of microbial translocation as a mechanism underlying T-cell activation in the course of disease. Similarly, Mucosal Associated Invariant T (MAIT) cells have been described to play a role in HCV viral persistence and disease progression, possibly through their involvement in the gut-liver axis. Mucosal immune cells, in fact, not only interact with viral pathogens upon infection but also are continuously exposed to bacteria at luminal surfaces. In this respect, the composition of the host microbiome, that is, the collection of different microbes as well as their functions and genes, represents a novel research topic in the field of viral infection pathogenesis: the microbiome, on the one hand, is able to educate the immune system of the host thus contributing to its maturity, function, and response to pathogens; on the other hand, it may be profoundly affected by various clinical conditions, including viral infections, and may thus impact the natural course of the viral disease itself.

We call for papers gaining insight into how the host's microbiome might shape the innate and adaptive immune responses to viral infections.

Potential topics include, but are not limited to:

- ▶ The gut as a site of immune pathogenesis in HIV infection: studies on microbial translocation, mucosal immunology, and microbiome, and impact of interventional strategies using prebiotics/probiotics
- ▶ The gut-liver axis in the pathogenesis and treatment of chronic viral hepatitis (HBV, HCV): studies on microbial translocation, immune responses including those of unconventional T-cells (iNKT, MAIT, and T-cells), and microbiome
- ▶ Understanding the association between immune responses to HPV and the microbiome in the pathogenesis of dysplasia
- ▶ Immunity and host microbiome in other viral infections (e.g., herpesviruses, arboviruses): studies aiming at the characterization of immune responses in the course of viral infections and how these may be shaped by the microbiome

Authors can submit their manuscripts via the Manuscript Tracking System at <http://mts.hindawi.com/submit/journals/mi/ihtmvi/>.

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