

Special Issue on
Recent advances in Innate Immunity at the Epithelial Barrier

CALL FOR PAPERS

Barrier tissues are considered to be the first line of defense for physically protecting the host against bacterial, fungal, viral, and parasitic pathogens. Tissues with barrier functions, such as the respiratory and intestinal tracts as well as the skin, are populated with a wide variety of innate and adaptive immune cells. Both myeloid cells (such as myeloid-derived suppressor cells) and lymphoid cells (including recently identified innate lymphoid cells) have been shown to play major roles in these tissues. Structural cells—including epithelial cells and endothelial cells—not only are the targets of immune cells but also play a role in instructing the immune activation and shaping the adaptive immune responses. The interplay between these immune cells and structural cells at the barrier sites plays an essential role not only in host defense but also in tumor surveillance and eradication, as tumors often use the same escaping mechanisms as pathogens. Recent work on host-pathogen interactions and antitumor immunity suggests that adjunctive therapy with immunomodulators could lead to improved outcomes for treating severe infections and cancer therapy through modifying the host immune responses.

This Special Issue aims to collect original research and review articles that will progress the understanding of the host-pathogen/host-tumor interactions at the barrier tissues and how pathogens or tumors breach this barrier. The Special Issue also welcomes the submission of manuscripts on developing novel therapeutic approaches targeting both the host-derived factors and the pathogens/tumors themselves.

Potential topics include but are not limited to the following:

- Understanding the cross-talk between innate immune cells and structural cells in the context of host-pathogen/host-tumor interactions
- Novel in vivo and in vitro models or approaches to dissect the mechanisms on tumor escape and microbial infections, including “omics” approaches
- Characterizing drug resistance and tumor escape mechanisms for the design of combination therapeutics
- Development of diagnostics, vaccines, or other immunoprophylactics for hospital-acquired infections and cancer prevention
- Clinical research aimed at identifying ways to optimize the use of currently approved drugs, including novel biomarkers of the innate immunity and epithelial functions for the prediction of disease progression

Authors can submit their manuscripts through the Manuscript Tracking System at <https://review.wiley.com/submit?specialIssue=373812>.

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

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