Special Issue

Host-Pathogen Interactions and Immune Responses

Message from the Guest Editor

Host-pathogen interactions are a central theme in understanding infectious disease biology, and this Special Issue explores their complexity through a multidisciplinary lens. We welcome studies examining how viruses, fungi, parasites, and bacteria affect host cellular processes and immune defenses.

Emphasis is placed on the alarming rise in antimicrobial resistance and the survival strategies of persistent pathogens. The role of oxidative stress in shaping infection outcomes will also be explored. Additionally, we invite research into exosomes and other extracellular vesicles as mediators of immune signaling, pathogen communication, and disease progression. Environmental pollutants, especially polycyclic aromatic hydrocarbons (PAHs), are emerging as influential stressors that can modulate host–pathogen dynamics and immune responses, further complicating disease ecology.

This Special Issue seeks submissions from immunology, microbiology, cell biology, systems biology, toxicology, and computational science, aiming to bridge basic research with translational insights.

Guest Editor

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Deadline for manuscript submissions

15 March 2026



Cells

an Open Access Journal by MDPI

Impact Factor 5.2 CiteScore 10.5 Indexed in PubMed



mdpi.com/si/247940

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Message from the Editorial Board

Cells has become a solid international scientific journal that is now indexed on SCIE and in other databases. We have successfully introduced a special issues format so that these issues serve as mini-forums in specific areas of cell science. Cells encourages researchers to suggest new special issues, serve as special issues editors, and volunteer to be reviewers. Our main focus will remain on cell anatomy and physiology, the structure and function of organelles, cell adhesion and motility, and the regulation of intracellular signaling, growth, differentiation, and aging. We are open to both original research papers and reviews.

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manuscripts are peer-reviewed and a first decision is provided to authors approximately 16 days after submission; acceptance to publication is undertaken in 2.7 days (median values for papers published in this journal in the first half of 2025).

