Special Issue

Computational Modeling on Immune Cells in Infectious Diseases

Message from the Guest Editors

All multicellular organisms have evolved defense mechanisms against the onslaught of pathogens. A big challenge is to translate the huge complexity of the immune system into a computational domain. Through more than fifteen years, several in silico trials infrastructures have been applied to simulate the main features and dynamics of the immune system in several infectious diseases scenarios. They simulate, to a different extent, both cellular and molecular entities playing a role in the immune system, inside the host and its interactions with the immune system, and the different outcomes originating from a specific disease. This Special Issue intends to collect contributions from mathematicians, bioinformaticians, computational scientists, and engineers together with experimental immunologists and biologists, to present and discuss the latest developments in different sub-areas ranging from modeling and simulation to in silico predictions, and their application to basic and applied immunology in infectious disease.

Guest Editors

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Deadline for manuscript submissions

closed (31 December 2021)

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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).