Special Issue

Sphingosine 1-Phosphate in Development and Diseases

Message from the Guest Editor

Sphingosine 1-phosphate (S1P) was discovered as a novel bioactive molecule that regulates a variety of cellular functions such as embryonic development, postnatal organ function, and disease. The plethora of S1P-mediated effects is due to the fact that the sphingolipid not only modulates intracellular functions but also acts as a ligand of G protein-coupled receptors after secretion into the extracellular environment. To date, five high-affinity receptors for S1P, designated S1PR1-S1PR5, have been identified. Sphingosine kinases (SphK) are fine-tuned enzymes responsible for the formation of S1P as they catalyze the phosphorylation of sphingosine. In the plasma, S1P is found in high concentrations, modulating immune cell trafficking and vascular endothelial integrity. Today, it is well established that S1P is a critical player not only in immunology but also in inflammation, infection, cancer, as well as in cardiovascular and metabolic disorders. In this Special Issue of Cells, expert articles describing molecular, cellular, biochemical, physiological, pathophysiological, or general aspects of S1P, S1P-signaling, or S1P-metabolism are highly welcome.

Guest Editor

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Deadline for manuscript submissions

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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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