Special Issue

Intracellular Ca^{2+} Sensing: Roles from Ca^{2+} Stores to Cytosolic Microdomains

Message from the Guest Editors

Intracellular calcium fluxes are integrated by the molecular network as information, thus defined as calcium signals, and participate in the orchestration of multiple cellular processes. In the last several years, genetically modified biosensors and breakthroughs in the resolution of photon microscopes have improved our understanding of functional units within intracellular compartments, defined as micro- or nano-domains. Some of these domains are formed by contact sites between compartments (e.g., mitochondria-associated membranes, plasma-to-ER contract sites) and are especially subject to calcium fluxes, but other domains have also emerged and could promote calcium signals to control their activity. While calcium signals carry information, the release of calcium content in calcium stores (cellular compartments with a rich Ca2+ content at steady state) also create a modification in the equilibrium that can also encode a signal which, in turn, will trigger hidden biological functions. This Special Issue will examine the identification of new developments in calcium signaling in microdomains and calcium stores.

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Deadline for manuscript submissions

closed (28 February 2023)

Cells

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Impact Factor 5.2
CiteScore 10.5
Indexed in PubMed

mdpi.com/si/113289

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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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