

Special Issue

Mitochondria: The Signaling Organelle

Message from the Guest Editor

Mitochondria have been aptly described as signaling organelles as they integrate cellular environmental cues to maintain homeostasis and as numerous signal transductions pathways both impinge upon and emanate from mitochondrial functions. Our understanding of mitochondria as signaling organelles in basic cell biology across species as well as in human health and disease is rapidly expanding. The purpose of this Special Issue is to collect what is known about mitochondrial signaling as both a hub for cellular homeostatic control and an integrator of signal transduction pathways. This Special Issue welcomes research papers and reviews that cover a wide range of topics within the context of mitochondrial signaling. **We aim for this Special Issue to highlight the foundational role of mitochondrial signaling from basic cell biology to applications in model organisms to involvement in human health and disease.**

Guest Editor

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Deadline for manuscript submissions

closed (15 April 2026)



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A major strength of biological science is the diversity of approaches that biological scientists apply to their research problems. *Biology* reflects this diversity and brings together studies employing the varied experimental and theoretical approaches that are fueling biological discovery. *Biology*, the journal, is a fully peer-reviewed publication with a rapid and economical route to open access publication and is listed on PubMed. All articles are peer-reviewed and the editorial focus is on determining that the work is scientifically sound rather than trying to predict its future impact.

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