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mTOR Signaling in Metabolism and Cancer 2.0

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Message from the Guest Editors

The mechanistic/mammalian target of rapamycin (mTOR), a serine/threonine kinase, integrates environmental cues (hormones, growth factors, nutrients, oxygen, and energy) regulating cell growth, proliferation, survival, and motility, as well as metabolism. Deregulated mTOR signaling has been implicated in a variety of disorders, such as cancer, obesity, diabetes, and neurodegenerative diseases. Current knowledge indicates that mTOR functions as two distinct multiprotein complexes, mTORC1 and mTORC2. mTORC1 regulates the phosphorylation of the p70 S6 kinase (S6K1), eukaryotic initiation factor 4E (eIF4E), binding protein 1 (4E-BP1), lipin1, etc., and controls the synthesis of proteins, lipids, and nucleotides related to cell growth and proliferation, while mTORC2 regulates the phosphorylation of Akt, serum/glucocorticoid-regulated kinase (SGK), protein kinase C (PKC), etc., and controls actin cytoskeleton and cell survival. This Special Issue aims to summarize the current understanding of the mTOR pathway and its role in metabolism and cancer.

We look forward to receiving your contributions.



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Special Issue



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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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