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Mitophagy: From Molecular Mechanisms to Diseases

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Message from the Guest Editors

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As crucial organelles broadly dispersed in most eukaryotic cells, mitochondria are indispensable for various cellular processes. The process of mitophagy, in which mitochondria are selectively targeted for degradation in autolysosomes or vacuoles, plays a central role in eliminating old or damaged mitochondria, thus maintaining the integrity of the mitochondrial pool. Nonetheless, mitophagy also promotes a reduction of the overall mitochondrial mass as an adaptive response to certain physiological stresses, such as hypoxia, nutrient deprivation, and DNA damage. Therefore, the appropriate regulation of mitochondrial quality, which includes the timely removal of unhealthy mitochondria and the maintenance of steady mitochondrial turnover, is essential for various physiological and pathological processes.

This special issue welcomes papers covering all aspects of mitophagy in different models (yeast, plants, *C. elegans*, *Drosophila*, and mammals). We also invite submissions that highlight the current knowledge of molecular mechanisms that regulate mitophagy and provide insight into the role that mitophagy plays in pathophysiological conditions and aging.



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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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