

Topical Collection

Molecular Mechanisms of Exercise and Healthspan

Message from the Collection Editor

Exercise is increasingly being recognized as a broadly effective intervention for the preservation of long-term functionality during the aging process, leading to the popularization of the phrase, “exercise is medicine”. Chronic exercise lowers the risk of many age-related diseases, including diabetes, heart disease, and several forms of cancer. Despite the many benefits of chronic exercise, the mechanistic requirements for these benefits to accrue are still not fully understood, and are a highly active research topic. As many patients are unable to execute demanding exercise programs, the identification of downstream mechanistic targets to deliver the benefits of chronic exercise pharmaceutically has a transformative potential for the treatment of age-related disease and for the maintenance of healthy aging. In this Topic Collection, we examine recent findings in diverse model systems that increase our understanding of the molecular outputs of exercise, as well as their requirements for the myriad benefits that exercise provides.

Collection Editor

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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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