Special Issue

Multitasking Proteins and Their Involvement in Pathogenesis

Message from the Guest Editor

The discovery that a protein can act outside its established primary role has challenged our perception of proteins as single-function specialists. To date, research has identified a number of multitasking proteins in a wide variety of organisms. A review from 2020 (Espinosa-Cantú et al.) describes four not always mutually exclusive manifestations of this phenomenon: pleiotropy, multiple domains, promiscuity, and moonlighting. Dysfunction of proteins displaying at least one of these features is frequently—and much more so than the dysfunction of other proteins—at the root of human disease and pathology, including neurodegenerative disorders and cancer. Thus, a comprehensive description of non-canonical functions of proteins and their participation in cross-talk among seemingly unrelated cellular processes might be crucial to the identification of novel targets for effective and side-effect-free therapies. The purpose of this Special Issue is to shed light on the latest discoveries in this area of research and how they might shape our understanding of the functioning of the cell in health and disease.

Guest 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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