

Special Issue

Molecular Motors: Mechanical Properties and Regulation

Message from the Guest Editors

Molecular motors, or motor proteins, transform chemical energy into mechanical output. Because of their many fundamental biological functions, molecular motors are ubiquitous in living cells. To cover but a few of their functions, they are responsible for cell movement and division and driving intracellular trafficking inside the cell, and they may work cooperatively to produce macroscopic outputs such as in muscle contraction or bending movement in flagella and cilia. The aim of this Special Issue is to bring together reviews and original papers on the mechanics of the different classes of molecular motors, the relation with their structure, and their action and regulation inside the cell. From an experimental point of view, novel or refined techniques and analyses that make it possible to uncover new mechanisms of motor protein function and their role in health and disease will be of particular interest. From a modelling point of view, models accounting for the cooperative action of multiple motors and their mechanical and biochemical regulation will be particularly valuable.

Guest Editors

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The International Journal of Molecular Sciences (*IJMS*, ISSN 1422-0067) is an open access journal, which was established in 2000. The journal aims to provide a forum for scholarly research on a range of topics, including biochemistry, molecular and cell biology, molecular biophysics, molecular medicine, and all aspects of molecular research in chemistry. *IJMS* publishes both original research and review articles, and regularly publishes special issues to highlight advances at the cutting edge of research. We invite you to read recent articles published in *IJMS* and consider publishing your next paper with us.

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