

Special Issue

Design, Synthesis and Biological Activity Evaluation of Kinase Inhibitors

Message from the Guest Editor

The enzymes commonly referred to as kinases are responsible for catalyzing the transfer of a phosphate group from ATP to proteins or small biomolecules, such as lipids and carbohydrates. Phosphorylation introduces structural changes in substrates, affecting their important functions in different crucial cellular processes, including proliferation, differentiation, and apoptosis. Hence, dysregulation of kinase activity prevents the substrates from playing their critical role in the regulation of intracellular homeostasis or extracellular signal transduction, leading to progressive disorders such as cancer. Advancements of disease biology over the last decade have allowed the scientific community to validate several protein and lipid kinases as therapeutic targets for cancer. However, the emergence of drug resistance has restricted the efficacy of kinase inhibitors, resulting in recurrence and poor prognosis.

This Special Issue offers a platform for high-quality articles on design, development, and biological evaluation of kinase inhibitors, with the hope being that a better understanding of their structure, function, regulation, and biological roles can be achieved.

Guest Editor

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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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