

# Special Issue

## MAPK-ERK Pathway

### Message from the Guest Editor

The Raf/MEK/Extracellular signal-regulated kinase (ERK/MAPK) pathway is a highly specific three-layered kinase cascade that has pivotal roles in a variety of cellular processes, including cell cycle progression, survival, and differentiation. The kinase cascade of this pathway consists of the Ser/Thr kinases, A-Raf, B-Raf, and C-Raf-1, the highly homologous dual-specificity kinases, MEK1 and MEK2, and the ubiquitously expressed serine/threonine kinase, ERK1 and ERK2 (collectively referred to as ERK1/2). The specificity of pathway signaling is determined at multiple levels, including regulation of the magnitude and duration of pathway activity, spatio-temporal regulation, regulation of the monomeric vs. dimeric status of ERK1/2, as well as its crosstalk with other pathways. This Special Issue covers recent advances in the molecular mechanisms and biological functions of the ERK/MAPK pathway signaling, its regulators and downstream effectors, as well as the relevance of these aspects in human disease and potential therapeutic strategies. We encourage authors to submit original research articles or reviews.

### Guest Editor

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### Deadline for manuscript submissions

closed (31 January 2021)



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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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### Editor-in-Chief

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