

Special Issue

Protein Kinases and Neurodegenerative Diseases

Message from the Guest Editors

Protein kinases have pivotal or detrimental functions in brain aging and neurodegenerative disorders. For example, PI3K/AKT/mTOR and AMPK pathways are essential for brain longevity through the regulation of protein synthesis and mitochondrial energy production, respectively. Mitogen-activated protein kinase pathways including JNK, p38, and ERK mediate neuronal damages via oxidative stress induced by brain ischemia and neurodegenerative disorders. Likewise, ASK-1/p38 signaling with CaMKII accounts for oxidative neuronal death. In addition, neuroinflammation and upregulation of death receptor family ligands such as TNF α promotes necrotic cell death, named necroptosis, which is mediated by receptor interacting protein kinase 1, RIPJ3, and mixed lineage kinase domain-like protein (MLKL). Our aim is to establish, with this Special Issue, a strong research network to share the pathological mechanisms mediated by protein kinases in human neurodegenerative disorders.

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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