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The Roles of CaMKK2 in Cell Metabolism and Disease

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Message from the Guest Editors

Dear Colleagues,

The calcium-sensing enzyme Ca²⁺/calmodulin-dependent protein kinase kinase 2 (CaMKK2) functions as a molecular hub to regulate critical cell functions and physiological responses. CaMKK2's well-characterized substrates CaMK1, CaMK4, and the metabolic co-ordinator AMP-activated protein kinase (AMPK) implicate CaMKK2 signaling cascades in diverse processes including energy homeostasis, autophagy, cell survival, cell cycle, cytoskeletal remodeling, inflammation, gene expression, mRNA splicing, neuronal excitability, cognition and synaptic plasticity associated with learning and memory. CaMKK2 also directly activates the important oncogenic target AKT (PKB), underpinning recent efforts to develop small-molecule CaMKK2 inhibitors as anti-cancer drugs. In this Special Issue, we aim to capture the scope of ongoing research being conducted on CaMKK2 at the molecular, cellular, and physiological levels. We are particularly interested in submissions investigating how CaMKK2 dysregulation leads to a wide range of pathologies and psychiatric disorders.

Deadline for manuscript submissions:

closed (1 October 2021)



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Special Issue



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