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Role of CaM Kinase II in Nervous System

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Message from the Guest Editor

Since Ca²⁺/calmodulin-dependent protein kinase II (CaMKII) was discovered, the kinase has been established in the essential roles for consolidation and recall memory in rodents. Importantly, de vovo CaMKII mutations in human genome studies have been shown to be associated with intellectual disability and neurodevelopmental disorders. To rescue and make individual therapeutics for intellectual disability and neurodevelopmental disorders in humans, we should define the precise causative mechanism and diagnosis to create precision medicine targeting for CaMKII.

In this Special Issue, you are welcome to propose concepts for synaptic regulation and circuit modulation by CaMKII signaling using molecular biology, brain imaging, molecular genetics, and AI procedure. We also invite topics on how epigenetic and genetic mutations of transcription factors elicit aberrant CaMKII activity related to memory and cognition disturbance in animals. We will make a strong research network to dissolve the problems of intellectual disability and neurodevelopmental disorders in humans in this Special Issue.









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Message from the Editor-in-Chief

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