Cellular and Network Mechanisms of Brain Function

Guest Editor

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Message from the Guest Editor

Dear Colleagues,

This Special Issue will publish contributions concerning innovative experimental approaches and novel findings in the field of Cellular and Network Mechanisms of Brain Function. The submission of review articles that provide a critical, comprehensive, and fresh perspective on existing literature are also welcome. The study of Cellular and Network Mechanisms are an overriding theme in brain research, and aimed squarely at improving our understanding of nervous system function and dysfunction. Spanning the past several decades, researchers have succeeded in deciphering molecular and cellular synaptic changes that are the basis for network function, behavior, and brain pathology. However, even though our understanding of cellular and network function has grown tremendously, pivotal questions regarding neural signaling and plasticity remain to this day. Technical advances in neuroscience research are a major catalyst for progress in Cellular and Network Mechanisms of Brain Function. Among these advances are genetic, optical, and optogenetic methods which allow researchers to manipulate single cells or neural circuits with subcellular precision, at microsecond timescales, or through longitudinal electrophysiological and optical recordings. New experimental and conceptual approaches will pave the way for a more complete understanding of Cellular and Network Mechanisms of Brain Function, as well as its implication for health and disease. This Special Issue aims to provide insights into a range of issues related to the field of Cellular and Network Mechanisms of Brain Function, and promises to significantly contribute to our understanding of neuroscience.
ranging from molecular, biochemical, and cellular mechanisms to circuit, systems, and behavioral phenomena. We encourage interested investigators to submit case reports, perspectives, reviews, and original research manuscripts based on the study of animal models, human samples, and/or clinical data aimed at highlighting recent and emerging progress in the field of brain function.

Prof. Dr. Thomas Heinbockel and Prof. Dr. Vonnie D.C. Shields

*Guest Editors*

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