Special Issue

Advances in the Research of Neural Circuits

Message from the Guest Editor

The neuron is a fundamental component of brain function. However, neurons do not function individually—rather, they function through synaptically connected neural circuits and their networks, more recently known as the connectome. Unraveling the structure and function of neural circuits and connectomes requires the combination of various approaches, including biology, chemistry, physics, mathematics, engineering, information technology, and psychology. In particular, there is no doubt that a panoply of molecular studies and tools have been at the center of this research. In addition, new tools for connectomics such as traceable molecular reporters, caged compounds, recombinant viruses, calcium indicators, and optogenetics have opened new avenues to examine diverse neural circuits. These technical breakthroughs have helped to understand the neural development and the brain pathology of human aging. This Special Issue welcomes original and review articles that demonstrate or summarize recent progress in the studies of any neural circuits, with a particular focus on molecular workforces and tools such as proteins, glycoconjugates, neurotransmitters, and lipids.

Guest Editor

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Message from the Editor-in-Chief

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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