

Special Issue

Molecular Mechanisms of Brain Wiring

Message from the Guest Editor

Neurons in the brain wire in precise and stereotyped ways to form complex circuits that control behavioral outcomes. Although recent technological advances have allowed mapping of the anatomical, physiological, and functional properties of individual neurons, the molecular mechanisms underlying wiring specificity are largely unknown. Deciphering the mechanism regulating brain wiring is not only important for basic neuroscience but is also relevant for translational medicine as many neurodevelopmental disorders have been associated to changes in neuronal connectivity or synaptic function. The objective of this Special Issue is to assemble current knowledge on the genetic programs regulating the wiring of neural circuitry and shaping synaptic properties. This Special Issue may include original research articles focusing on the study of the mechanisms instructing synapse formation and specification during neurodevelopment and adulthood or providing insight on neuronal connectivity in physiology and disease. Papers describing novel methods in assessing synaptic changes as well as review paper discussing challenges and conceptual advances in the field are also welcome.

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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