

Special Issue

Neural Correlates and Molecular Mechanisms of Memory and Learning

Message from the Guest Editors

The neurobiological and molecular foundation of learning and memory is an issue that has attracted researchers for decades. Through the use of many different learning and memory paradigms in different organisms, we are beginning to have a deeper understanding of the molecular changes that allow neurons within the amygdala, the hippocampus, and prefrontal cortex, to create and store memories and improve learning. The investigation of the biological basis of learning and memory requires a clear representation of molecular and cellular changes associated with brain plasticity, as memory formation depends on changes in synaptic efficiency that permit strengthening of associations between neurons. We also know that, at the cellular level, the storage of long-term memory is associated with gene expression, de novo protein synthesis, and the formation of new synaptic connections. This Special Issue welcomes original research or review articles focused on cellular and molecular evidence relating to different brain regions underlying memory and learning mechanisms.

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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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