Special Issue

Metabolic Hormones and Regulation of Synaptic Function: Implications for Health and CNS Disease

Message from the Guest Editor

The peripheral actions of metabolic hormones, such as insulin, leptin, and ghrelin, are well established. However, increasing evidence indicates that the actions of these hormones is not restricted to peripheral tissues, as numerous studies have revealed that these hormones can readily access the CNS and modulate the functioning of synapses. The hippocampus is a brain region that is pivotally involved in learning and memory processes, such that activity-dependent changes in the strength of hippocampal excitatory synapses underlie formation of spatial and episodic learning and memory. However, the hippocampus is also an extremely vulnerable area of the brain, with a high susceptibility to seizure generation, and it is an early site for degeneration in age-related neurodegenerative disorders. Recent evidence indicates that the hippocampus, and specifically hippocampal excitatory synapses are markedly influenced by hormonal systems, with many metabolic hormones linked to pro-cognitive actions. In this Special Issue, the ability of metabolic hormones to regulate hippocampal synaptic function and the consequences for brain health and CNS-driven disease will be explored.

Guest Editor

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Biomedicines (ISSN 2227-9059) is an open access journal devoted to all aspects of research on human health and disease, the discovery and characterization of new therapeutic targets, therapeutic strategies, and research of naturally driven biomedicines, pharmaceuticals, and biopharmaceutical products. Topics include pathogenesis mechanisms of diseases, translational medical research, biomaterial in biomedical research, natural bioactive molecules, biologics, vaccines, gene therapies, cell-based therapies, targeted specific antibodies, recombinant therapeutic proteins, nanobiotechnology driven products, targeted therapy, bioimaging, biosensors, biomarkers, and biosimilars. The journal is open for publication of studies conducted at the basic science and preclinical research levels. We invite you to consider submitting your work to Biomedicines, be it original research, review articles, or developing Special Issues of current key topics.

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