

Tentative Outline

Special Thematic Issue for the journal *Current Neuropharmacology*

Title of the Thematic Issue : Hypothalamic neuroendocrine studies in neuropharmacology

Guest Editors: Drs. Yu-Feng Wang, Lei Sha, and Vladimir Parpura

- **Scope of the Thematic Issue:**

The hypothalamus is the higher center of the instinctive behavior and emotion. These functions are largely shaped by neuropeptides produced by peptidergic neurons in several hypothalamic nuclei. In the hypothalamus, neurons produce not only vasopressin and oxytocin that have championed the neuroendocrine studies by Vincent du Vigneaud, the winner of Nobel Prize in Chemistry 1955, but also orexin and melatonin that are important for the regulation of sleep and awakening, kisspeptin that is essential for fertility, ghrelin that deeply influences our metabolism and many other peptides that maintain the homeostasis of the internal environment and functions. Intense studies over half a century have highlighted huge pharmacological potentials of these peptides while exploring the regulation of their production and functions. However, rapid expansion of neuropeptide families is challenging pharmacologists and neuroscientists with the name, regulation, functions and working mechanisms. Fortunately, *Current Neuropharmacology* provides a platform through this thematic issue to deliver the most updated knowledge and thoughts by presenting experimental findings and summarizing the progress of studies on neuropharmacology of hypothalamic neuropeptide and related matters of neuroscience.

This issue aims to provide current, timely and comprehensive reviews as well as original research of all areas of basic and clinical neuropeptide research, with a focus on the hypothalamus. It will cover all aspects of the field, from genetic, molecular and cellular endocrinology, histology, physiology, pharmacology of the hypothalamic neuroendocrine neurones, their interactions with endocrine glands, to neuroendocrine correlates of behaviour, clinical pharmacology, endocrine diseases and their treatment. The thematic issue will also consider the regulation of peptidergic neurones by synaptic innervations, glial plasticity, cellular signalling as well as endocrine, paracrine and autocrine. The review articles will cover a current topic written by experts and leaders of neuropharmacology and neuroscience about neuropeptides. They should include a critical discussion of the reported data and give a clear conclusion with potential impacts on our current understandings. The research articles should give clear evidence on and provide answers to a well-defined question in a particular neuropeptide or neural-hormonal interaction.

This issue also accepts the submission from junior researchers in the form of mini-review and rapid communication of research that put stress on novelty and creativity, particularly in an emerging field exploring the complex interactions between hypothalamic neuronal networks and endocrine glands including immune cells.

Questions about the general format, copy right and publication fees please refer to the home page of the *Current Neuropharmacology*. Submission to this thematic issue starts on January 1, 2020 and closes by December 31, 2020.

Keywords: Cytokines, Endocrine glands, Glial cells, Hormones, Hypothalamus, Neuroendocrinology, Neurohypophysis

Sub-topics:

The subtopics to be covered within this issue are listed below:

- Neurochemical regulation of neuroendocrine activity: Effects of drugs, neurotransmitters, hormones, immune cytokines, glial plasticity, synaptic inputs and others on the activity of neuroendocrine cells and neurosecretion in health and disease.
- Structural and functional features of newly-identified neuropeptides.
- Neural-hormonal crosstalk: Effects of peripheral hormones on neuronal activity and neural regulation of the activity of endocrine glands.
- Young neuropharmacologist forum: mini-review and rapid communication of research with dramatic novelty and creativity.

Tentative titles of the articles and list of contributors:

Tentative titles of the articles and list of contributors with their names, designations, addresses and email addresses should be provided. (see the attached list of candidates please)

Schedule:

- ✧ Thematic issue submission deadline:
Manuscript submission deadline: August, 2020
Peer Review Due: September 2020
Revision Due: October 2020
Announcement of acceptance by the Guest Editors: November 2020
Publication: December 2020 ·

Contacts:

Guest Editor: Prof. Yu-Feng Wang

Affiliation: Department of Physiology, Harbin Medical University, Harbin, China

Email: yufengwang@ems.hrbmu.edu.cn

Guest Editor: Prof. Lei Sha

Affiliation: Department of Neuroendocrine Pharmacology, School of Pharmacy, China Medical University, Shenyang, China

Email: lei.sha@foxmail.com

Guest Editor: Prof. Vladimir Parpura

Affiliation: Department of Neurobiology, University of Alabama at Birmingham, Birmingham, AL, USA

Email: vlad@uab.edu