Special Issue

The Role of Neuropeptides and Their GPCRs in the Neuroendocrine System

Message from the Guest Editor

The neuroendocrine system controls vital physiological functions, including homeostasis, growth, reproduction, and stress responses, through complex interactions between the nervous and endocrine systems. At the core of this sophisticated regulatory system are diverse neuropeptides and their target G-protein-coupled receptors (GPCRs). Neuropeptides are secreted by neuroendocrine cells, particularly in the hypothalamus, and participate in a wide range of physiological functions, including pituitary hormone release control, feeding behavior regulation, circadian rhythm maintenance, and emotional control. The actions of these bioactive substances are mediated through specific GPCRs via signal transduction pathways that activate diverse intracellular signaling cascades. This Special Issue will share the latest research findings and enhance our understanding of neuropeptide-GPCR systems in the neuroendocrine field, from the molecular to organismal level. We aim to offer innovative insights to help advance this field, from basic research to clinical applications.

Guest Editor

Prof. Dr. Hirotaka Sakamoto

Laboratory of Neuroendocrinology, Department of Biology, Faculty of Environmental, Life, Natural Science and Technology, Okayama University, 3-1-1 Tsushimanaka, Okayama 700-8530, Japan

Deadline for manuscript submissions

31 August 2026



International Journal of Molecular Sciences

an Open Access Journal by MDPI

Impact Factor 4.9 CiteScore 9.0 Indexed in PubMed



mdpi.com/si/253548

International Journal of Molecular Sciences Editorial Office MDPI, Grosspeteranlage 5 4052 Basel, Switzerland Tel: +41 61 683 77 34 ijms@mdpi.com

mdpi.com/journal/ ijms





International Journal of Molecular Sciences

an Open Access Journal by MDPI

Impact Factor 4.9 CiteScore 9.0 Indexed in PubMed





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.

Editor-in-Chief

Prof. Dr. Maurizio Battino

Department of Odontostomatologic and Specialized Clinical Sciences, Sez-Biochimica, Faculty of Medicine, Università Politecnica delle Marche, Via Ranieri 65, 60100 Ancona, Italy

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, PMC, MEDLINE, Embase, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q1 (Biochemistry and Molecular Biology) / CiteScore - Q1 (Organic Chemistry)

