

## Special Issue

# Dopamine Signaling Pathway in Health and Disease—2nd Edition

### Message from the Guest Editors

Dopamine plays a pivotal role as a neurotransmitter, regulating numerous essential physiological functions within the central nervous system. These functions encompass motor behavior, affective and emotional states, reward and reinforcement behaviors, as well as various higher cognitive functions. The four primary dopaminergic pathways are the nigrostriatal, mesocortical, mesolimbic, and tuberoinfundibular pathways. Dysfunction in the dopaminergic transmission is recognized as a core alteration in several neurological and psychiatric disorders, including Parkinson's disease, schizophrenia, bipolar disorder, attention deficit hyperactivity disorder (ADHD), and addiction. This Special Issue will feature a curated collection of original research papers and reviews. These contributions will explore the cellular and molecular mechanisms that underlie dopaminergic neuromodulation under physiological conditions, as well as in preclinical cellular and animal models of dopaminergic neurodegeneration. Additionally, the issue will examine innovative pharmacological approaches for addressing dopamine-related disorders.

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### Guest Editors

Prof. Dr. Floriana Volpicelli  
Prof. Dr. Maria Concetta Miniaci  
Dr. Luisa Speranza

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### Deadline for manuscript submissions

closed (30 November 2025)



## Biomedicines

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## About the Journal

### Message from the Editor-in-Chief

*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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### Editor-in-Chief

Prof. Dr. Felipe Fregni

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