



## Advanced Research on Dopaminergic Neurons and Their Role in Depression

Guest Editor:

**Dr. Máté D. Döbrössy**

Laboratory of Stereotaxy and  
Interventional Neurosciences,  
Department of Stereotactic and  
Functional Neurosurgery,  
University Hospital Freiburg,  
Freiburg, Germany

Deadline for manuscript  
submissions:

**closed (8 June 2022)**

### Message from the Guest Editor

Major Depressive Disorder (depression) is a multifactorial, biologically and symptomatically heterogeneous condition. One of the longest-standing ideas is the “monoamine hypothesis” stating that one or more dysfunctional monoamine systems are key contributors in the development of this psychiatric disorder. There is growing interest in dopamine’s role in clinical depression, especially, in the way it works as a modulator of the brain’s reward systems. Furthermore, there is pre-clinical evidence that A10 dopaminergic neurons projecting from the midbrain ventral tegmental area to the nucleus accumbens and dorsolateral prefrontal cortical areas over several routes are associated with motivation, exploration, appetitive learning, reward-driven behaviours. The reward systems might also be implicated in aversive stimuli, a recent notion which needs to be further explored. This Special Issue of Brain Sciences aims to bring together some of the current ideas on the function or dysfunction of dopamine and dopaminergic transmission in depression, by examining the most recent evidence from advanced clinical and experimental research.





an Open Access Journal by MDPI

## Editor-in-Chief

### Prof. Dr. Stephen D. Meriney

Department of Neuroscience,  
University of Pittsburgh,  
Pittsburgh, PA 15260, USA

## Message from the Editor-in-Chief

You are invited to contribute a research article or a comprehensive review for consideration and publication in *Brain Sciences* (ISSN 2076-3425). *Brain Sciences* is an open access, peer-reviewed scientific journal that publishes original articles, critical reviews, research notes, and short communications on neuroscience. The scientific community and the general public can access the content free of charge as soon as it is published.

## 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, Embase, PSYINDEX, CAPlus / SciFinder, and other databases.

**Rapid Publication:** manuscripts are peer-reviewed and a first decision is provided to authors approximately 12.9 days after submission; acceptance to publication is undertaken in 2.5 days (median values for papers published in this journal in the first half of 2024).

## Contact Us

---

Brain Sciences Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/brainsci](https://mdpi.com/journal/brainsci)  
[brainsci@mdpi.com](mailto:brainsci@mdpi.com)  
[X@BrainSci\\_MDPI](https://twitter.com/BrainSci_MDPI)