



## Neurodevelopmental Correlates of Substance Use and Abuse in Adolescence

Guest Editors:

**Prof. Emma Rose**

Program for Translational  
Research on Adversity and  
Neurodevelopment (P-TRAN),  
Pennsylvania State University, PA  
16801, United States

**Dr. Giorgia Picci**

Program for Translational  
Research on Adversity and  
Neurodevelopment (P-TRAN),  
Pennsylvania State University, PA  
16801, United States

Deadline for manuscript  
submissions:

**closed (25 November 2021)**

### Message from the Guest Editors

Neurodevelopmental trajectories across adolescence contribute to a heightened risk for substance use. Specifically, limbic circuits appear to mature earlier and may, by mediating “bottom-up” affective processes, drive risky behavior. Conversely, prefrontal cortical systems contributing to executive control processes and “top-down” behavioral regulation of risky and reward-seeking behaviors show a more protracted developmental course. Substance use in adolescence has been associated with detrimental alterations of brain structure, function, and connectivity. Investigations of neural precursors and consequences of substance use focus on cross-sectional and retrospective studies, recent advances include prospective longitudinal investigations which include a true substance use naïve baseline sample. This Special Issue will address these issues through a selection of papers representing methodological advances in the field, novel perspectives, and reviews of the extant literature. Manuscripts that focus on following cutting-edge research approaches are especially encouraged.





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, PsycInfo, CAPlus / SciFinder, and other databases.

**Rapid Publication:** manuscripts are peer-reviewed and a first decision is provided to authors approximately 16.2 days after submission; acceptance to publication is undertaken in 1.9 days (median values for papers published in this journal in the first half of 2025).

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