

Special Issue

Neurodevelopmental Correlates of Substance Use and Abuse in Adolescence

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.

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)



Brain Sciences

an Open Access Journal
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Impact Factor 2.8
CiteScore 5.6
Indexed in PubMed



mdpi.com/si/78622

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Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
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Editor-in-Chief

Prof. Dr. Stephen D. Meriney

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

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