



cells



an Open Access Journal by MDPI

How Perinatal Stress Affects Brain Plasticity in Ontogenesis

Collection Editors:

Prof. Dr. Alexander V. Arutjunyan

1. Chief Researcher of the Department of Immunology and Intercellular Interactions, D.O. Ott Institute of Obstetrics, Gynecology and Reproductology, Saint-Petersburg, Russia
2. Head of the Laboratory of Biochemistry, Saint-Petersburg Institute of Bioregulation and Gerontology, Saint-Petersburg, Russia

Prof. Dr. Natalia V. Gulyaeva

Russian Academy of Sciences, Department of Functional Biochemistry of the Nervous System, Moscow, Russia

Message from the Collection Editors

Recent advances strongly support the essential role of perinatal stress in delayed psychological, psychiatric, and neurological sequelae during ontogenesis, specifically in adolescence and adulthood. A number of animal models of perinatal stress have been developed and used to study the mechanisms of its detrimental effects on the brain, with these studies having major translational significance. The perinatal period of brain development is extremely important, since it involves the formation of the main brain structures associated with neurogenesis and gliogenesis, the maturation of synapses, as well as other essential events regulated by endocrine and immune systems and potentially vulnerable to early-life stress. Stress-induced changes involve all levels of neuroplasticity, including synaptic plasticity. This Topical Collection is aimed at the accumulation of new data regarding the effects of perinatal stress on the development of brain plasticity mechanisms at all levels of brain organization. The goal of this collection is to highlight the translational potential of these data to elucidate connections between perinatal stress and negative health outcomes.



mdpi.com/si/96794

Topical Collection



cells



an Open Access Journal by MDPI

Editors-in-Chief

Prof. Dr. Alexander E. Kalyuzhny

Neuroscience, UMN Twin Cities,
6-145 Jackson Hall, 321 Church St
SE, Minneapolis, MN 55455, USA

Prof. Dr. Cord Brakebusch

Biotech Research & Innovation
Centre, The University of
Copenhagen, Copenhagen,
Denmark

Message from the Editorial Board

Cells has become a solid international scientific journal that is now indexed on SCIE and in other databases. We have successfully introduced a special issues format so that these issues serve as mini-forums in specific areas of cell science. *Cells* encourages researchers to suggest new special issues, serve as special issues editors, and volunteer to be reviewers. Our main focus will remain on cell anatomy and physiology, the structure and function of organelles, cell adhesion and motility, and the regulation of intracellular signaling, growth, differentiation, and aging. We are open to both original research papers and reviews.

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](#), [MEDLINE](#), [PMC](#), [CAPlus / SciFinder](#), and [other databases](#).

Journal Rank: JCR - Q2 (*Cell Biology*) / CiteScore - Q1 (General Biochemistry, Genetics and Molecular Biology)

Contact Us

Cells Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/cells
cells@mdpi.com
[X@Cells_MDPI](#)