



Advanced Neuroimaging in Fetal, Neonatal, Infant and Child Health

Guest Editors:

Dr. Hyun Ju Lee

1. Division of Neonatology and
Developmental Medicine,
Hanyang University Hospital,
Seoul 04763, Korea

2. Department of Pediatrics,
Hanyang University Hospital,
Hanyang University College of
Medicine, Seoul 04763, Korea

Dr. Ai Wern Chung

Fetal-Neonatal Neuroimaging &
Developmental Science Center,
Division of Newborn Medicine,
Boston Children's Hospital,
Harvard Medical School, Boston,
MA 02115, USA

Message from the Guest Editors

The fetal and neonatal period is an important time for brain growth and development, underpinning future cognitive potential. Neuroimaging techniques provide crucial insight into the understanding of structural and functional brain development, as well as a psychopathological basis in pediatrics. Of note, advanced magnetic resonance imaging (MRI) techniques and near-infrared spectroscopy (NIRS) have shown sufficient and improved accuracy in the long-term prognosis of high-risk neonates and infants. In particular, machine-learning algorithms applied to neuroimaging data analysis show promise in identifying microstructural changes associated with pathological processes for the onset and explanation of symptoms of neurodevelopmental disorders. This Special Issue aims to summarize the current state of research on the application of state-of-the-art advances in MRI and NIRS in fetal, neonatal and infant health to improve knowledge of brain development.

Deadline for manuscript
submissions:

closed (1 July 2022)





an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Andreas Kjaer

Department of Clinical
Physiology, Nuclear Medicine &
PET National University Hospital,
Rigshospitalet, University of
Copenhagen, Blegdamsvej 9, DK-
2100 Copenhagen, Denmark

Message from the Editor-in-Chief

You are cordially invited to submit research articles, short communications, comprehensive reviews, case reports or interesting images for consideration and publication in *Diagnostics* (ISSN 2075-4418). *Diagnostics* is published in open access format – research articles, reviews and other contents are released on the Internet immediately after acceptance. The scientific community and the general public have unlimited and free access to the content as soon as it is published. We would be pleased to welcome you as one of our authors.

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](#), [Inspec](#), [CAPus / SciFinder](#), and [other databases](#).

Journal Rank: JCR - Q1 (Medicine, General and Internal) / CiteScore - Q2 (Internal Medicine)

Contact Us

Diagnostics Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

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

mdpi.com/journal/diagnostics
diagnostics@mdpi.com
[X@diagnostic_mdpi](#)