

Special Issue

Application of Near-Infrared Spectroscopy in Pediatrics

Message from the Guest Editor

Near-infrared spectroscopy (NIRS) allows for non-invasive assessment of end-organ oxygenation, making this technique especially suitable for neonates and children. Multiple NIRS applications have been described with regard to various neonatal and pediatric populations with various illnesses, and assessing multiple organs. The assessment of cerebral oxygenation has been studied widely, though evidence for effective clinical use in the pediatric population is still scarce. Using NIRS for the assessment for cerebrovascular autoregulation is gaining interest. Similarly, functional cerebral NIRS may add valuable information on cerebral perfusion to other neuroimaging techniques in children. For somatic use, the measurement of renal, intestinal, lung or muscle tissue oxygen saturation may potentially allow for the prediction of diseases or the efficacy and complications of therapy, as often seen in small cohorts. For this series of papers, we plan to include original research and review papers on the application of both cerebral and somatic NIRS in the neonatal and pediatric populations.

Guest Editor

Dr. Elisabeth M. W. Kooi

Beatrix Children's Hospital, Neonatology, University of Groningen |
RUG, Groningen, The Netherlands

Deadline for manuscript submissions

closed (1 February 2025)



Children

an Open Access Journal
by MDPI

Impact Factor 2.1
CiteScore 3.8
Indexed in PubMed



mdpi.com/si/159143

Children
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
children@mdpi.com

[mdpi.com/journal/
children](https://mdpi.com/journal/children)





Children

an Open Access Journal
by MDPI

Impact Factor 2.1
CiteScore 3.8
Indexed in PubMed



[mdpi.com/journal/
children](https://mdpi.com/journal/children)



About the Journal

Message from the Editor-in-Chief

You are invited to contribute a research article or comprehensive review for consideration and publication in *Children* (ISSN 2227-9067). *Children* is an open access journal—research articles, reviews, and other content are published online immediately after acceptance. The scientific community and the general public have unlimited free access to the content as soon as it is published. The journal focuses on sharing clinical, epidemiological, and translational science relevant to children's health. We would be pleased to welcome you as one of our authors.

Editor-in-Chief

Prof. Dr. Paul R. Carney

Departments of Child Health and Neurology, University of Missouri, 400
Keene Street, Columbia, MO 65211, USA

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, and other databases.

Journal Rank:

JCR - Q2 (Pediatrics) / CiteScore - Q2 (Pediatrics, Perinatology and Child Health)