

Special Issue

The Development and Use of Hybrid MR-PET Imaging in Molecular Science

Message from the Guest Editors

Positron emission tomography (PET) is a widely used in vivo imaging modality employed to measure numerous molecular targets in the brain, including glucose metabolism, oxygen usage, and neurotransmitter distribution and concentration. However, although PET provides an unmatched ability to image numerous biochemical and molecular targets, its ability to capture detailed spatial and anatomical information is limited. In contrast, magnetic resonance imaging (MRI) excels in capturing even very small changes in brain structure and function. Thus, the complementary nature of the two modalities makes integration in a simultaneous system highly desirable for both clinical and research applications. For this Special Issue, we aim to highlight the importance of hybrid MR-PET imaging, detailing methods and applications in human disease. We will also give an overview of current human research, with a particular focus on applications in neuroimaging and cognitive neuroscience or others.

Guest Editors

Prof. Dr. N. Jon Shah

1. Institute of Neuroscience and Medicine 4, INM-4, Forschungszentrum Jülich, Germany
2. Institute of Neuroscience and Medicine 11, INM-11, JARA, Forschungszentrum Jülich, Germany
3. JARA - BRAIN - Translational Medicine, Aachen, Germany
4. Department of Neurology, RWTH Aachen University, Aachen, Germany

Dr. Christoph Lerche

Institute of Neuroscience and Medicine, INM-4, Forschungszentrum Jülich, Jülich, Germany

Deadline for manuscript submissions

closed (30 April 2022)



Diagnostics

an Open Access Journal
by MDPI

Impact Factor 3.3
CiteScore 5.9
Indexed in PubMed



mdpi.com/si/98610

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

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





Diagnostics

an Open Access Journal
by MDPI

Impact Factor 3.3
CiteScore 5.9
Indexed in PubMed



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



About the Journal

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.

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

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, PMC, Embase, Inspec, CAPIus / SciFinder, and other databases.

Journal Rank:

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

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 21.6 days after submission; acceptance to publication is undertaken in 2.7 days (median values for papers published in this journal in the second half of 2025).