Special Issue

Molecular Mechanisms of Placental Diseases and Related Pregnancy Complications

Message from the Guest Editor

The human placenta is a temporary but highly complex organ of pregnancy. Defects in placental functions have been implicated in the pathophysiology of most pregnancy complications, including preeclampsia, HELLP syndrome, placental abruption, preterm birth, and intrauterine growth restriction, which have enormous impacts on the lifelong health of mothers and the babies born to the mothers with these conditions. However, the molecular underpinnings of such placental defects are poorly understood.

This Special Issue aims to publish high-quality manuscripts with particular emphasis on the molecular understanding of the pathophysiology of pregnancy complications associated with placental diseases. We welcome reviews, new methods, short communications, and original articles covering all aspects of uterine and placental development and remodeling, maternal vascular adaptations and dysfunctions (both during pregnancy and in the postpartum period), fetal and neonatal diseases associated with vascular complications of pregnancy, and studies and experimental models addressing pregnancy-related vascular complications.

Guest Editor

Prof. Dr. Nihar Ranjan Nayak

Department of Obstetrics and Gynecology, UMKC School of Medicine, Kansas City, MO 64108, USA

Deadline for manuscript submissions

closed (30 December 2023)



International Journal of Molecular Sciences

an Open Access Journal by MDPI

Impact Factor 4.9 CiteScore 9.0 Indexed in PubMed



mdpi.com/si/151330

International Journal of Molecular Sciences Editorial Office MDPI, Grosspeteranlage 5 4052 Basel, Switzerland Tel: +41 61 683 77 34 ijms@mdpi.com

mdpi.com/journal/ ijms





International Journal of Molecular Sciences

an Open Access Journal by MDPI

Impact Factor 4.9 CiteScore 9.0 Indexed in PubMed





Message from the Editor-in-Chief

The International Journal of Molecular Sciences (*IJMS*, ISSN 1422-0067) is an open access journal, which was established in 2000. The journal aims to provide a forum for scholarly research on a range of topics, including biochemistry, molecular and cell biology, molecular biophysics, molecular medicine, and all aspects of molecular research in chemistry. *IJMS* publishes both original research and review articles, and regularly publishes special issues to highlight advances at the cutting edge of research. We invite you to read recent articles published in *IJMS* and consider publishing your next paper with us.

Editor-in-Chief

Prof. Dr. Maurizio Battino

Department of Odontostomatologic and Specialized Clinical Sciences, Sez-Biochimica, Faculty of Medicine, Università Politecnica delle Marche, Via Ranieri 65, 60100 Ancona, Italy

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, MEDLINE, Embase, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q1 (Biochemistry and Molecular Biology) / CiteScore - Q1 (Organic Chemistry)

