



## Signal Transduction Pathways Regulated by Vascular Endothelial Growth Factor

Guest Editor:

**Prof. Dr. David Della-Morte**

1. Department of Systems  
Medicine, University of Rome Tor  
Vergata, Via Montpellier 1, 00133  
Rome, Italy  
2. Department of Neurology,  
Miller School of Medicine,  
University of Miami, Miami, FL  
33136, USA

Deadline for manuscript  
submissions:

**closed (31 March 2021)**

### Message from the Guest Editor

VEGF, also known as VEGF-A, is the most well characterized member of the cysteine-knot growth factors family. Hypoxia is a major regulator of VEGF expression via hypoxia inducible factor (HIF). Then, when activated, VEGF displays several activities such as pro-angiogenic function, vascular permeability, and vasodilation. However, as largely demonstrated, these VEGF properties lead to the formation of new blood vessels, which may be structurally abnormal in the case of tumors. Moreover, alternative exon splicing on the vegf gene leads to multiple VEGF isoforms with different pro-angiogenic activities, as well as different single nucleotide polymorphisms (SNPs) in the same gene, which have been associated with a significant variability in the association with chronic diseases in humans. Therapies targeting VEGF and its signal transduction are currently available and research in this field is ongoing.





an Open Access Journal by MDPI

## 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

## 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.

## 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)

## Contact Us

*International Journal of Molecular  
Sciences* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

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

mdpi.com/journal/ijms  
ijms@mdpi.com  
X@IJMS\_MDPI