

Special Issue

Nrf2 and Heme Oxygenase: Two Players of the Same Game. Lights and Shadows

Message from the Guest Editor

Nuclear factor erythroid 2-related factor 2 (Nrf2) is a cytoplasmic evolutionary conserved protein responsible for cytoprotection in case of oxidative stress. Oxidative imbalance triggers Nrf2-induced transcription of several antioxidant factors, including heme oxygenase-1 (HO-1). Heme oxygenase-1 in turn by degrading heme is a source of protecting catabolites, such as carbon monoxide and bilirubin with antioxidant and cytoprotective properties. Hence, Nrf2 and HO-1 have evolved as promising drug targets for the treatment of oxidative stress-based diseases. At the same time, recent research trends highlighted their detrimental role in different types of tumours, suggesting their modulation or inhibition as a novel approach in anticancer therapy. This Special Issue aims to collect original papers and reviews focused on the modulation of Nrf2 and HO-1 in order to shed light on their drugability in the treatment of pathologies related to an imbalanced oxidative cell status as well as cancer. Special attention will be devoted to papers helping to clarify shadows and lights of these two targets.

Guest Editor

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Deadline for manuscript submissions

closed (31 December 2023)



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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.

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