Special Issue

Role of Nrf2 in Disease: Novel Molecular Mechanisms and Therapeutic Approaches

Message from the Guest Editor

Since it was cloned and characterized, the transcription factor NRF2 has been implicated in processes associated with redox balance, inflammation, proteostasis and lipids, purines and pentoses metabolism, becoming a pleiotropic transcription factor. Electrophiles or oxidative stress induce the inactivation of KEAP1 by direct modification of reactive cysteine residues, leading to the release and stabilization of NRF2, that translocates to the nucleus to bind to the antioxidant response element (ARE) sequence in the promoter regions of NRF2-dependent genes. This system makes it a good pharmacological target to modulate the activation of NRF2 and, therefore, its application in various pathologies. This Special Issue on NRF2 should emphasize the importance of this transcription factor, and, on the other hand, it should also highlight existing pharmacological components that can modify the NRF2 signaling pathway. In this regard, any review articles which address the above-mentioned issues from different perspectives or original research papers contributing significantly to NRF2 signaling progress or advancing our understanding of biological implications are highly welcome.

Guest Editor

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Deadline for manuscript submissions

closed (31 August 2020)

Biomolecules

an Open Access Journal by MDPI

Impact Factor 4.8
CiteScore 9.2
Indexed in PubMed

mdpi.com/si/30326

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