Special Issue

The Impact of Hypoxia on Neutrophil Signaling and Function

Message from the Guest Editors

Molecular oxygen is essential for the development and growth of multicellular organisms. Tissue oxygen tensions reflect a balance between oxygen delivery mechanisms and oxygen consumption, with each tissue compartment having a set point which may be perturbed by a range of pathological processes. Neutrophils are highly mobile and accumulate rapidly in response to such pathological insults, hence, they must operate within a wide and rapidly changing range of oxygen tensions. Hypoxia-inducible factors (HIFs) are transcription factors which function as key molecular regulators of hypoxic responses, but it is increasingly recognized that HIF regulation of neutrophil function integrates other microenvironmental cues alongside hypoxia and that HIF-independent pathways may also influence neutrophils' response to hypoxia. This Special Issue focuses on the recent advances in our understanding of the biology of hypoxia signaling and its impact on neutrophil function and interactions with the inflammatory microenvironment, in particular in the setting of infection and malignancy. For further reading, please visit the Special Issue Website.

Guest Editors

Prof. Dr. Alison Condliffe

Dr. Philip Elks

Dr. Roger Thompson

Dr. Pranvera Sadiku

Deadline for manuscript submissions

closed (15 October 2020)



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

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Message from the Editor-in-Chief

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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

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