



The Role of Red Blood Cell Hemodynamic Functionality in Health and Disease

Guest Editors:

Prof. Dr. Saul Yedgar

Department of Biochemistry, The
Faculty of Medicine, Hebrew
University, Jerusalem 91120,
Israel

Dr. Gregory Barshtein

Biochemistry Department, The
Faculty of Medicine, The Hebrew
University of Jerusalem,
Jerusalem 9112102, Israel

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Message from the Guest Editors

Dear Colleagues,

Red Blood Cells (RBCs) have special morphological and structural characteristics, expressed by their membrane and cytoskeleton composition and their interactions with hemoglobin and other cytosolic molecules, enabling their unique physiological functions. The primary role of RBC is the transport of respiratory gases. However, RBCs also have unique flow-affecting properties, which determine their hemodynamic functionality, namely, their potential to affect blood circulation and the vascular system. These include RBC deformability, the potential adherence to the blood vessel wall, self-aggregability, and fragility.

In the current Special Issue, we collect new investigations addressing the hemodynamic aspects of RBCs in different pathological states. In addition, we intend to discuss the correlation between biochemical/biophysical features of RBC and their hemodynamics. Moreover, a discussion of the influence of external factors (e.g., oxidative stress, glucose, and shear stress) on RBC hemodynamics would be welcome.





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Prof. Dr. José L. Quiles

Department of Physiology,
Institute of Nutrition and Food
Technology “Jose Mataix”,
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Conocimiento s/n, 18100 Armilla,
Granada, Spain

Message from the Editor-in-Chief

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MDPI, Grosspeteranlage 5
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