Special Issue

Blood Microrheology in Health and Disease

Message from the Guest Editor

The red blood cells (RBCs) are a crucial factor affecting normal blood microfluidics since the plasma flows in a completely different way without them. Under specific conditions, and with the contribution of other blood cells and proteins, the aggregability increases to such a degree that local microthrombi are formed. In addition. hemodynamics plays an important role since the behavior of blood changes at very low or high shear rates and stresses. Some of the RBC properties that affect the microrheology of blood are deformability, aggregability, membrane viscosity, cytoplasmic viscosity, and endurance to shear stress. Some of the related pathological conditions are microthrombosis, sickle cell disease, and related retinopathy and nephropathy. The scope of this Special Issue is to accept original research and reviews on the latest developments on blood cell properties and biomarkers related to blood microfluidics, and/or on how blood microfluidics may change under the influence of disease or drugs inside microvessels in vivo or in vitro.

Guest Editor

Dr. Aristotle G. Koutsiaris

MIBI Laboratory, Faculty of Medicine, University of Thessaly, 41500 Larissa, Greece

Deadline for manuscript submissions

closed (31 July 2023)



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Biomedicines Editorial Office MDPI, Grosspeteranlage 5 4052 Basel, Switzerland Tel: +41 61 683 77 34

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Editor-in-Chief

Prof. Dr. Felipe Fregni

- Neuromodulation Center and Center for Clinical Research Learning, Spaulding Rehabilitation Hospital and Massachusetts General Hospital, Harvard Medical School, Boston, MA 02114, USA
- 2. Department of Epidemiology, Harvard T.H. Chan School of Public Health, Boston, MA 02115, USA

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