Special Issue

Physiology of Lymph Vessels: Structure, Function, Modelling, and Clinical Perspectives

Message from the Guest Editor

Lymphatic vessels provide a unique circulatory system offering interstitial and serosal liquids a drainage route back into the blood stream. Lymphatic vessels exploit two different pumping mechanisms, which rely on external compression and/or distention forces exerted by the surrounding tissues, or by intrinsic, spontaneous contractile activity of the lymphatic musculature of the wall comprising lymphatic vessels. Parietal and intraluminal lymphatic valves cooperate with these two pumping mechanisms to attain lymph drainage and transport. The knowledge of lymphatic vessels' physiology has lagged behind the wealth of data regarding blood circulation, despite lymphatics being a prominent actor in maintaining the fluid volume homeostasis in tissues and serosal cavities. This Special Issue will highlight the most relevant and latest findings on lymphatic physiology, anatomy and histology, as well as on new, in vivo or ex vivo least-invasive lymphatic imaging techniques, numerical modelling of lymphatic vessel function and clinical perspectives on how to translate this knowledge into clinical approaches to deal with the lymphatic drainage defect.

Guest Editor

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