hearts

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The Epicardium: Development, Pathology, and Regeneration

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Message from the Guest Editors

Dear Colleagues,

Over the last few decades, we have witnessed a tremendous effort to understand the molecular and morphogenetic mechanisms driving cardiovascular development. At early developmental stages, the cardiac tube is constituted by two layers: the endocardium and the myocardium. Soon after cardiac looping, a third layer is formed, the epicardium, establishing critical contribution and crosstalk with the primordial cardiac layers, which might compromise coronary vascular formation and myocardial thickening if impaired. Therefore, the epicardium, besides just externally covering the naked myocardium, is primordial in disease progression, including those apparently further apart pathologies such as atrial fibrillation. More recently, a role in cardiac regeneration has also been widely acclaimed in distinct experimental models.

This Special Issue aims to cover studies on the molecular and functional roles of the epicardium in the cardiovascular system, spanning from the early stages of development to the adult heart, including cardiovascular physiopathological conditions and cardiac regeneration.