Special Issue

New Strategies for Cardiac Tissue Repair and Regeneration

Message from the Guest Editors

The heart is one of the least regenerative organs in the body, necessitating innovative interventional therapies to restore cardiac function following injury or disease. Research in cardiac tissue engineering seeks to develop, evaluate, and implement interdisciplinary strategies for repairing the heart. In this Special Issue, we aim to organize a collection of emerging technologies and translational research that will lead to impactful medical breakthroughs in cardiovascular medicine. Topics of interest include, but are not limited to: human pluripotent stem cell differentiation: transdifferentiation of cardiac fibroblasts into cardiomyocytes; biofabrication techniques of engineered cardiac tissues; cardiac biomechanics; computational cardiophysiology; cardiotoxicity testing; arrhythmia and electrical coupling; cardiac vascularization; tissue engineered vascular grafts for cardiac applications; heart valve repair; cardiac delivery of exosomes, RNAs, or other biologics; in vitro microphysiological models of cardiac tissue and disease; preclinical applications of cardiovascular research technologies. We look forward to receiving your valuable contributions.

Guest Editors

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Deadline for manuscript submissions closed (20 January 2025)



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Editor-in-Chief

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