Special Issue

Reprogramming in Cardiac Tissue

Message from the Guest Editor

Cardiovascular diseases are still a leading cause of mortality in developed countries with highly limited therapy options. Thereby, the very limited regeneration potential of collapsed cardiomyocytes is a major treatment obstacle. Novel approaches toward personalized regenerative therapy and drug development have gained increasing importance. In particular, direct somatic cell reprogramming towards cardiovascular cells while avoiding a potentially teratogenic pluripotency state is expected to gain great importance. Moreover, in vitro testing utilizing organoid cultures derived from patient-specific programmed cardiovascular cells will likely enable personalized drug testing in precision medicine.

This Special Issue will broadly address topics from the basic science of somatic and stem cell reprogramming to their applications in cardiovascular regeneration and disease treatment, as well as novel pathways toward cardiovascular in vitro disease modeling. We accept original studies, reviews and technical reports in the field of cardiovascular cell programming, disease modeling and cell-based therapy written by scientists active in the field.

Guest Editor

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Message from the Editor-in-Chief

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