Special Issue

Cell Programming for Cardiovascular Disease Modeling and Therapy

Message from the Guest Editor

Cardiovascular diseases still represent a leading cause of mortality in the developed countries with highly limited therapy options. A main reason is the very limited regeneration potential of collapsed cardiomyocytes therefore novel approaches toward personalized regenerative therapy and drug development are of major importance. In recent years, forward programming of iPSCs as well as Direct Reprogramming of somatic cells and adult stem cells have introduced entirely novel options to circumvent obstacles commonly encountered in regenerative medicine by utilizing autologous cells as the source of treatment. This has greatly benefitted from efforts to identify and optimize master regulator combinations to redefine cellular fates. Multiple research groups have shown direct somatic cell conversion towards cardiovascular cells, thereby avoiding a pluripotent intermediate state. The current Special Issue will 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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