Special Issue

Pluripotent Stem Cells for Cardiac Differentiation and Disease Modeling

Message from the Guest Editor

Cardiovascular disease is responsible for the highest mortality rate worldwide. Since the groundbreaking discovery of human-induced pluripotent stem cells (iPSCs), many scientific reports have appeared on the differentiation of specialized cardiac cell types and derivation of patient-derived iPSCs for modeling cardiac disease or for potential therapeutic applications in regenerative medicine.

Despite these recent advances, significant hurdles need to be overcome. How can we accomplish cardiovascular cell cultures and multicellular vascularized cardiac tissues with a similar level of maturation, organization, and function as observed in vivo – if possible or required at all? How can we mimic monogenic, polygenic, or multifactorial human cardiac diseases, or important aspects or phases of cardiac disease? Current advances in various technologies, including stem cell differentiation, genetic modification, tissue engineering or organoid formation, microfabrication, and microfluidics (organs-on-chip), which are needed to close the gap between human in vitro models and the patient, will be discussed in this Special Issue.

Guest Editor

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Message from the Editor-in-Chief

Journal of Personalized Medicine (*JPM*; ISSN 2075-4426) is an international, open access journal aimed at bringing all aspects of personalized medicine to one platform. *JPM* publishes cutting edge, innovative preclinical and translational scientific research and technologies related to personalized medicine (e.g., precision medicine, pharmacogenomics/proteomics, systems biology, 'omics association analysis). *JPM* is covered in Scopus, the Science Citation Index Expanded (SCIE), PubMed, PMC, Embase, and other databases.

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