



Molecular Research of Cardiocluster

Guest Editor:

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Message from the Guest Editor

Three dimensional cardiac cell- and tissue-engineering models have been proven to be more effective and more relevant for cardiac cell therapy and disease modeling than conventional 2D culturing, thanks to their exquisite multicellular nature and inter-cellular communication that closely resembles in vivo cardiac microenvironment. CarioCluster, cardiac spheres, microtissue, though these 3D organoids come in one common feature they all share is that these 3D cellular structures are engineered with multiple types of progenitor, stromal, or stem cells. Functionally, cardiac organoids are designed to recapitulate the cell diversity of myocardium, protect cell delivery, and promote angiogenesis and cell survival. Additionally, they harbor the advantage as an in vitro surrogate of heart disease model suitable for drug testing and physiological assessment of cardiac tissue.

This Special issue aims to cover the latest developments of 3D cardiac organoids and their therapeutic potentials. Specifically, identification of novel mechanisms on paracrine signaling and inter-cellular communication within the organoids, advantages as cell therapy product, and application as drug testing model.





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Message from the Editor-in-Chief

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