

## Special Issue

# Cellular and Molecular Mechanisms of Heart Development: Implications for Heart Disease and Regeneration

### Message from the Guest Editor

Heart development is an intricate process that commences when clusters of cells form the primitive heart tube, which subsequently undergoes dynamic changes in morphology and cellular composition before finally establishing a fully functional and mature heart. The cellular and molecular processes that drive cardiac development are finely balanced, and any disruption can lead to a variety of cardiac diseases. This Special Issue aims to highlight the recent advances in understanding the cellular and molecular mechanisms of cardiac development and their implications in heart disease and regeneration. The topics may include (but are not limited to):

- Myocardium/endocardium/epicardium;
- Neural crest cells;
- Second heart field;
- Cardiac fibroblasts;
- Cardiac valves;
- Cardiomyopathies;
- Congenital heart defects;
- Arrhythmias;
- Inflammation;
- iPS-derived models;
- Animal models;
- Transcriptomics, e.g., single cell/nuclei.

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### Guest Editor

Dr. Chris Jopling  
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### Deadline for manuscript submissions

closed (31 March 2024)



## International Journal of Molecular Sciences

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### Message from the Editor-in-Chief

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