

## Special Issue on Cardiogenesis and Congenital Heart Diseases

# CALL FOR PAPERS

Congenital heart diseases (CHDs) are the most common type of human birth defect, with an estimated occurring rate of 1% among live birth. Abnormal cardiac development and structure malformation play a pivotal role during the pathogenesis of CHDs. Despite the prevalence, origins of majority of these defects remain largely elusive. Recent advances in genetic profiling in both human and animal models have greatly expanded our knowledge of understanding signaling pathways and genetic networks regulating cardiogenesis. Genetic, epigenetic, or environmental factors perturbing this highly orchestral cardiogenic process can result in cardiac malformation and cause CHD. A variety of high resolution imaging modalities applied at clinical and laboratory settings revealed complex morphological and mechanical aspects of normal as well as abnormal cardiogenesis cardiac malformation. Meanwhile, we are facing the challenges of elucidating the underlying mechanisms of cardiac malformations that lead to CHDs and, more importantly, how to prevent and ultimately repair them.

This special issue invites submission of original research articles covering genetic and cellular regulation of cardiogenesis and cardiac malformation associated CHDs. Review articles describing the current state of the art in cardiogenesis and CHD research field are also encouraged to be submitted.

Potential topics include but are not limited to the following:

- ▶ Genetic regulation of cardiogenesis and congenital heart disease
- ▶ Cardiac malformation
- ▶ The use of extracellular matrix in the repair of congenital heart defects
- ▶ Acellular scaffolds and congenital heart surgery
- ▶ Gene expression and regulation in congenital heart diseases
- ▶ Genetics and genomics of congenital heart diseases
- ▶ The role of epigenetics in congenital heart diseases
- ▶ Cardiac imaging, for example, MRI in congenital heart diseases
- ▶ Heart regeneration and repair
- ▶ Animal models of cardiac malformation development and diseases

Authors can submit their manuscripts through the Manuscript Tracking System at <https://mts.hindawi.com/submit/journals/crp/cchd/>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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