



The Role of Growth Factors in Cardiovascular Development

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Message from the Guest Editors

We welcome review and original article contributions that increase our understanding of growth factor pathway regulation in cardiovascular development and disease. Multifunctional growth factors and cytokines such as TGF β s, FGFs, and BMPs are produced in most cardiac cell types during cardiovascular development and in adult cardiovascular tissues and regulated by integrins, extracellular matrix proteins. Transcription factors, such as TBX5 and NKX2-5, are involved in activation of Wnt and FGF signaling. Mutations and/or dysregulated expression of TGF β pathway genes, Fibrillin 1, TBX5 and ADAMTSL2 result in altered growth factor signaling and cardiovascular disease (CVD). We suggest the following themes for this Special Issue:

- Growth factors in cardiovascular development and congenital heart defects, aortopathy, valvular heart disease, adult cardiac remodeling and disease, age-related CVD and cardiac cachexia;
- Growth factors signaling mechanism using in vitro cell and tissue culture models of CVD;
- Novel models of growth factor signaling and its regulatory transcriptional factors in the cardiovascular system;
- Growth factors-based therapies of CVD and cardiotoxicity.

