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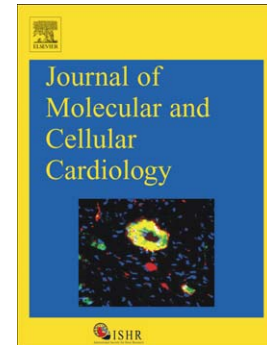
Molecular Networks Underlying Myofibroblast Fate and Fibrosis

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**Molecular Networks Underlying Myofibroblast Fate and Fibrosis**

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**Abstract**

Fibrotic remodeling is a hallmark of most forms of cardiovascular disease and a strong prognostic indicator of the advancement towards heart failure. Myofibroblasts, which are a heterogeneous cell-type specialized for extracellular matrix (ECM) secretion and tissue contraction, are the primary effectors of the heart's fibrotic response. This review is focused on defining myofibroblast physiology, its progenitor cell populations, and the core signaling network that orchestrates myofibroblast differentiation as a way of understanding the basic determinants of fibrotic disease in the heart and other tissues.

**Key Words**

Myofibroblast; Fibrosis; Differentiation; Actin Cytoskeleton; TGF $\beta$ ; Mitogen Activated Protein Kinases; TRP Channels, RNA Binding Proteins

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