



Cardiac Regeneration in Non-Mammalian Vertebrates

Guest Editor:

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Message from the Guest Editor

Dear Colleagues,

JCDD is launching a Special Issue on "Cardiac Regeneration in Non-Mammalian Vertebrates", which focuses on recent advances in understanding the genetic, molecular, and cellular mechanisms underpinning robust regeneration of a damaged heart in non-mammalian vertebrates, such as zebrafish and salamanders. Research using non-mammalian vertebrates has inspired new priorities in cardiac regeneration science. For example, classical and recent studies using newts and axolotls provided evidence for cell cycle re-entry of differentiated cardiomyocytes after injury. More recently, genetic fate-mapping studies using zebrafish definitively identified cardiomyocytes (not stem cells) as the primary cellular source for muscle replacement during regeneration, significantly influencing the direction of the field in seeking future therapies focused on cardiomyocyte renewal to repair human hearts.

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