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MicroRNAs and Mitochondrial Dynamics in Heart Regeneration

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Message from the Guest Editors

In recent decades, research has shown key roles for MicroRNAs in the post-transcriptional regulation of gene expression in major cardiac physiological and pathological events. Indeed, there has been an exponential growth in studies reporting the contribution of microRNAs to various processes underlying the pathology of cardiac muscle and as well as to potential therapeutic targets.

On the other hand, cardiomyocyte mitochondria are known to be highly dynamic, continuously moving and undergoing fission and fusion, forming interconnected networks; however, the involvement of these processes in heart disease and health is not fully understood. Abnormal mitochondrial dynamics lead to dysfunctional mitochondria and thus disrupt energy production and increase oxidative stress, resulting in cardiomyocyte apoptosis and heart tissue damage.

In this Special Issue, we would like to present the current progress in the heart field regarding these two important topics. We welcome original research papers and updated reviews on new insights into the pathogenesis, regulatory pathways and beneficial roles of miRNAs and mitochondrial dynamics in heart regeneration.



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Special Issue



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Message from the Editor-in-Chief

Genes are central to our understanding of biology, and modern advances such as genomics and genome editing have maintained genetics as a vibrant, diverse and fastmoving field. There is a need for good quality, open access journals in this area, and the *Genes* team aims to provide expert manuscript handling, serious peer review, and rapid publication across the whole discipline of genetics. Starting in 2010, the journal is now well established and recognised.

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