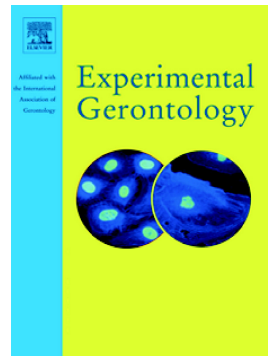


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Mechanisms driving the ageing heart

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# Mechanisms Driving the Ageing Heart

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## Abstract

Cardiovascular disease (CVD) is the leading cause of death globally. Although the number one risk factor for CVD is age, the detrimental biological processes that occur in the heart during ageing remain elusive. It is therefore vitally important to understand the fundamental mechanisms driving heart ageing to enable the development of preventions and treatments targeting these processes.

Cellular senescence has been described more than fifty years ago as the irreversible cell-cycle arrest which occurs in somatic cells. Emerging evidence suggests that cellular senescence plays a key role in heart ageing, however the cell-types involved and the underlying mechanisms are not yet elucidated.

In this review we discuss the current understanding of how mechanisms known to contribute to senescence impact on heart ageing and CVD. Finally, we will review recent data suggesting that targeting senescent cells may be a viable therapy to counteract the ageing of the heart.

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