

Making old hearts young again

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Ischaemic heart disease, characterised by reduced blood flow to the heart, is Australia's and the world's leading cause of death. It is most common in older people and the impact of the disease will continue to rise with an ageing population.

Director of Griffith's Heart Foundation Research Centre Professor John Headrick said older hearts become less resistant to damage during heart attack.

"Furthermore, new experimental therapies to reduce damage also appear less effective in older hearts. It is therefore critical that we understand how age alters the heart, and how older hearts respond to disease."

Together with researcher Dr Jason Peart, his team have identified normally protective processes within cardiac cells that become ineffective with age.

"When we experimentally target this 'cascade of proteins' it is possible to render an aged heart akin to a young heart in terms of its response to a heart attack. This type of research paves the way for new therapies designed to specifically manage heart disease in our older population," Professor Headrick said.

The research is currently supported by grants from the National Heart Foundation and research fellowships from the National Health and Medical Research Council (NHMRC).



Dr Jason Peart completed his undergraduate degree at Griffith and PhD in the Heart Foundation Research Centre, before moving to the US for a prestigious postdoctoral position supported by the American Heart Association.

He was lured back to Australia with a NHMRC Howard Florey Centenary Research Fellowship – a scheme designed to counteract the brain drain of Australian talent – and has since been awarded an NHMRC Career Development Award.

The award, which supports early career researchers who have demonstrated excellence in their respective fields, allows Dr Peart to continue studying the particular roles of adenosine and opioids in triggering the protein cascades to produce heart cell protection.

Source: Research Australia

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