

Novel drug from New Zealand offers hope for heart failure patients

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The first drug to temper the nervous activity from the brain to the heart



A novel drug is showing promise for alleviating heart failure, a common condition associated with sleep apnoea and a reduced lifespan.

The drug, known as AF-130, was tested in an animal model at the University of Auckland in New Zealand where researchers found it improved the heart's ability to pump, but, equally important, prevented sleep apnoea, which itself reduces lifespan .

"This drug does offer benefit for heart failure, but it's two for the price of one, in that it's also relieving the apnoea for which there is currently no drug, only CPAP (a breathing device), which is poorly tolerated," says Professor Julian Paton, director of the University's Centre for Heart Research.

When a person has a heart attack and subsequent heart failure, the brain responds by activating the sympathetic system, the 'fight or flight' response, as a way to stimulate the heart to pump blood. However, the brain persists with this activation of the nervous system, even when it is no longer required, and this together with the consequent sleep apnoea, contributes to the patient's reduced life expectancy. Most patients die within five years of a heart failure diagnosis.

"Another exciting factor for the scientists, who are from the University of Auckland and the University of São Paulo, Brazil, is that the drug is soon to be FDA approved, albeit for a different health issue, paving the way for human trials in the next year or two", Professor Paton says.