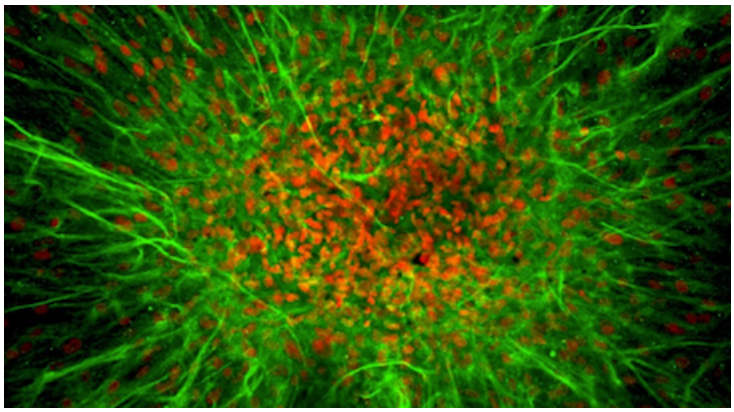
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Stem cells could be key to slowing ageing process: New Zealand study

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The goal is not to increase people's lifespan, but rather their ability to stay healthy for longer



A “serendipitous finding” by a team of researchers at the University of Auckland, New Zealand could shed light on why women tend to live longer and healthier lives than men.

Dr Trevor Sherwin, Professor of Ophthalmology in the Faculty of Medical and Health Sciences, says the secret to longevity may come down to our stem cells, which play a vital role in creating new cells that replenish our organs throughout our life and keep us healthy for longer.

While studying cell tissue in the eye, Professor Sherwin and his team observed a marked difference in the potency – that is, the ability to replenish cells – of the stem cells of women donors compared to those of men. Even the stem cells taken from women donors in their 70s and 80s were more potent than those in much younger men.

As part of the project, Professor Sherwin has been working with Dr Julie Lim, a senior lecturer in the Molecular Vision Laboratory located in the Department of Physiology, to delve deeper into exactly why male stem cells are more vulnerable to the effects of ageing than women’s.

“There is a hormonal link,” Professor Sherwin says. “Oestrogen tends to promote the production of antioxidants in the body, while testosterone tends to do the opposite – it tends to demote antioxidants.”

Because oxidation damages stem cells, the challenge now is to figure out exactly what gene is responsible for causing this damage.