



MEDIA RELEASE

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WORLD FIRST AS CHARITIES UNITE TO AWARD \$2.5 MILLION TO TOP CANCER RESEARCHER TARGETING BREAST AND PROSTATE CANCER

NEW TREATMENT APPROACH FOR BREAST AND PROSTATE CANCER TO TAKE CANCER RESEARCH TOWARDS 2030

Leading Australian cancer researcher Professor Wayne Tilley was today presented with a \$2.5 million Breast & Prostate Cancer Linkage Grant, thanks to a groundbreaking collaboration between the National Breast Cancer Foundation (NBCF) and the Movember Foundation.

This award will enable Professor Tilley and collaborators to explore an innovative new treatment path for breast and prostate cancer, which has potential to transform the lives of women and men around the world afflicted with breast or prostate cancer.

Combined, more than 6000 Australians die of breast and prostate cancers each year, making them the second biggest cancer killers in Australia¹.

Although at first it may not seem like the two cancers have much in common, the growth of these tumours is both driven by sex hormones, namely estrogens in breast cancer and androgens in prostate cancer.

Professor Tilley, Director of the University of Adelaide's Dame Roma Mitchell Cancer Research Laboratories, has built an impressive research career - spanning more than 30 years - that has been focussed on improving our understanding of how these sex hormones drive the growth and spread of both cancers. His work was instrumental in demonstrating that targeting the receptors for these sex hormones, namely the estrogen receptor and the androgen receptor, inhibits the growth of breast and prostate cancer.

"Current treatments for breast and prostate cancer deprive these receptors of the hormones that activate them. While these treatments have improved survival, a major problem is that the cancers don't like being deprived of sex hormones and become resistant to the therapy. Additionally, completely depriving the body of estrogen and androgen action can cause a range of severe side effects, including early menopause in women and erectile dysfunction in men," said Professor Tilley.

"Rather than persevering with this "sledge hammer" approach to inhibit the activity of estrogen and androgen receptors in breast and prostate cancer, which we've used for the past 70-100 years and at best yields incremental improvements, we need to be innovative and develop completely new therapeutic strategies," he said.

This trailblazing research project will investigate a new concept for the treatment of breast and prostate cancers: instead of completely blocking the sex hormone receptors by depriving the body of hormones, the team will test whether the receptors can be "reprogrammed" so that they no longer drive cancer growth but instead function as they would in normal breast or prostate tissues.

Another important aspect of this innovative strategy is that reprogramming of the hormone receptors could be achieved by repurposing existing drugs that are safe and already approved for other medical purposes, which would vastly increase the speed of translating findings from the laboratory to the clinic.



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Professor Tilley will lead an outstanding collaborative team comprising researchers from the University of Adelaide (Drs Luke Selth and Theresa Hickey), Monash University (Prof Gail Risbridger), Garvan Institute of Medical Research (A/Prof Elgene Lim and Prof Susan Clark), and the Cancer Research UK Cambridge Institute (Dr Jason Carroll).

The team also incorporates expert advisory groups of clinicians, researchers and patient advocates from around the world, including the Dana Farber Cancer Institute, University of Colorado, and University of North Carolina (USA), the University of Liverpool (UK), University of Toronto (Canada), the Netherlands Cancer Institute (Netherlands) and the Institute of Biology and Experimental Medicine (Argentina).

National Breast Cancer Foundation CEO Professor Sarah Hosking congratulated Professor Tilley and his research team. She said this new collaborative funding approach pioneered by NBCF and the Movember Foundation was a game-changer for the progression of cancer research in Australia.

“This collaborative fund strengthens NBCF’s goal to achieve zero deaths from breast cancer by 2030, and will help us to speed up developments of new treatments for breast cancer. It also symbolises an enormous step forward for funding Australian cancer researchers in an increasingly challenging environment,” she said.

Charlotte Webb, Country Director (Australia & NZ) for the Movember Foundation, said current treatments for prostate cancer often resulted in significant side effects including sexual issues, incontinence and associated anxiety and depression.

“This grant is bringing together the best and brightest cancer researchers in Australia and across the globe, and will be invaluable in our joint efforts to accelerate treatment outcomes for people diagnosed with breast or prostate cancer,” she said. Movember aims to halve prostate cancer deaths by 2030.

Professor Tilley said: “On behalf of our team, I want to thank both the NBCF and the Movember Foundation for supporting this new research project, which has the potential to change the way breast and prostate cancers are treated. This collaborative funding will make a huge impact on our research, with the end goal being to improve and save the lives of those affected by breast and prostate cancer.”

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About the Movember Foundation:

The Movember Foundation is the only global charity focused solely on men’s health, funding over 1,200 innovative projects across 21 countries. To date, they have raised hundreds of millions for men’s health programs supporting these critical areas: prostate cancer, testicular cancer, mental health and suicide prevention. Go to Movember.com to donate or participate.

About the National Breast Cancer Foundation:

The National Breast Cancer Foundation (NBCF) is the only national body that funds life-changing breast cancer research with money raised entirely by the Australian public. NBCF research has helped develop better therapies, greater understanding of ways to stop the spread of breast cancer and improved quality of life. Since its establishment in 1994, NBCF has awarded more than \$140 million to around 470 Australian-based research projects to improve the health and well-being of those affected by breast cancer.

References:

1. Cancer Australia <https://canceraustralia.gov.au/affected-cancer/cancer-types/breast-cancer/breast-cancer-statistics> (accessed 5 June 2017)