

## ASX Announcement

### Race Initiates FTO-Directed Kidney Cancer Preclinical Study

- Race enters a collaborative preclinical research program with The University of Newcastle to explore use of Bisantrene as a novel FTO-directed treatment for clear cell renal cell carcinoma (ccRCC)
- Research designed to demonstrate the utility of Bisantrene to treat this dangerous kidney cancer with important unmet clinical needs
- The project is Race's second step under Pillar 1 of its Three Pillar strategy, which is aimed at demonstrating Bisantrene's potential in inhibiting FTO in humans

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**25 March 2021** – Race Oncology Limited ("Race") is pleased to announce that it has entered into a new collaborative preclinical research program with The University of Newcastle. The work will be led by eminent cancer researcher, Associate Professor Nikki Verrills, who successfully ran Race's preclinical breast and ovarian cancer programs (ASX announcements: 24 November 2020, 23 February 2021, 9 March 2021).

This project will use cellular models to investigate Bisantrene as a novel treatment for clear cell renal cell carcinoma (ccRCC), a devastating form of kidney cancer. While there have been major improvements with kidney cancer treatment in recent decades, the five-year survival rate for advanced ccRCC is still as low as ~12%<sup>1</sup>.

Bisantrene has recently been identified as a potent targeted inhibitor of the Fat Mass and Obesity associated protein (FTO)<sup>2</sup>. Previous studies have observed that FTO enzyme activity is essential for ccRCC survival and the inhibition of FTO can directly kill more than 90% of ccRCCs<sup>3</sup>.

Race is pursuing Bisantrene therapies targeted at inhibiting FTO in both melanoma and clear cell renal cell carcinoma, as part of its Three Pillar strategy (ASX announcement: 30 November 2020). This work could lead to new kidney cancer treatments with improved safety and efficacy, especially for treatment resistant cancers.

The results of this study will support Phase II human trials of Bisantrene in ccRCC, currently scheduled to begin in Australia in early 2022.

This project is to start immediately with results expected to be reported over the coming 12 months as received by the Company.

**Chief Scientific Officer, Dr Daniel Tillett said:** *"This is a very important project for Race and we are looking forward to collaborating further with Associate Professor Verrills. Recent scientific developments have identified Bisantrene as a potent targeted agent of FTO which offers the possibility of novel treatment options for patients with kidney cancer that can rapidly be translated into the clinic. We are excited about this research which will further our knowledge of Bisantrene and it adds to the FTO-directed preclinical work we have just initiated in melanoma."*

Kidney cancer remains one of the most dangerous cancers with approximately 73,750 cases in the USA and 4,193 in Australia in 2020, of which ccRCC makes up approximately 70% of all cases<sup>1,4</sup>.

1. [www.cancer.net/cancer-types/kidney-cancer/introduction](http://www.cancer.net/cancer-types/kidney-cancer/introduction)
2. Su, R., Dong, L., Li, Y., Gao, M., Han, L., Wunderlich, M., et al. (2020). Targeting FTO Suppresses Cancer Stem Cell Maintenance and Immune Evasion. *Cancer Cell*, 38(1), 79–96.e11.
3. Xiao, Y., Thakkar, K. N., Zhao, H., Broughton, J., Li, Y., Seoane, J. A., et al. (2020). The m6A RNA demethylase FTO is a HIF-independent synthetic lethal partner with the VHL tumor suppressor. *Proceedings of the National Academy of Sciences*, 117(35), 21441–21449.
4. [www.canceraustralia.gov.au/affected-cancer/cancer-types/kidney-cancer/kidney-cancer-australia-statistics](http://www.canceraustralia.gov.au/affected-cancer/cancer-types/kidney-cancer/kidney-cancer-australia-statistics)

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### **About Associate Professor Nikki Verrills**

Since completing her PhD in 2005 on chemotherapy resistance in childhood leukaemia, Associate Professor Verrills was awarded a Peter Doherty Postdoctoral Fellowship from the National Health and Medical Research Council in 2006. In the same year she was the inaugural recipient of a Hunter Medical Research Foundation grant for young cancer researchers. Since then she has established an innovative research lab at the University of Newcastle studying the differences between cancer cells that respond well to drug treatments and those that do not.

Prof Verrills is currently supported by a fellowship from the Australian Research Council and project funding from the National Health and Medical Research Council. She has published over 60 journal articles with an H-index of 24.

### **About Race Oncology (ASX: RAC)**

Race Oncology is an ASX listed precision oncology company with a Phase II/III cancer drug called Bisantrene.

Bisantrene is a potent inhibitor of the Fat mass and obesity associated (FTO) protein. Over-expression of FTO has been shown to be the genetic driver of a diverse range of cancers. Race is exploring the use of Bisantrene as a new therapy for melanoma and clear cell renal cell carcinoma, which are both frequent FTO over-expressing cancers. The Company also has compelling clinical data for the use of Bisantrene as a chemotherapeutic agent with reduced cardiotoxicity in Acute Myeloid Leukaemia (AML), breast and ovarian cancers and is investigating its use in these areas.



Race is pursuing outsized commercial returns for shareholders via its 'Three Pillar' strategy for the clinical development of Bisantrene.

See more at [www.raceoncology.com](http://www.raceoncology.com).

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