ASX Announcement

Second independent study shows Bisantrene inhibits FTO

- Bisantrene shown by the University of Chicago to target the *Fat Mass and Obesity associated protein* (FTO)
- Bisantrene able to treat skin cancer in mice via inhibition of FTO at non-toxic concentrations
- Confirms earlier FTO-targeted Bisantrene results by the City of Hope Hospital

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15 April 2021 – Race Oncology Limited ("Race") is pleased to share details of a recent scientific publication in the prestigious journal *Nature Communication,* confirming Bisantrene is a highly effective inhibitor of the *Fat Mass and Obesity associated protein* (FTO)[1].

This independent work was performed by a research team at the University of Chicago led by prominent Professors Chuan He and Yu-Ying He, and builds on the original identification of Bisantrene as a potent FTO inhibitor by Professor Chen and his team at the City of Hope Hospital in 2020[2]. Prof. Chuan He's team was the first to identify FTO as a m^6A RNA demethylase[3] and its involvement in many cancers.

In this new work, the University of Chicago team has identified that FTO plays a critical role in the development of skin cancers caused by low-level arsenic exposure (which promotes tumour growth) and that Bisantrene-targeted inhibition of FTO limits the growth of these skin cancers in both cell culture and mice.

The importance of this work is highlighted by the ongoing replication crisis in cancer research where many of the most exciting discoveries have not been able to be repeated in independent laboratories[4]. Independent confirmation of Bisantrene's ability to target FTO further supports the clinical potential of Race's Pillar 1 program (ASX announcements: 30 November 2020).

Chief Scientific Officer, Dr Daniel Tillett said: *"The independent confirmation that Bisantrene is able to target FTO and treat skin cancer by such a distinguished team is of great importance. Many scientists and pharmaceutical companies are sceptical of potential cancer breakthroughs until they have been replicated by an independent group of researchers. This new paper repeating the earlier FTO work of the City of Hope Hospital is a major step forward for our clinical plans for Bisantrene."*

1. Cui, YH., Yang, S., Wei, J. *et al.* (2021) Autophagy of the m^6A mRNA demethylase FTO is impaired by low-level arsenic exposure to promote tumorigenesis. *Nat Commun* **12,** 2183

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. Jia, G., Fu, Y., Zhao, X. *et al.* (2011) *N*6-Methyladenosine in nuclear RNA is a major substrate of the obesity-associated FTO. *Nat Chem Biol* **7,** 885–887

4. www.sciencemag.org/news/2018/07/plan-replicate-50-high-impact-cancer-papers-shrinks-just-18

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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.

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