RACE ONCOLOGY

ASX Announcement

RC220 Toxicology and Safety Pharmacology Studies Initiated

- Non-clinical toxicity and safety studies of Race's new bisantrene formulation for peripheral infusion, RC220, to be completed by Attentive Science and Agilex Biolabs
- The studies will provide the Good Laboratory Practice and supporting study data required to begin human clinical trials with RC220
- Complete data package expected end Q2, CY2024

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5 October 2023 – Race Oncology Limited ("Race") is pleased to announce that it has signed contracts with Attentive Science (USA) and Agilex Biolabs (Australia) to complete a package of Good Laboratory Practice (GLP) toxicology and safety pharmacology studies. The studies are required to support human clinical trials of Race's flagship bisantrene formulation for peripheral infusion, RC220.

Extensive historical and modern clinical data has been collected around the safety and efficacy of bisantrene in humans. RC220 is a patentable new formulation of bisantrene that will enable safer and more patient friendly peripheral infusions (ASX Announcement: 28 September 2022), and while it contains the same active pharmaceutical ingredient (API) as previous formulations, RC220 is considered a new 'drug product'. All new drug products must pass a panel of toxicology and safety pharmacology preclinical studies to: (i) show that they are safe for use in humans and (ii) establish a safe starting dose for Phase I dose-escalation studies. The data for RC220 will be used in all regulatory submissions requesting approval for its use in clinical trials, including US FDA Investigational New Drug (IND) applications.

Attentive Science was chosen as the most suitable contractor for the toxicology and safety pharmacology studies. An important component of the work is quantification of the bisantrene present in various biological samples. Agilex Biolabs, a partner of Attentive Science and Australia's largest provider of GLP-compliant bioanalytical services, was selected to complete this important aspect. Race has previously engaged Agilex Biolabs to develop validated GLP assays that meet global regulatory standards to quantify bisantrene levels in human/patient samples from Race clinical trials.

Work will commence immediately, with final reporting expected end Q2, CY2024. The total cost is AUD$2.74 million, with most expenses expected to be eligible for the Australian Taxation Office (ATO) research and development (R&D) tax incentive (43.5%).

Executive Director Dr Pete Smith commented: *"These critical studies represent a significant milestone for Race and the clinical and commercial development of RC220 by establishing bisantrene's known safety profile in its new formulation. Attentive Science and Agilex Biolabs are impressive and complementary organisations, each specialising in the different aspects of the required work. We are confident that in executing these studies they will meet our high expectations in terms of time, cost and quality."*

Q&A

What is the commercial significance of these preclinical GLP studies?

Bisantrene has an extensive clinical history, having undergone trials in a wide range of cancers in the 1980's.[1] In early clinical studies, it was observed that bisantrene precipitates at the site of infusion due to its low solubility in blood. This precipitation issue prevented the safe infusion of bisantrene via a patient's peripheral vein (i.e., the vein of the arm or leg).[2] In later trials, administration of bisantrene was performed using a central venous catheter, whereby a dilute solution of bisantrene is infused into one of the large blood vessels near the heart. This approach allows rapid dilution of bisantrene in the blood and avoids drug precipitation. The central venous catheter approach has been used with Race Oncology's bisantrene formulation, RC110, in two AML clinical studies undertaken at the Chaim Sheba Medical Centre, Israel (ASX Announcements: 14 May 2019 and 27 May 2022).

The use of central venous catheters is not standard practice in solid tumour oncology indications, such as breast cancer. To expand the use of bisantrene beyond treatments where central lines are commonly used (e.g., blood cancers), Race Oncology embarked on a R&D program to develop an innovative formulation that would allow bisantrene to be administered safely via peripheral veins (i.e. RC220; ASX Announcement: 28 September 2022). RC220 is currently being manufactured to Good Manufacturing Practice (cGMP) standards at Ardena (Belgium) (ASX Announcement: 12 July 2023). Since RC220 is considered a new drug product by regulators, it must be assessed for safety using standard preclinical GLP studies. Importantly, RC220 has been designed to provide similar toxicology and pharmacology to the current clinical RC110 formulation, minimising any potential new safety concerns.

What does GLP and non-GLP mean?

Good Laboratory Practice (GLP) is a quality system of controls for research laboratories and organisations to ensure the uniformity, consistency, reliability, reproducibility, quality and integrity of pharmaceutical products in development.[3] Non-clinical toxicology and safety pharmacology studies supporting the entry of new drug products into clinical trials need to meet GLP standards, which are extremely rigorous, distinctly-defined experimental protocols to ensure integrity of the results. For example, solutions of the drug formulations prepared for experiments must have their drug content confirmed to reside within tight specifications using validated analytical methods and all experiments must be performed by qualified personnel, with detailed records kept of their training. GLP-compliant studies form a mandatory part of any clinical trial enabling data package. They are slower and more expensive than non-GLP studies, but ensure that the drug product used in clinical trial is consistent and as safe as possible for use in humans.

Does Race need to wait for Ardena to deliver the cGMP RC220 formulation before undertaking these studies?

No. The engineering batch of RC220 vials produced at Societal (ASX Announcement: 07 July 2023) will be used in the GLP studies, meaning the work can get underway immediately.

References

1. Rothman, J. The rediscovery of bisantrene: a review of the literature. *Int. J. Cancer Res. Ther.* **2017**, 2(2), 1-10

2. Powis, G.; Kovach, J. S. Disposition of bisantrene in humans and rabbits: evidence for intravascular deposition of drug as a cause of phlebitis. *Cancer Res.* **1983**, 43, 925-929.

3. https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfcfr/CFRSearch.cfm?CFRPart=58

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About Race Oncology (ASX: RAC)

Race Oncology (ASX: RAC) is an ASX-listed clinical stage, global biotechnology company with a dedicated mission to be at the heart of cancer care.

Race's lead asset, bisantrene, is a small molecule anthracene chemotherapeutic. Bisantrene has a unique and rich clinical history with demonstrated therapeutic benefits in both adult and paediatric patients, a well characterised safety profile, and compelling clinical data demonstrating an anti-cancer effect and less cardiotoxicity than other comparable agents.

Race is developing bisantrene to address the high unmet need of patients across multiple oncology indications, with an initial focus on metastatic breast cancer (lead indication) and acute myeloid leukaemia (AML) exploring anti-cancer plus cardio-protection in synergy with known standards of care.

As part of its clinical and preclinical programs, Race is investigating the effect of bisantrene on the m^6A RNA pathway, following independent research by the City of Hope identifying bisantrene as a potent inhibitor of FTO (Fat mass and obesity-associated protein). Dysregulation of the m^6A RNA pathway has been described in numerous peer reviewed studies to be a driver of a diverse range of cancers.

Race Oncology is in collaboration with City of Hope, MD Anderson, Sheba City of Health, UNC School of Medicine and University of Newcastle, and is actively exploring partnerships, licence agreements or a commercial merger and acquisition to accelerate access to bisantrene for patients with cancer across the world.

Learn more at www.raceoncology.com

If you have any questions on this announcement or any past Race Oncology announcements, please go to the Interactive Announcements page in our Investor Hub https://announcements.raceoncology.com

Race encourages all investors to go paperless by registering their details with the Company's share registry, Automic Registry Services, at www.automicgroup.com.au.

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