ASX Announcement

Racura Oncology Develops Novel Cardioprotection Blood Test to Accelerate the RC220 CPACS Trial

- Novel blood-based test for assessing anthracycline cardioprotection has been developed by Racura scientists, based on the recently identified mechanism of action of (E,E)-bisantrene
- Test to be used in the current RAC-010 cardioprotection trial to collect data from patients on the ability of RC220 to protect the molecular pathways responsible for anthracycline cardiotoxicity
- Use of the test in CPACS RAC-010 trial required regulatory approval of a modified protocol.

11 February 2026 – Racura Oncology Limited ("Racura") is pleased to announce that its scientists have developed a new blood-based molecular test to assess the cardioprotective potential of RC220. This blood test will use patient samples from the RAC-010 cardioprotection and anticancer synergy (CPACS) trial to quantify the protective effects of RC220 on the molecular pathways causing anthracycline cardiotoxicity. Development of this test was made possible by the recent discovery of the mechanisms of action of (E,E)-bisantrene (ASX Announcement: 2 October 2025).

This blood test is intended to provide early clinical and scientific cardioprotective data from doxorubicin-treated patients in the RC220 dose escalation phase of the RAC-010 trial (ASX Announcement: 1 May 2025), more than two years earlier than originally planned. In addition, the trial changes required to use this test are expected to improve patient safety and aid recruitment.

Requirements to use the new blood test in the RC220 CPACS (RAC-010) trial

Modifications to the original RAC-010 clinical trial design were necessary to use the new blood test, principally the addition of an initial cycle of doxorubicin monotherapy (see Figure 1). This doxorubicin-only cycle establishes a molecular baseline for tissue damage and allows for correction of individual patient differences in doxorubicin metabolism.



Figure 1. Treatment cycle of the RAC-010 CPACS trial. (A) Original protocol. **(B)** Modified protocol.

Approval of the trial protocol changes required agreement from all parties, including sites, investigators, sponsor, ethics committees, clinical research organizations, and national regulators in Australia, Hong Kong, and South Korea. The significant differences in clinical practice and documentation needs across the sites and jurisdictions necessitated extensive co-ordination by the Racura clinical team to generate a revised trial protocol acceptable to all parties. This was a complex process that has taken approximately six months of diligent effort by all involved.

Although recruitment for the trial was not stopped, investigators have been careful when enrolling patients over the past six months due to the anticipated protocol changes and because they could not identify individuals who might not be able to tolerate doxorubicin in combination with RC220.

Encouragingly, recruitment activity has recently increased with three patients now in pre-screening, which if successfully enrolled, will enable completion of Cohort Dose Level 1.

Approval of the amended trial protocol has been received from the Bellberry Human Research Ethics Committee (HREC) enabling the three Australian sites to start using the updated trial protocol. Final ethics and regulatory data packages have been submitted to the two Hong Kong Institutional Review Boards (IRBs) and the Hong Kong Department of Health (DOH), with approvals expected in the coming weeks. Final translated data packages will be submitted to each of the four local Korean IRBs and to the Korean Ministry of Food and Drug Safety (MFDS) national regulator in the next two weeks, enabling the four South Korean sites to open for patient recruitment upon approval and site activation.

Management commentary

Chief Executive Officer, Dr Daniel Tillett commented: *"Clinical trials often present difficult management choices. New discoveries and tests can accelerate the collection of key clinical data if changes are made to the trial, but any changes could delay patient recruitment in the short term.*

At Racura we have always sought to do what is in the best long-term interest of patients and investors. I believe we have made the right choice to undertake these trial changes to help answer sooner if RC220 can protect the hearts of patients from the permanent and debilitating damage caused by anthracyclines."

-ENDS-

Q&A

Why are novel blood tests helpful in clinical trials?

Clinical blood tests provide objective information about a biological process, disease state, or how a patient responds to a medical treatment or drug. Monitoring tests can be used to track disease progression, recurrence, or the effectiveness of a treatment over time.

In the case of the new blood test developed by Racura, we will use blood samples collected from patients during their treatment to measure the protective effects of (E,E)-bisantrene on the molecular damage doxorubicin causes to tissues, such as the heart. While not proof of clinical efficacy (this requires large and controlled clinical trials measuring the heart function in patients exposed to an anthracycline and RC220), this new blood test is designed to provide scientifically convincing clinical evidence of RC220's ability to provide the desired protection from anthracycline-induced cardiotoxicity.

Why didn't you invent this blood test sooner?

When the CPACS trial was originally designed we did not know at the molecular level how (E,E)-bisantrene is able to protect the heart from anthracyclines like doxorubicin. Without this molecular knowledge we couldn't develop the new blood test.

Why haven't you told us how this new blood test works?

We share as much as we can with our shareholders, but certain data can have commercial value if kept secret. While we don't intend to patent the blood test at this stage, if we were to explain how it works publicly, we could invalidate potential IP protection efforts.

Why did the RAC-010 CPACS trial design need to be changed?

For the new blood test to be able to measure if RC220 can target the molecular pathways responsible for doxorubicin cardiotoxicity, the test needs to measure the individual patient's baseline of cellular damage after doxorubicin exposure. The only way to collect this baseline data is to dose the patient with doxorubicin alone and collect blood samples. The original trial protocol did not include a doxorubicin monotherapy cycle, so this meant the protocol needed to be modified if the blood test was to be used.

A major benefit of adding a cycle of doxorubicin monotherapy is that it enhances patient safety. Many late-stage cancer patients cannot tolerate doxorubicin with the risk of this intolerance increasing when it is used in combination therapies. There is currently no method to predict in advance which patients can safely tolerate doxorubicin (see the following answer for more details). Because of this increased risk, the trial investigators have been careful in only inviting into the trial those patients they believe are physically able to tolerate the combination of RC220 and doxorubicin.

With the new changes to the trial protocol, patients who can't tolerate doxorubicin will now be excluded from being exposed to the more intense combination of doxorubicin with RC220. This change is expected to make the trial suitable for more late-stage cancer patients and hence aid recruitment.

How much sooner will this new blood test be able to answer if RC220 is cardioprotective in patients or not?

At least two years sooner than the original timetable. In the original trial design, the cardioprotective activity of RC220 could not be measured until the trial completed the Phase 1b dose expansion stage and the patients had their cardiac function measured using VO2peak and other cardiac tests. With the amended protocol, the cardioprotective effect of (E,E)-bisantrene is expected to be able to be measured

using this blood test even in the dose escalation patients who cannot undertake the VO2peak assessment. Importantly, the blood test has the potential to identify the optimal cardioprotective dose of RC220 from the escalating dose levels used in the trial.

Why are some patients unable to tolerate standard of care doses of doxorubicin?

There is considerable variation from person to person in how rapidly they metabolise (break down) doxorubicin. The rate of metabolism can vary more than 10-fold from person to person depending on a range of factors, including their general health, organ function, and the metabolism genes the patient has inherited.[1] At doxorubicin's standard of care dose of 60mg/m^2, some patients metabolise doxorubicin so rapidly that they have no side effects, while other patients metabolise doxorubicin so slowly that they are exposed to very toxic levels of the drug and suffer serious side effects. Unfortunately, there are no tests that can accurately predict the rate of doxorubicin metabolism at the individual patient level, meaning the only way of knowing if a patient can tolerate doxorubicin is to dose the patient, measure how serious the side effects are, and then modify the dose level in future doses.

1. M.A. Rudeka MA, A. Sparreboomb A, Garrett-Mayerc ES, et al. *Factors affecting pharmacokinetic variability following doxorubicin and docetaxel-based therapy.* European Journal of Cancer 40 (2004) 1170–1178.

Will these changes slow the future recruitment of patients to the trial?

No. These trial changes should increase the rate of patient recruitment as clinicians will now be able to avoid risking exposing patients who are not able to tolerate doxorubicin alone, to the expected more myelosuppressive combination of doxorubicin and RC220. In the patient population being recruited to this trial (late-stage solid tumour patients), safety is of special concern as many patients are frail, having failed many previous rounds of cancer treatment.

Will this trial change increase the trial cost?

No. While each patient will require more treatment (a minimum of 3 cycles instead of 2 cycles), the added patient safety offered by the upfront doxorubicin treatment cycle is likely to improve patient recruitment, with no expected overall change to current trial costs.

About Racura Oncology (ASX: RAC)

Racura Oncology (ASX: RAC) is a Phase 3 stage clinical biopharmaceutical company with a dedicated mission to be at the heart of cancer care.

Racura's lead asset, RCDS1 (E,E-bisantrene), is a small molecule anticancer agent that primarily functions via G4-DNA & RNA binding, leading to potent inhibition of the important cancer growth regulator MYC. RCDS1 has demonstrated therapeutic activity in cancer patients with a well characterised safety profile. Recent discoveries made by Racura have enabled composition of matter IP filings that provide for 20 years of patent protection over RCDS1.

Racura is advancing a proprietary formulation of RCDS1 (RC220) to address the high unmet needs of patients across multiple oncology indications, with Phase 3 clinical program in acute myeloid leukaemia (AML), Phase 1a/b program in mutant epidermal growth factor receptor non-small cell lung cancer (EGFRm NSCLC), and a Phase 1a/b program in combination with the anthracycline doxorubicin, where we aim to deliver both cardioprotection and enhanced anticancer activity for solid tumour patients.

Racura Oncology has collaborated with Astex, Emory University, MD Anderson, Sheba City of Health, UNC School of Medicine, University of Wollongong, and University of Newcastle. Racura is actively exploring partnerships, licence agreements, or a commercial merger and acquisition to accelerate access to RC220 for patients with cancer across the world. Learn more at www.racuraoncology.com.

If you have any questions on this announcement, or any past Racura Oncology announcements please visit our Interactive Announcements page.

Racura 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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