

ASX Announcement

Racura to Present (E,E)-bisantrene MYC Gene Silencing Data at American Association of Cancer Research Annual Meeting 2026

- Mechanism of action data describing how (E,E)-bisantrene silences MYC gene expression to be presented at the prestigious American Association of Cancer Research (AACR) Annual Meeting in San Diego, 17-22 April 2026
- Data highlights that (E,E)-bisantrene binds to and stabilises G4 regions within the MYC gene leading to reduced protein levels of the important cancer growth regulator MYC
- Presentation supports the Phase 1 HARNESS-1 trial of RC220 in combination with osimertinib in EGFRm non-small cell lung cancer and the Phase 3 trial of RC220 in acute myeloid leukemia.

18 March 2026 – Racura Oncology Limited (“Racura”) is pleased to announce that the company has been selected to present a poster at the American Association of Cancer Research (AACR) Annual Meeting 2026, to be held in San Diego (USA) from the 17 to 22 April 2026. The presentation will share results from preclinical studies demonstrating that (E,E)-bisantrene silences MYC gene expression by stabilising a G-quadruplex (G4) DNA sequence in the promoter region of MYC oncogene. The presentation abstract entitled “(E,E)-bisantrene silences c-MYC expression by stabilizing its promotor region G-quadruplex” is attached to this announcement. The abstract will be published in the AACR peer reviewed journal *Cancer Research* in April 2026.

Racura Oncology CEO and Managing Director, Dr Daniel Tillett commented: “I am delighted Racura Senior Scientist, Dr Sumit Sahni will be presenting this important preclinical work at the largest international cancer conference, AACR 2026. I would like to thank our entire preclinical team and collaborators for their exceptional work, which has been critical in advancing our understanding of RC220’s anti-cancer activity and which we believe has the potential to be a practice-changing therapy.”

The MYC protein acts as a master gene regulator that controls the expression of thousands of genes involved in cell growth, differentiation, survival, metabolic reprogramming, chemotherapy resistance, and immune surveillance.¹ The MYC gene promoter region contains several G4 DNA structures, which are known to silence MYC gene expression upon drug binding stabilisation.² The poster presentation explores how (E,E)-bisantrene functions as a G4 DNA stabiliser and silences MYC expression in cancer cells. Using various biophysical assays, Racura’s preclinical team and collaborators identify how (E,E)-bisantrene stabilises the MYC G4 DNA region. Nuclear Magnetic Resonance (NMR) and molecular docking modelling demonstrate that G4 DNA stabilisation requires two molecules of (E,E)-bisantrene. RNA-Seq analysis revealed that MYC-dependent downstream target genes are potently suppressed by (E,E)-bisantrene in non-small cell lung cancer cells.

1. Dhanasekaran, R. et al. The MYC oncogene – the grand orchestrator of cancer growth and immune evasion. *Nat. Rev. Clin. Oncol.* 19, 23–36 (2022).

2. Siddiqui-Jain, A., Grand, C. L., Bearss, D. J. & Hurley, L. H. Direct evidence for a G-quadruplex in a promoter region and its targeting with a small molecule to repress c-MYC transcription. *Proc. Natl. Acad. Sci.* 99, 11593–11598 (2002).

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(E,E)-bisantrene silences c-MYC expression by stabilizing its promotor region G-quadruplex

Background: G-quadruplex (G4) DNA and RNA are important non-canonical nucleic acid secondary structures that play key roles in many cellular processes. They regulate the expression and translation of several oncogenes, including the master cell growth regulator, MYC. Bisantrene is a small-molecule anticancer agent that has been shown to be safe and effective in >1500 clinical trial patients. This study characterized the binding and stabilization of a G4 region in the *c-MYC* promoter by the (E,E)-bisantrene isomer and silencing of *c-MYC* expression in cancer cells.

Methods: Circular dichroism spectroscopy established if (E,E)-bisantrene stabilizes the *c-MYC* promoter G4 structure, with surface plasmon resonance used to measure the binding affinity. Nuclear magnetic resonance spectroscopy provided structural insights into the binding interactions within the complex. Molecular dynamics simulations modelled the 3-dimensional structure of the complex. Changes in *c-MYC* gene expression were assessed across a range of cancer cell lines after treatment with (E,E)-bisantrene and RNA-seq with pathway analysis was performed.

Results: (E,E)-bisantrene was found to stabilize the *c-MYC* promoter G4 region, producing similar increases in melting temperature to other G4 ligands (i.e., pidnarulex and pyridostatin). NMR spectroscopy and molecular modelling suggest (E,E)-bisantrene binds with a 2:1 stoichiometry to the planar surfaces of the top and bottom G-tetrads. (E,E)-bisantrene potently inhibited *c-MYC* expression in multiple cancer cell lines. RNA-seq analysis showed (E,E)-bisantrene also decreased expression of other oncogenes containing G4 regions in their promoters, including *MET*, *TERT*, *VEGFA*, *ATF4* and *MDM2*. Pathway analysis of the RNA-Seq data demonstrated a transcriptomic profile similar to pidnarulex, a known G4-binding drug in early-stage clinical development.

Conclusion: (E,E)-bisantrene binds to and stabilizes the G4 structure contained within the *c-MYC* promoter region, leading to silencing of *c-MYC* gene expression. These studies support clinical evaluation of (E,E)-bisantrene as a new G4-targeting drug in MYC-driven tumors.

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, (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. (E,E)-bisantrene 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 (E,E)-bisantrene.

Racura is advancing a proprietary formulation of (E,E)-bisantrene (RC220) to address the high unmet needs of patients across multiple oncology indications, with a Phase 3 clinical program in acute myeloid leukaemia (AML), a 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.

Release authorised by:

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