

ASX Announcement

Updated Strategy and Investor Presentation

- Updated corporate strategy focused on clinical development within Australia to achieve commercial goals using available resources
- Program designed to establish anthracycline cardioprotection and clinical effects on the m⁶A RNA pathway using RC220 in a range of solid tumours
- Phase 1a/b trial fully funded from existing cash with a Bonus Option to reward loyal shareholders and fund Phase 2 efficacy studies in both solid tumours and AML.

22 November 2023 – Race Oncology Limited (“Race”) is pleased to announce an updated strategic plan designed to move its lead asset, reformulated bisantrene, RC220, through clinical studies that aim to build significant shareholder value within the constraints of current capital market conditions.

The presentation which outlines the update is appended. An online investor briefing is planned for this Thursday, 23 November at 11:30am Australian Eastern Daylight Time (AEDT), with registration details provided in an additional ASX disclosure today. Through the online briefing, new CEO, Dr Daniel Tillett and Executive Director, Dr Pete Smith will talk through the highlights of the plan and explain the Bonus Option Prospectus (“Offer”) which has been launched for shareholders today.

Race’s Independent Non-Executive Chair, Mary Harney commented: *“In releasing this clinical strategic plan, Race has considered how we can take the new formulation RC220 bisantrene forward in a manner which recognises its strong clinical history and the current macro-economic environment. We have in bisantrene a drug that has demonstrated clinical anti-cancer efficacy and an excellent historical safety profile. Through the outlined clinical plan, we are seeking to prove, in humans, its ability to protect the heart in from the most widely used class of chemotherapeutics, the anthracyclines.”*

Chief Executive Officer, Dr Daniel Tillett commented: *“We have outlined a clear plan to move RC220 through important near-term development using an Australian-focused trial design. In tandem, we are releasing a prospectus (“Offer”) which rewards our shareholders with loyalty bonus options that will support the collection of robust Phase 2 clinical efficacy data and aid our pharma partnering discussions. The Bonus Option Offer is designed to thank our loyal shareholders for their support through what has been a challenging time for them, while also supporting a highly value-accretive clinical trial program in solid tumours and AML.”*

Executive Director, Dr Pete Smith commented: *“The strategic plan is designed to generate robust, high-quality clinical efficacy data for our new formulation of bisantrene – RC220 – across the areas of cardioprotection, m⁶A RNA & AML. We know that there is strong interest from clinicians in new agents that can reduce anthracycline-related cardiotoxicity. Our objective is to plug these important treatment gaps for patients, while driving towards a high value pharma transaction, in support of delivering significant returns to shareholders.”*

A copy of the updated strategic plan follows.

-ENDS-

About Race Oncology (ASX: RAC)

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

Race's lead asset, bisantrene, is a small molecule chemotherapeutic. Bisantrene has a rich and unique clinical history with demonstrated therapeutic benefits in both adult and paediatric patients, a well characterised safety profile, and compelling clinical data demonstrating an anticancer effect and less cardiotoxicity over certain anthracyclines, such as doxorubicin.

Race is advancing a reformulated bisantrene (RC220) to address the high unmet needs of patients across multiple oncology indications, with a clinical focus on anthracycline combinations, where we hope to deliver cardioprotection and enhanced anti-cancer activity in solid tumours. Race is also exploring RC220 as a low intensity treatment for acute myeloid leukaemia.

Race is investigating the effect of bisantrene on the m6A RNA pathway, following independent research published by the City of Hope identifying bisantrene as a potent inhibitor of FTO (Fat mass and obesity-associated protein). Dysregulation of the m6A RNA pathway has been described in numerous peer reviewed studies to be a driver of a diverse range of cancers.

Race Oncology has collaborated with Astex, City of Hope, MD Anderson, Sheba City of Health, UNC School of Medicine, University of Wollongong 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.

Release authorised by:

The Race Oncology Board of Directors
info@raceoncology.com

Media contact:

Jane Lowe +61 411 117 774
jane.lowe@irdepartment.com.au

NOVEMBER 2023



AT THE HEART OF CANCER CARE

INVESTOR UPDATE

ASX: RAC | RACE ONCOLOGY LIMITED | ABN 61 149 318 749

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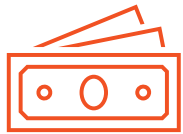
Strategy Principles



Shareholders first while meeting patient needs



Major commercial opportunities for Race are cardioprotection + anticancer activity in solid tumours, m⁶A RNA & AML



Phase 2 data demonstrating clinical efficacy provides maximum return on shareholder equity in a pharma transaction/sale – earlier pharma partnerships can support clinical progress & expansion



Capital markets are very challenging for small/medium biotechs – Race Oncology's clinical programs are carefully designed to achieve commercial goals within available resources

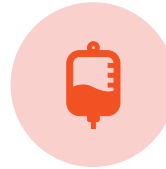
Overview

Race Oncology & Bisantrene

Race Oncology



Mission - advance bisantrene with the aim of demonstrating clinical efficacy in anthracycline cardioprotection, m⁶A RNA & AML with a commercial focus on pharma partnering & transactions



2022 – reformulated bisantrene to generate new IP & overcome historical issues with peripheral IV administration (RC220)



2021 – discovered bisantrene is not only less cardiotoxic than anthracyclines, but can protect the heart from doxorubicin toxicity while increasing anticancer efficacy



2016 - listed on the ASX to bring bisantrene to market as an orphan drug treatment for Acute Myeloid Leukemia (AML)

Bisantrene

Small molecule chemotherapeutic with clinical efficacy in a diverse range of solid and hematological cancers



Studied in over 50 clinical trials, 166 peer-reviewed publications. Approved for use in AML in France in 1988



Used in >1500 cancer patients. Development ended by Lederle in the late 1980s to focus clinical attention on mitoxantrone



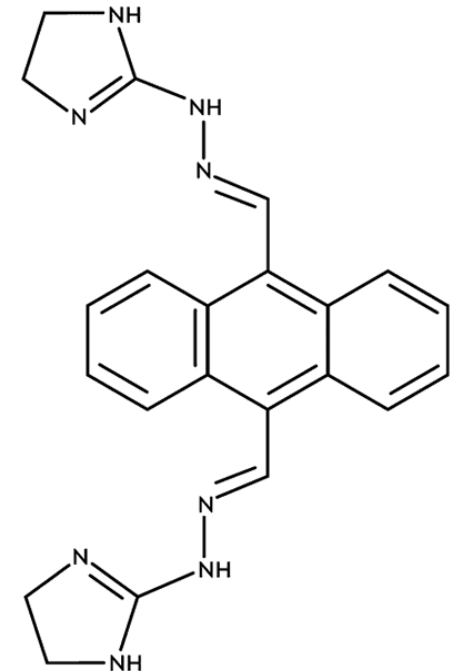
Demonstrated clinical anticancer efficacy with an excellent safety profile



Clinically shown to have reduced cardiotoxicity risk compared to current anthracycline chemotherapeutics



Cardioprotective & chemotherapeutic mechanisms of action



Bisantrene + Anthracycline Improved Anticancer Activity¹

Bisantrene shows potent cell-killing activity against a diverse range of human cancers

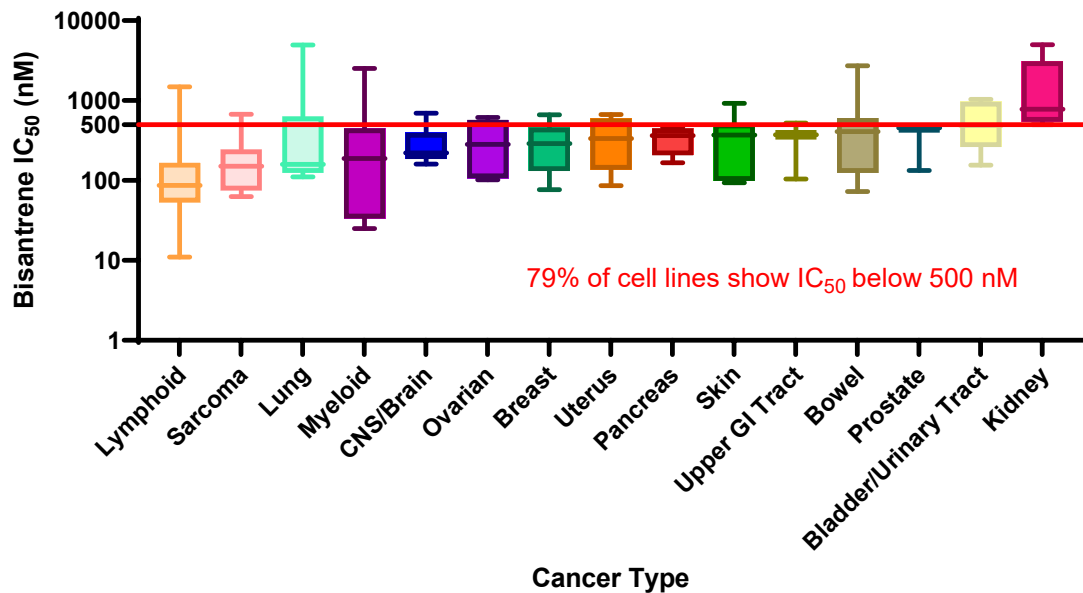


Figure 1. Bisantrene shows broad anti-cancer activity. The half-maximal inhibitory concentration (IC₅₀) was determined for bisantrene against 143 cancer cell lines derived from diverse human tumour types. Boxes show the 25%-75% range, with the line within each box representing the median IC₅₀ value. The upper and lower edges of the box represent the 75th and 25th percentiles, respectively. Whiskers show the minimum and maximum IC₅₀ values observed for each cancer cell type.

Bisantrene significantly improves the cancer cell killing activity of doxorubicin

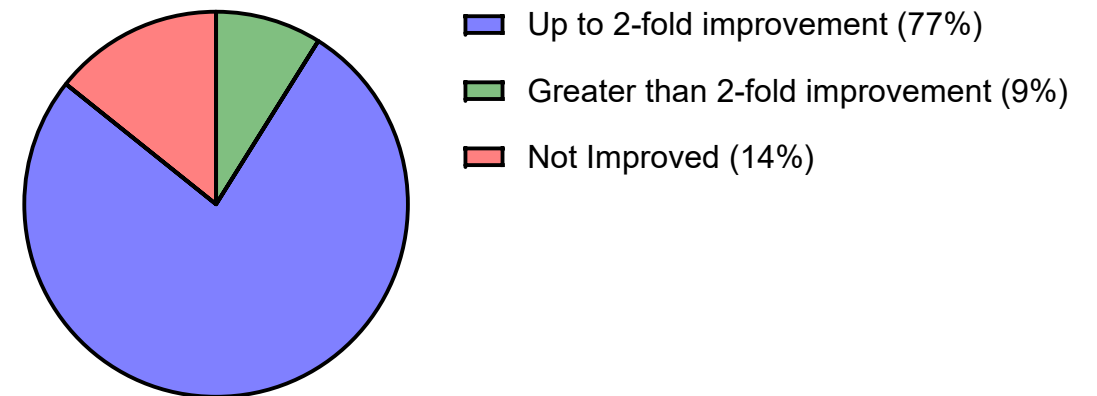


Figure 2. Combining bisantrene with doxorubicin increases cell-killing activity. Proportion of cell lines showing improved (i.e. lower) IC₅₀ values when comparing doxorubicin + bisantrene treatments to doxorubicin alone. A significant difference was observed for the median IC₅₀ of cells treated with doxorubicin + bisantrene when compared to doxorubicin alone, $p < 0.0001$. Statistical analysis was performed using the non-parametric Wilcoxon matched-pairs signed rank test.

Bisantrene + Anthracycline Protecting the Heart¹



Bisantrene protects the hearts of mice from permanent damage caused by the anthracycline doxorubicin

Heart protection was achieved using higher levels of chemotherapy treatment with no extra toxicity observed



Data supports using bisantrene with anthracyclines to protect the hearts of patients from chemotherapy

Promise of better cancer treatment with less side effects

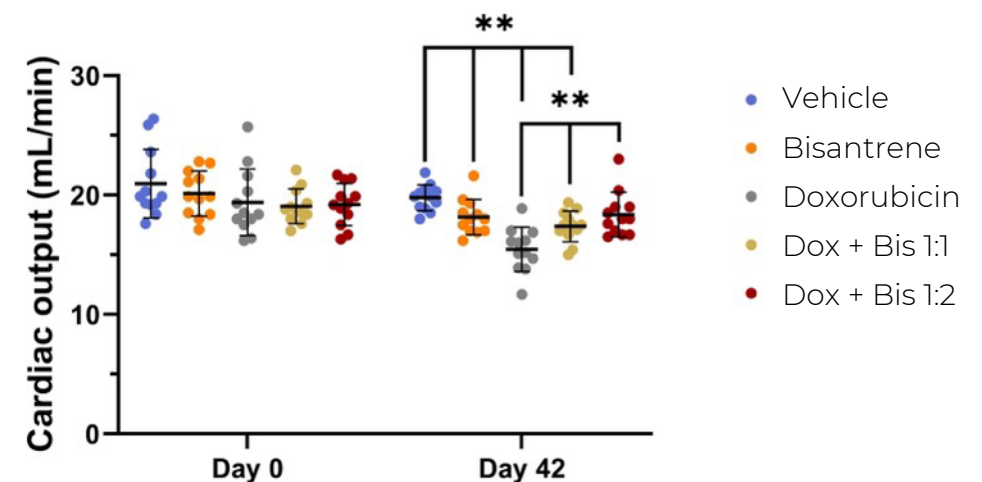


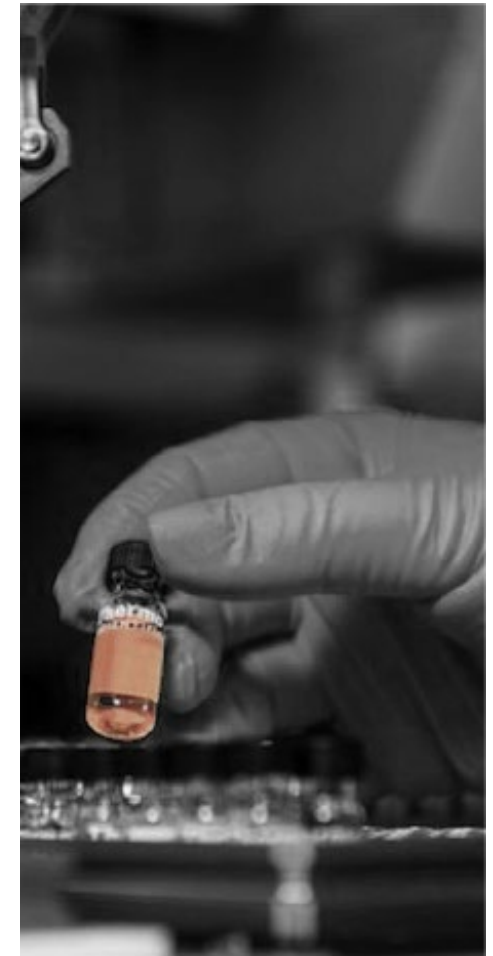
Figure 1. Cardiac output of C57BL/6 mice treated with either vehicle control (blue), bisantrene alone (orange), doxorubicin alone (grey), 1:1 molar ratio doxorubicin + bisantrene (yellow), or 1:2 molar ratio doxorubicin + bisantrene (red) at Day 0 and Day 42. All mice were dosed intravenously weekly with either: vehicle control, 7.33 mg/kg bisantrene, 5 mg/kg of doxorubicin, 5 mg/kg of doxorubicin + 3.67 mg/kg of bisantrene, 5 mg/kg of doxorubicin + 7.33 mg/kg of bisantrene. n=12 per group. Error bars = SEM. **p < 0.01.

New Bisantrene Formulation - RC220¹

RC220 – a high value reformulation

- Proprietary formulation for peripheral and central line IV use
- Designed to avoid drug precipitation issues whilst maintaining the activity and PK/PD properties of prior bisantrene formulations
- **Provides strong IP protection** – expected patent life into 2044
- Considered a new drug product by regulators and so requires a new non-clinical toxicology & safety data package – expected Q2 2024
- Currently being cGMP manufactured at Ardena – to be delivered Q1 2024

RC220 expected to be available for clinical use H2 2024¹



Opportunities

Bisantrene's commercial potential
in context

Anthracyclines* – Effective & Enduring

Highly effective chemotherapeutics across a wide range of cancers

For most cancer patients, a therapy targetable mutation cannot be identified, & immunotherapy is ineffective

Can cause serious adverse reactions, including cardiotoxicity, alopecia, nausea/vomiting, & myelosuppression

In the *NCI-MATCH* study of 795 cancer patients, only 5.1% were able to be assigned a targeted therapy after genomic screening¹
In the follow-up *ComboMATCH* study of 6,391 cancer patients, only 17.8% were able to be assigned a targeted therapy after genomic screening²

Oncologists will continue to rely on broad acting chemotherapy drugs like anthracyclines to effectively treat most cancer patients for the foreseeable future

*daunorubicin, doxorubicin, liposomal doxorubicin (Doxil), epirubicin, idarubicin, mitoxantrone, and valrubicin

1. Flaherty, K. T. et al. THE MOLECULAR ANALYSIS FOR THERAPY CHOICE (NCI-MATCH) TRIAL: LESSONS for GENOMIC TRIAL DESIGN. *JNCI: J. Natl. Cancer Inst.* 112, 1021–1029 (2020).

2. Meric-Bernstam, F. et al. National Cancer Institute Combination Therapy Platform Trial with Molecular Analysis for Therapy Choice (ComboMATCH). *Clin. Cancer Res.* 29, 1412–1422 (2023).

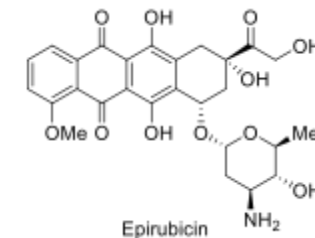
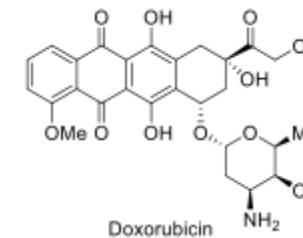
Anthracycline* Cancer Indications

FDA On Label Use¹

Acute lymphocytic leukemia	Ewing sarcoma
Acute nonlymphocytic leukemia	Soft tissue sarcoma
Acute myelogenous leukemia	Bone sarcoma
Hodgkin's lymphoma	Thyroid cancer
Non-Hodgkin's lymphoma	Neuroblastoma
Bladder cancer	Wilms tumor
Breast cancer	Small cell lung cancer
Ovarian cancer	Gastric carcinoma
Osteogenic sarcoma	Bronchogenic carcinoma
AIDS-related Kaposi's sarcoma	Prostate cancer
	Multiple myeloma

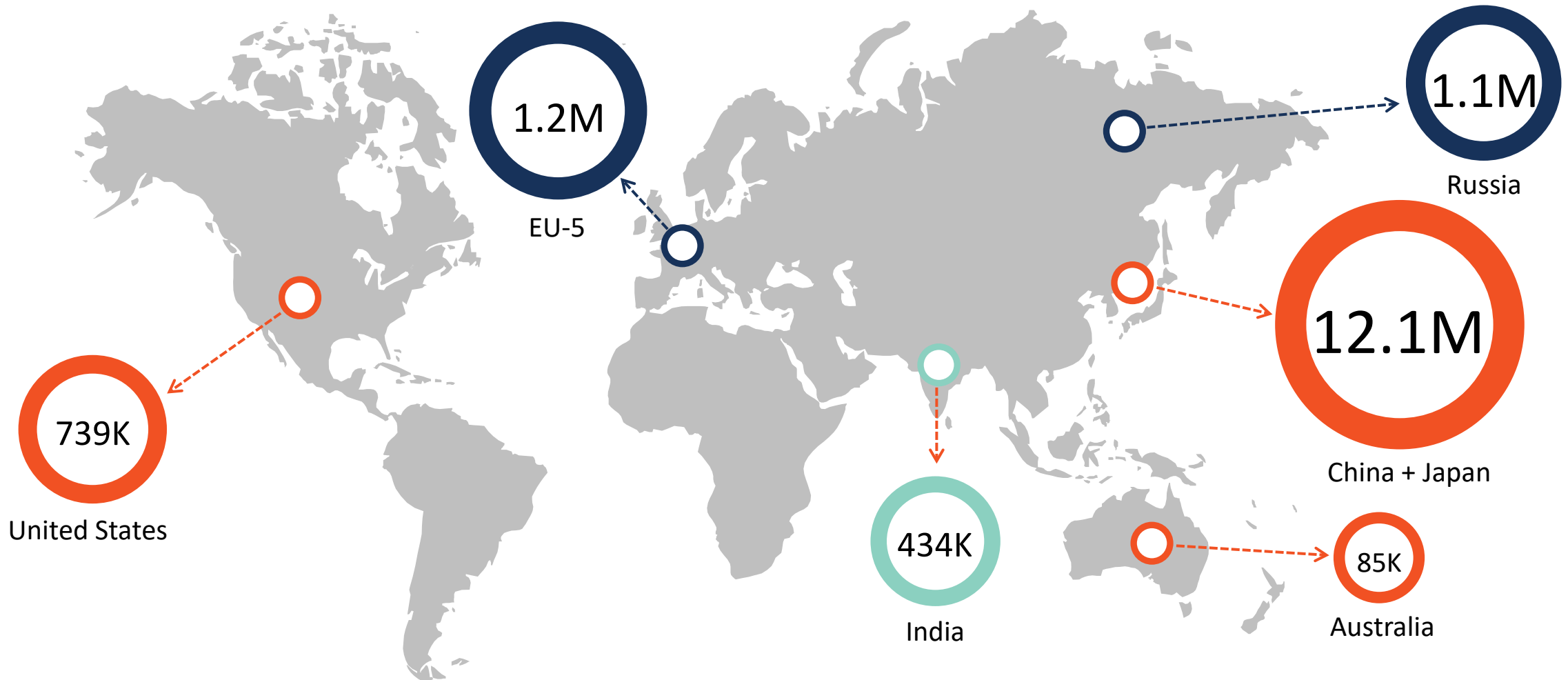
Off Label Use¹

Advanced Endometrial Cancer
Uterine Sarcoma
Metastatic Hepatocellular Cancer
Advanced Renal Cell Carcinoma
Thymomas & Thymic Malignancies
Waldenstrom Macroglobulinemia



*daunorubicin, doxorubicin, liposomal doxorubicin (Doxil), epirubicin, idarubicin, mitoxantrone, and valrubicin
1.. Triangle Insights (ASX Announcement: 14 April 2023)

Global Anthracycline Use¹



1. Estimated number of anthracycline doses used per year – Triangle Insights (ASX Announcement: 14 April 2023)

Anthracycline Cardiotoxicity

An under-appreciated problem in oncology

Anthracyclines cause permanent damage to the hearts of patients

Current solution – exclude use in high-risk patients and reduce lifetime dosing so that the acute, clinically-defined cardiotoxicity rate is now less than 2%, although most clinicians recognise sub-clinical heart damage with long-term serious health consequences is still common¹

Issue – standard-of-care measures of heart damage with the patient at rest miss the significant impact anthracyclines have on the heart function when the patient is active (Quality of Life)

Cardiotoxicity biomarker breakthrough - VO_2 Peak¹

The Baker Institute found in 206 cancer patients that standard-of-care cardiac measures are not strongly correlated with functional capacity or long-term heart failure risk

Anthracycline exposure was found to reduce average VO_2 Peak in patients by 8-11% (equivalent of 8 to 11 years of normal ageing) with the **rates of functional disability nearly doubled (15% vs. 26%)**

43% of the anthracycline exposure patients experienced a 10% or greater reduction in VO_2 Peak performance levels

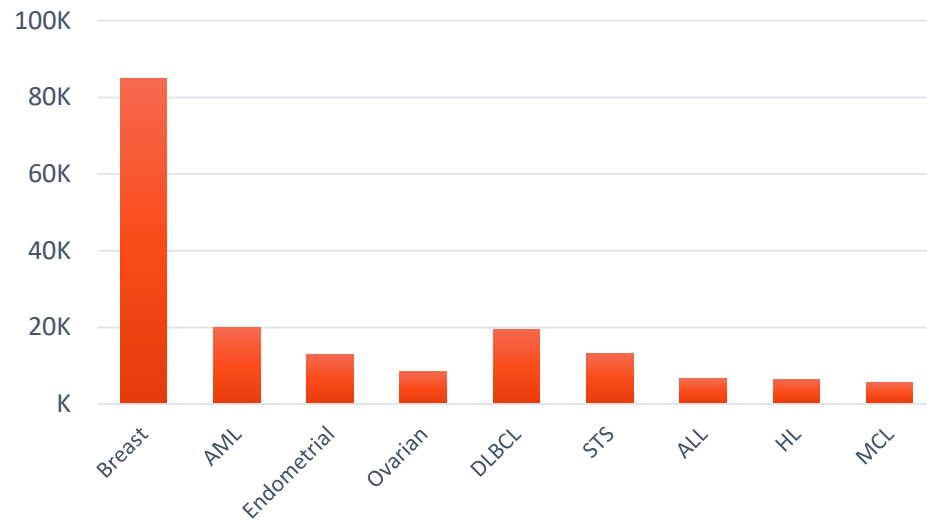
VO_2 Peak offers a clinically relevant endpoint that can provide clear evidence of cardioprotection and improvement in patient Quality of Life



1. Howden, E. J. et al. Traditional markers of cardiac toxicity fail to detect marked reductions in cardiorespiratory fitness among cancer patients undergoing anti-cancer treatment. Eur. Hear. J. - Cardiovasc. Imaging 22, 451–458 (2021).

Anthracyclines in the USA¹

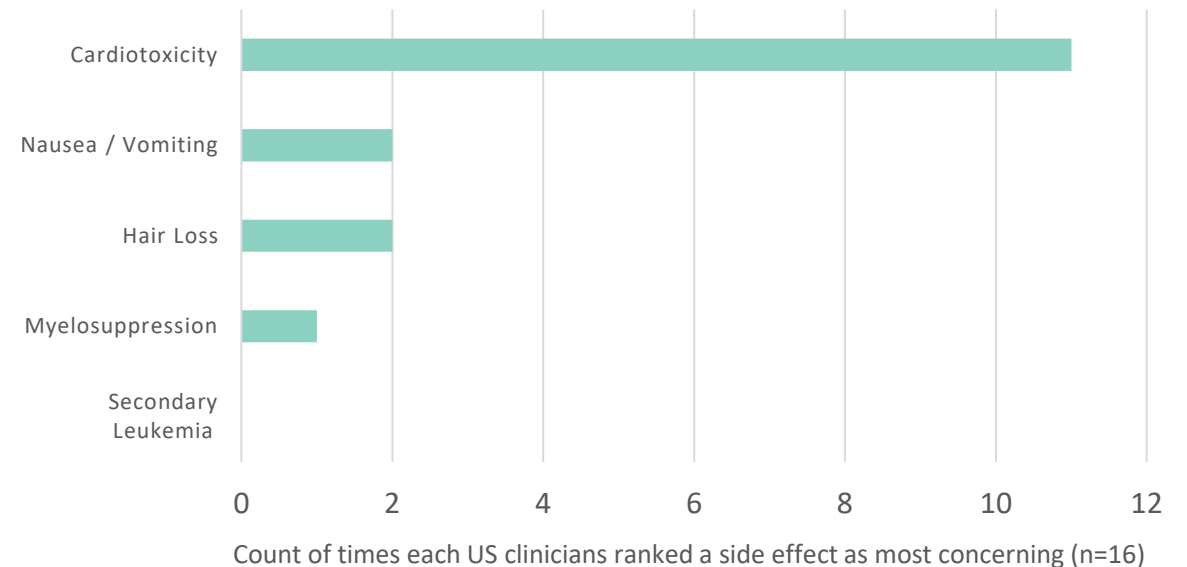
Anthracyclines continue to be widely used in the USA despite cardiotoxicity risks²



AML = acute myeloid leukaemia; DLBCL = diffuse large B cell lymphoma; STS = soft tissue sarcoma; ALL = acute lymphoblastic leukaemia; HL = Hodgkin's lymphoma; MCL = mantle cell lymphoma

There is strong US clinician interest in new agents able to reduce anthracycline cardiotoxicity³

Q. On a scale from 1 to 7, with one being 'not at all concerning' and 7 being 'extremely concerning', how concerning are the following anthracycline adverse events?



1. Triangle Insights (ASX Announcement: 14 April 2023)

2. Estimated number of patients that receive an anthracycline cycle in the USA each year – Triangle Insights

3. Primary market research conducted by Triangle Insights

Key Opinion Leaders

“
Scope for new cardio-protective therapy in addition to doxorubicin if it increases anti-cancer efficacy
”



Dr Chau Dang
Medical Oncologist
(Breast Cancer)
Memorial Sloan
Kettering Cancer Center
NY, USA



“
9-14% of patients on anthracycline regimens develop symptomatic cardiac dysfunction
”



Prof Aaron Sverdlow
Cardiologist
University of Newcastle,
NSW, Australia



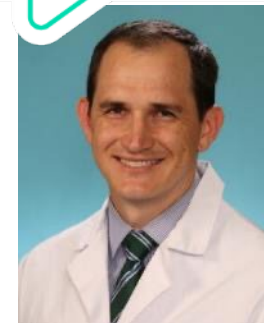
“
It depends how carefully you look, but at least 30% of patients who are treated with anthracyclines have evidence of cardiac toxicity
”



Prof Tom Neilan
Cardio-Oncologist
Harvard Medical
School, Boston, MA,
USA



“
Toxicity is highest in the first year, but risk of heart failure remains increased for the rest of their life
”



Prof Josh Mitchell
Cardio-Oncologist
Washington University,
St Louis, MO, USA



FDA Project Optimus¹

*“The goal of Project Optimus is to educate, innovate, and collaborate with companies, academia, professional societies, international regulatory authorities, and patients to move forward with a dose-finding and dose optimization paradigm across oncology that **emphasizes selection of a dose or doses that maximizes not only the efficacy of a drug but the safety and tolerability as well.**”*

Part of a larger focus by regulators and clinicians on patient Quality of Life (QoL) and the need to minimise the serious side-effects of oncology therapies

“Race is in the right place at the right time”

1. <https://www.fda.gov/about-fda/oncology-center-excellence/project-optimus>



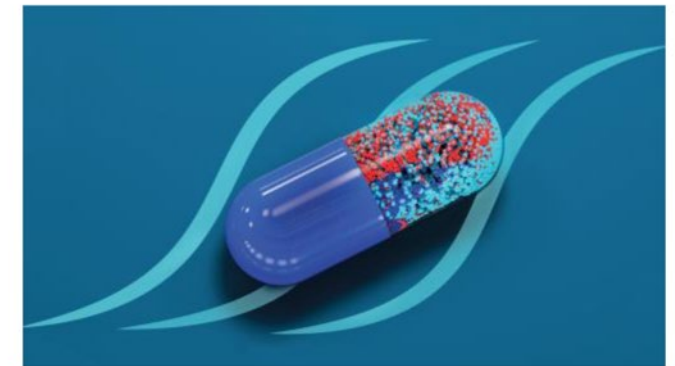
IN THIS SECTION

[← Oncology Center of Excellence](#)

Project Optimus

Reforming the dose optimization and dose selection paradigm in oncology

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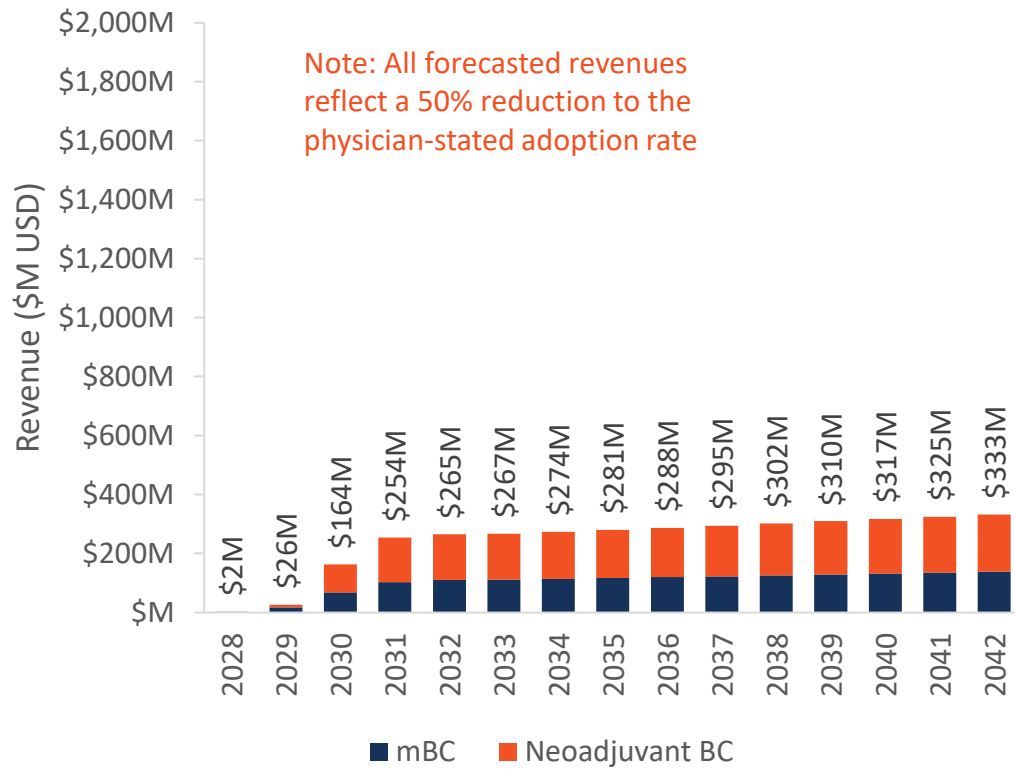


Purpose

The Oncology Center of Excellence (OCE) Project Optimus is an initiative to reform the dose optimization and dose selection paradigm in oncology drug development. Too often, the current

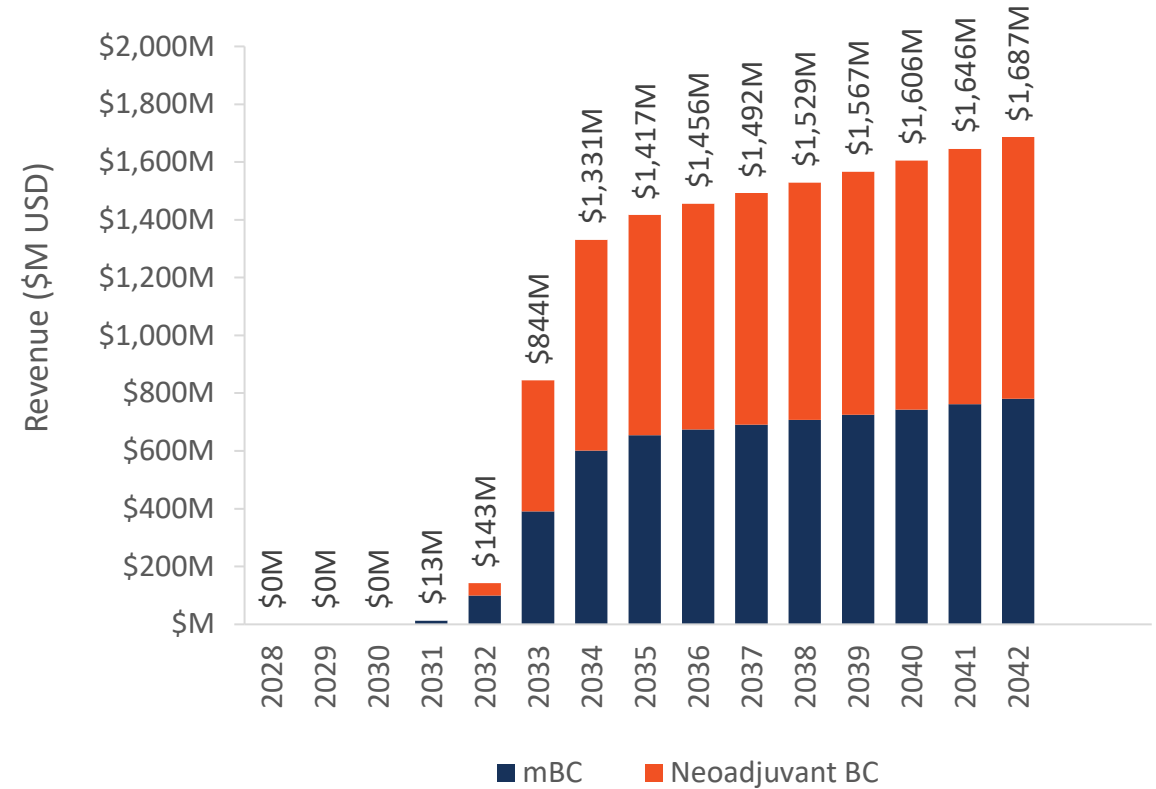
Bisantrene Market Potential - USA¹

Annual Revenue - Cardioprotection alone in breast cancer indications



USD\$4,000 base price/cycle for 4 cycles with a 3% annual net price increase after launch

Annual Revenue - Cardioprotection + anticancer activity in breast cancer indications

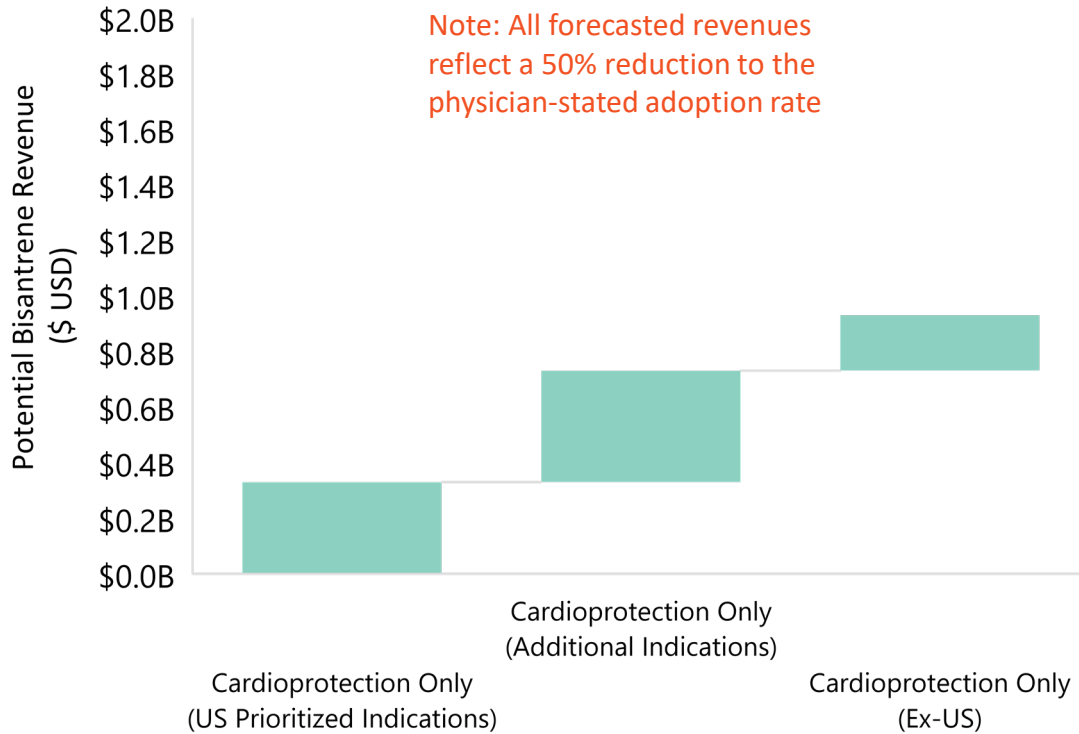


USD\$15,000 base price/cycle for 4 cycles with a 3% yearly net price increase after launch

mBC = metastatic breast cancer; BC = breast cancer
 1. Triangle Insights (ASX Announcement: 14 April 2023)

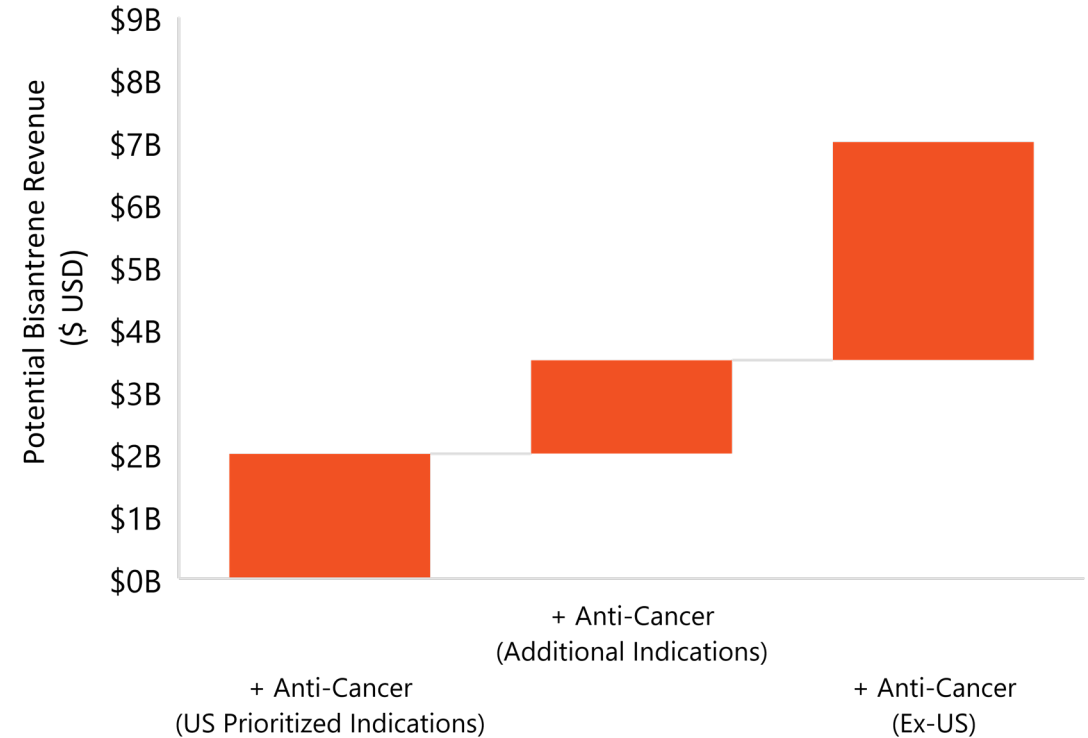
Bisantrene Market Potential – World¹

Annual Revenue – Cardioprotection Only



USD\$4,000 base price/cycle for 4 cycles with a 3% annual net price increase after launch

Annual Revenue - Cardioprotection + Anticancer

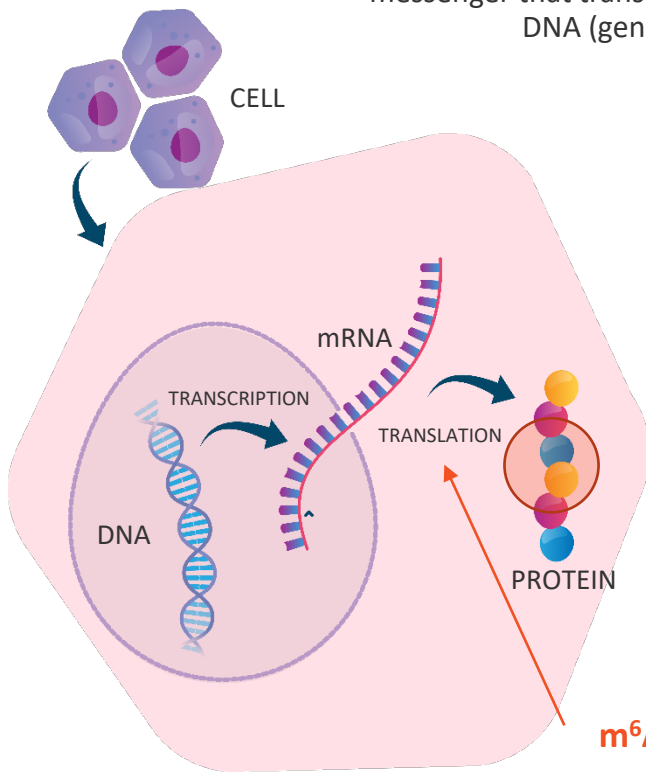


USD\$15,000 base price/cycle for 4 cycles with a 3% yearly net price increase after launch

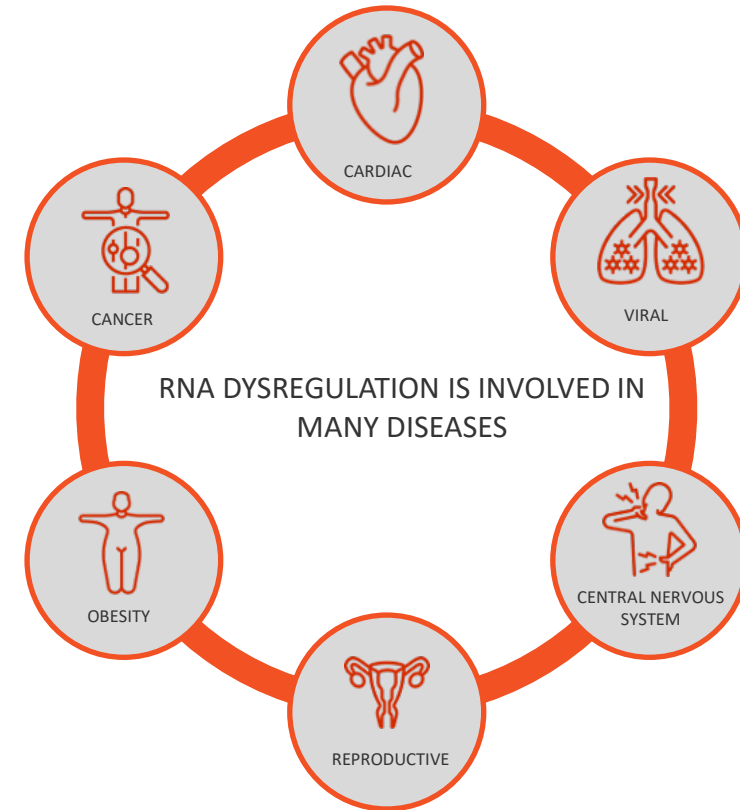
1. Triangle Insights (ASX Announcement: 14 April 2023)

m⁶A RNA dysregulation underlies many diseases

Ribonucleic acid (RNA) is the key information messenger that translates genetic instructions from DNA (genes) to cell proteins



Targeting RNA regulation pathways, like m⁶A methylation, may offer new treatment options for many diseases, including cancer



m⁶A RNA Opportunity

FTO – important role in human cancers?

Scientific discoveries over the last decade have identified dysregulation (loss of control) of RNA methylation as a key driver of cancer development¹

Changes in m⁶A RNA methylation control the expression of key genes in cancer development and growth²

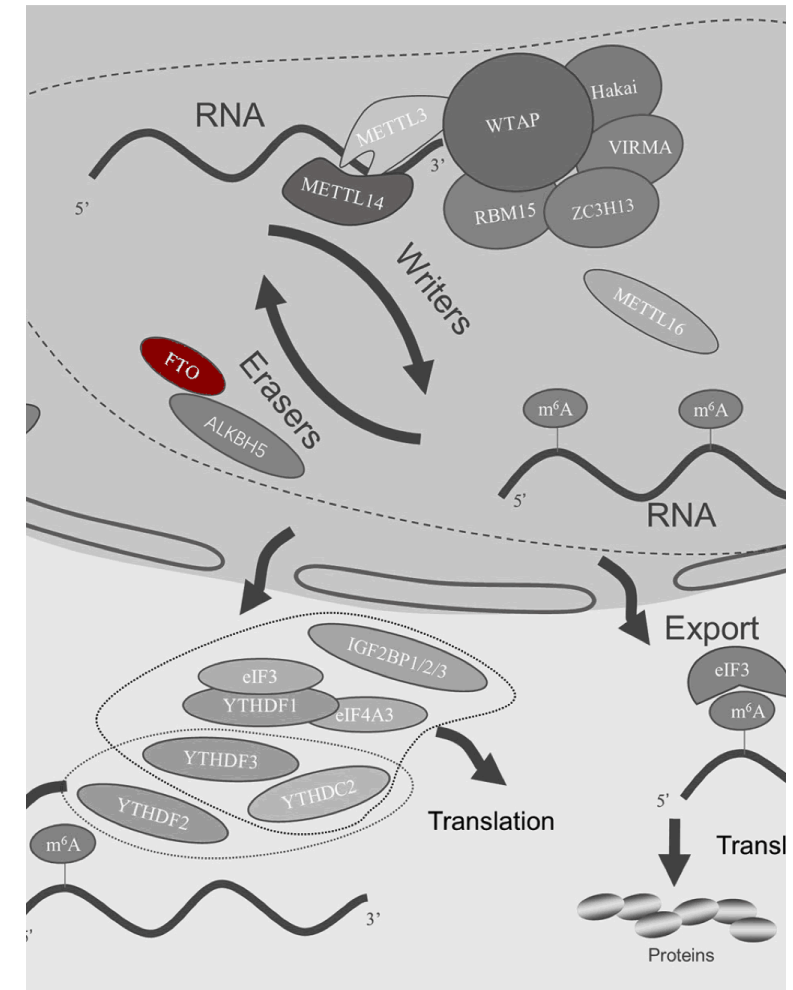
Fatso/ Fat mass- and obesity-associated Protein (FTO) is an m⁶A RNA demethylase that is involved in the control of m⁶A levels in mRNA¹

Increases in the expression or activity of FTO are associated with cancer development and metastasis

Reductions in FTO expression or activity kills or slows the growth of a wide range of cancers including leukaemia, breast, lung, ovarian, gastric, brain, melanoma & pancreatic

Bisantrene has been independently reported to be a potent FTO inhibitor³

Despite rapid scientific progress, the clinical importance of m⁶A RNA and FTO as a cancer target is unknown due a lack of m⁶A targeted therapies



1. Deng, X., Su, R., Stanford, S., & Chen, J. (2018). Critical Enzymatic Functions of FTO in Obesity and Cancer. *Frontiers in Endocrinology*, 9, 724–7

2. Huang, H., Weng, H., & Chen, J. (2020). m⁶A Modification in Coding and Non-coding RNAs: Roles and Therapeutic Implications in Cancer. *Cancer Cell*, 37(3), 270–28

3. Su, R. et al. Targeting FTO Suppresses Cancer Stem Cell Maintenance and Immune Evasion. (2020) *Cancer Cell* 38, 79-96.e11.

AML Opportunity

Bisantrene approved for AML in France in 1988, although it was never marketed

Sheba 1 (2020) – 40% response rate in 10 AML salvage patients using bisantrene as a single agent – 4/4 clinical response in EMD AML¹

Sheba 2 (2023) – 40% response rate in 15 heavily pre-treated AML salvage patients with combination treatment (bis/flu/clo)²

New data has sparked increased clinician interest in bisantrene

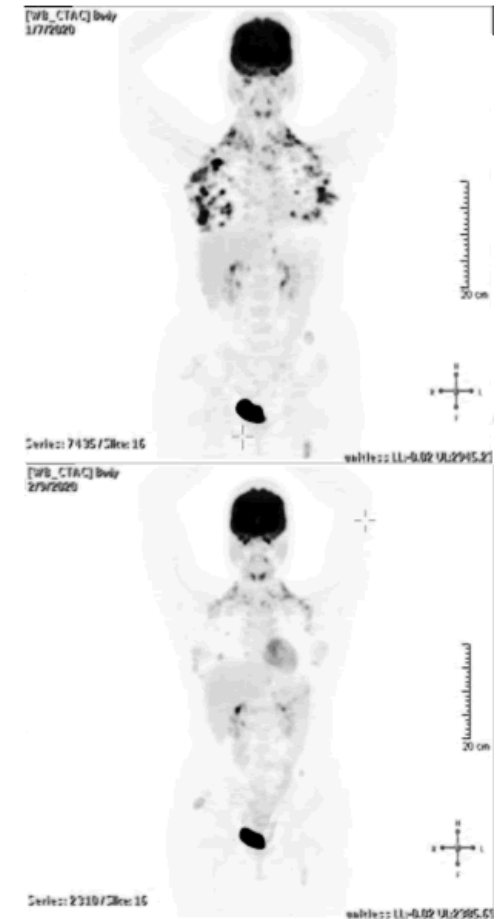
Commercial Challenges in AML

Very crowded clinical market – must have a compelling niche to be viable

Intense competition for patients – more than 800 clinical trials open globally, 60 in Australia

Venetoclax is changing the standard-of-care for AML patients

High intensity chemotherapy protocols are being replaced with low intensity protocols based around venetoclax - new high intensity treatments have limited commercial interest



1. ASX Announcement: 16 June 2020
2. ASX Announcement 6 November 2023

FDA Fast Track & Breakthrough Designation

FDA Fast Track Designation (see Appendix)

More frequent communication with FDA

Eligibility for **Accelerated Approval** and **Priority Review**

Rolling Review of NDA

FDA Breakthrough Designation (see Appendix)

All Fast Track designation features

Intensive guidance on an efficient drug development program, beginning as early as Phase 1

Organisational commitment involving senior FDA managers

Example – Cosela®

An IV CDK 4/6 inhibitor designed to reduce the incidence of chemotherapy-induced myelosuppression in adult patients with extensive-stage small-cell lung cancer receiving chemotherapy¹

2016 – Phase 1 safety study²

2017 – 2019 – 3x Phase 1b/2 trials²

2019 – Granted FDA Breakthrough Designation¹

2020 – NDA submitted, received FDA Priority Review¹

Feb 2021 – Granted FDA Accelerated Approval based on evidence from three (3) Phase 2 clinical trials with a total of 245 patients (only 123 treated with Cosela®) with newly diagnosed extensive-stage small-cell lung cancer receiving chemotherapy for the first time¹

1. <https://www.fda.gov/news-events/press-announcements/fda-approves-drug-reduce-bone-marrow-suppression-caused-chemotherapy>

2. Daniel, D. et al. Trifluciclib prior to chemotherapy and atezolizumab in patients with newly diagnosed extensive-stage small cell lung cancer: A multicentre, randomised, double-blind, placebo-controlled Phase II trial. Int J Cancer 148, 2557–2570 (2021).

Challenges

Issues facing Race Oncology

Challenges



Biotech sector in a funding/valuation “nuclear winter” with some biotech veterans calling it the worst biotech market they have ever experienced



Many recent pharma deals have been slow to close and have been done at near liquidation prices



AML is an extremely crowded clinical market where the standard of care is changing rapidly



m⁶A RNA is an unproven opportunity

Solutions

Efficient project management to ensure spending is within available resources

Build a robust, high-quality, clinical efficacy data package that will attract partnership and transaction interest from a broad range of pharma companies - *negotiate from a position of strength*

Use investigator-initiated trial(s) to cost-effectively generate Phase 2 efficacy data in AML that will support pharma commercial interest and patient recruitment in a modern treatment environment


Generate m⁶A RNA proof-of-concept clinical data via exploratory endpoints in other clinical trials

Updated Strategy

Addressing the challenges

Strategy Overview

 **Position bisantrene as a cardioprotective supportive care drug in early clinical trials with prudent, value-building investment**

 Aim to generate robust, high-quality clinical efficacy data for the cardioprotection, m⁶A RNA & AML opportunities that will support a high-value pharma transaction and Breakthrough & Fast Track Designation discussions with the FDA*

- Shareholder return on investment has historically been maximised for small/medium biotech via pharma deals from Phase 2 clinical data demonstrating efficacy
- Breakthrough & Fast Track Designation offer the possibility of FDA accelerated approval of bisantrene from Phase 2 data*

 Continued partnership engagement with large pharma

 Segment market by geographical region & formulation to maximise returns (where possible)

 FDA IND opened in 2024 to provide maximum strategic flexibility

*subject to clinical data and FDA support

Clinical Strategy

Generating clinical evidence of efficacy for
cardioprotection, m⁶A RNA & AML

RC220 Phase 1a/b Trial – Fully Funded¹

An ‘all comers’ Bayesian dose escalation Phase 1a trial of RC220 in any solid tumour patient where anthracycline use is indicated

Size: 25-50 patients; up to 10 sites in Australia and internationally

Sponsor: Race Oncology

Primary endpoints: Safety & optimal Phase 2 dose

Exploratory endpoints: Standard & advanced cardiac markers including VO₂Peak, m⁶A RNA levels, & anticancer efficacy

Start: First patient H2 CY2024 (subject to RC220 availability)

Timeline: 12-18 months due to Bayesian design uncertainty around total patient number (patient recruitment)

Cohort extension (Phase 1b) in patient sub-groups to optimise bisantrene dosage in different drug combination settings

Expands market potential of bisantrene beyond breast cancer to all cancers where anthracyclines are used

Effect of bisantrene on the m⁶A RNA system will be collected by using a lead-in dose of bisantrene given 7 days prior to the first anthracycline combination dose – provides ‘clean’ PK/PD, m⁶A RNA & single-agent anticancer efficacy data

Cost: A\$11 million (based on 50 patients)

1. Fully funded from existing cash and anticipated R&D Tax Rebate.

RC220 Phase 1a/b Trial Outcomes

Leverages an Australian-focused Phase 1a/1b trial design to ensure trial can be fully funded from existing cash resources

Phase 1a establishes optimal bisantrene anthracycline dosing and safety

Phase 1b generates proof-of-concept cardioprotection efficacy data in combination with anthracyclines

Trial will provide data on RC220 safety and cardioprotection proof-of-concept

Exploratory data generated on single-agent anticancer efficacy and the effects on the m⁶A RNA system

Builds robust data set to support Phase 2 efficacy trial

Cardioprotection & m⁶A RNA Phase 2 Trial¹

A placebo-controlled, double-blinded, umbrella Bayesian combination trial of RC220. Focus on breast cancer plus any cancer or patient population that shows exceptional response to treatment in Phase 1

Size: 80-120 patients; up to 20 sites in Australia and internationally

Sponsor: Race Oncology

Primary endpoints: Cardioprotection assessed by standard & advanced cardiac markers including VO₂Peak

Secondary & exploratory endpoints: Anticancer efficacy & effect on m⁶A RNA levels

Start: After completion of Phase 1

Timeline: 18-24 months due to Bayesian design uncertainty around total patient number (patient recruitment)

Generates gold-standard, double-blinded efficacy data of bisantrene as a cardioprotective agent and provides supportive data on anticancer efficacy & effect on m⁶A RNA system

Trial uses same single-agent bisantrene 7-day lead-in dosing to generate robust clinical data on the effects of bisantrene on the m⁶A RNA system and single-agent anticancer activity

Cost: A\$32 million (based on 120 patients)

1. Fully funded assuming 75% or greater conversion of Piggyback Options in 2026

AML Phase 1/2 Investigator Initiated Trial¹

A low intensity salvage treatment for patients unable or unwilling to tolerate high intensity chemotherapy who have failed standard of care AML treatments.

Size: 40-60 patients; up to 10 sites in Australia

Sponsor: Investigator

Primary endpoints: Safety & tolerability of bisantrene; Overall Response Rate

Exploratory endpoints: Event-free Survival; Overall Survival; Time to remission; Frailty scores; Time on treatment; Molecular response; Cardiac markers; Quality of Life

Start: Late H2 2024/early H1 2025

Timeline: 18-24 months recruitment + 2 year follow up; interim results in 24 months

Trial to use low dose bisantrene (RC220) in combination with oral decitabine (ASTX727) (Astex)

Trial will provide clinical efficacy data supporting the use of bisantrene in low intensity AML combination protocols that are compatible with standard of care use of venetoclax

Cost: A\$4 million (based on 60 patients)²

1. Proposal as received from the Investigator in November 2023. May be subject to modification.
2. Fully funded from 75% or greater bonus option conversion in June 2024

Preclinical Activities



Continue studies to determine the cardioprotection mechanism of action



Develop the next generation bisantrene with a focus on the m⁶A RNA opportunity



Continue building the preclinical data package needed to support pharma transaction/partnering activities



Generate data to enable an FDA IND application

Advantages of Expanded Program



Generates robust Phase 2 clinical efficacy data for the cardioprotection, m⁶A RNA & AML opportunities.



Provides supportive cardioprotection data from Phase 1 in a variety of cancer types and treatment protocols maximising the commercial potential of bisantrene



Generates gold-standard, placebo-controlled, double-blinded efficacy data at Phase 2 that will support conversations with the FDA around Breakthrough & Fast Track Designation (subject to data and FDA feedback)



Uses an investigator-initiated AML trial design to allow recruitment of patients in Australia and generate Phase 2 efficacy data while minimising expense.



Builds a **highly valuable** clinical data package across **three clinical opportunities** that offers the potential of maximised shareholder return on equity via pharma partnering and transactions discussions from a position of strength



Clear plan which builds on clinical and preclinical history and demonstrates prudent use of resources and funding.

Expanded Clinical Program

Solid Tumour
Phase 1a/b Trial

Solid Tumour
Phase 2 Trial

AML Phase 1/2
Trial

Preclinical
studies & IND
submission

Allows the generation of Phase 2 efficacy data for the AML, solid tumour cardioprotection + anticancer & m⁶A RNA commercial opportunities aimed at maximising shareholder return on equity and provide Race with a position of strength to negotiate pharma transactions

1. As of 30 September 2023

2. Assuming an average of 40% refund on eligible R&D expenses

Bonus Option Offer

Bonus Option Offer

Race is issuing Bonus Options to reward existing shareholders and provide shareholders the opportunity to support the next steps of our highly promising clinical program

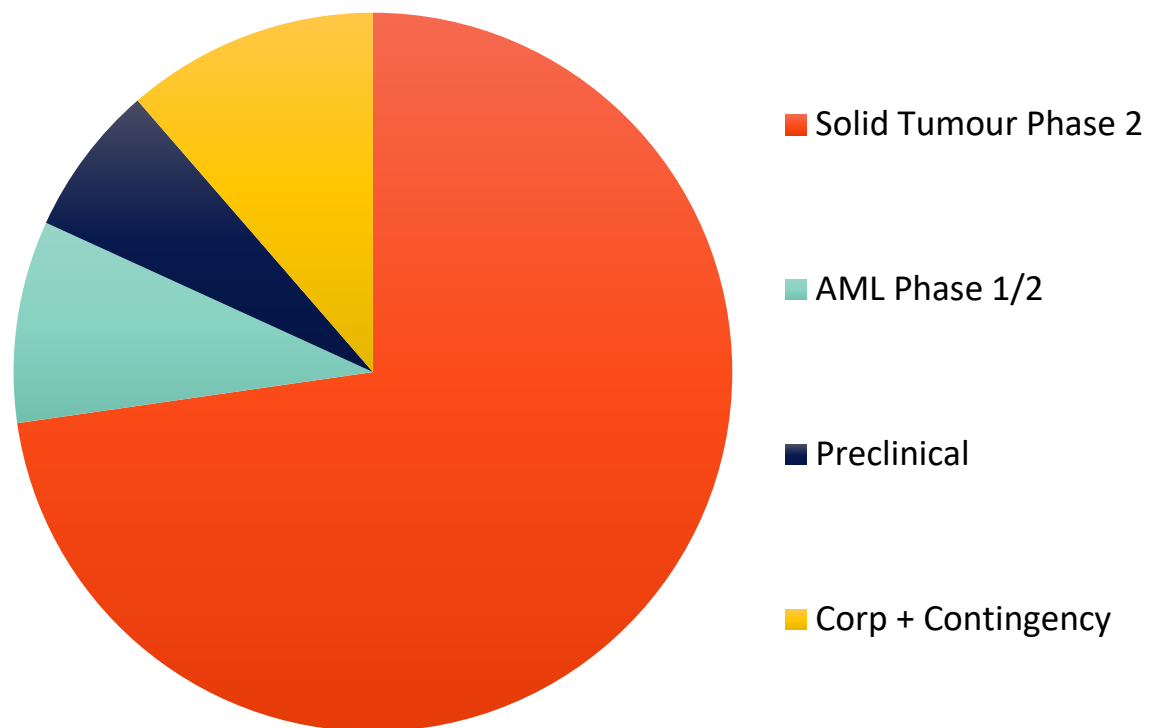
The Bonus Options will be issued for nil consideration to Eligible Shareholders at (1) free Bonus Option for every twenty (20) shares held at 7:00 pm (AEDT) on the Record Date (30 November 2023)

Bonus Options have an exercise price of \$0.75 each, expiring on 4 June 2024 and, if exercised, will result in the issue of (3) three second options (Piggyback Options) for each Bonus Option exercised. Each Piggyback Option will have an exercise price of \$1.25 each, expiring on 29 May 2026

New shares issued will rank *pari passu* with existing shares from their date of issue. Bonus Options to raise up to A\$6.1m in 2024 and Piggyback Options up to A\$30.5m in 2026 (subject to shareholder exercise)

Full details of Bonus Options to be released to the ASX later today (22 November 2023) via a Bonus Option Prospectus

Prospectus Use of Funds



Proposed Expenditure	
Solid Tumour (Phase 2)	\$32 million
AML (Phase 1/2)	\$4 million
Preclinical + IND	\$3 million
Corp. costs + Contingency	\$5 million
R&D Tax Rebate ¹	(\$11.6m)
Total	\$32.4 million

1. Assuming an average of 40% refund on eligible R&D expenses

Bonus Option Timetable

Date	Item
Announce Bonus Option Plan Lodge Appendix 3B and issue Cleansing Notice	Wednesday, 22 November 2023
Ex Date of the Bonus Options Offer	Monday, 29 November 2023
Record Date for Bonus Options Offer	7:00 pm AEDT Wednesday, 30 November 2023
Issue date and lodgement of Appendix 3G with ASX for the Bonus Options issued under the Bonus Options Offer	5:00 pm AEDT Monday 4 December 2023
Opening Date of the Piggyback Options Offer	Monday, 4 December 2023
Bonus Options Expiry Date	5:00 pm AEDT Tuesday, 4 June 2024
Closing Date of the Piggyback Options Offer	5:00 pm AEDT Tuesday, 4 June 2024
Issue date and lodgement of Appendix 3G with ASX for the Piggyback Options issued under the Piggyback Options Offer	Within 5 business days after the receipt of a duly completed form of notice of exercise, on the terms set out in Section 4.1(g).

* Race retains the discretion to alter any or all of these dates

Conclusion

Race Oncology

Summary



Phase 1a/1b Australian trial fully funded from existing cash



A clear and fully funded plan (subject to shareholder support) to generate Phase 2 efficacy data for the AML, solid tumour cardioprotection + anticancer & m⁶A RNA commercial opportunities aimed at maximising shareholder return on equity via a pharma transaction/sale



Opportunity for rapid, lower-cost approval from Phase 2 efficacy data via FDA Accelerated Approval (subject to clinical data and discussion with regulators)



Right team with incentives fully aligned with shareholders

Questions



Race Oncology

Contact

DANIEL TILLET

Chief Executive Officer

 +61 2 8051 3043

 daniel.tillett@raceoncology.com

JANE LOWE

Investor & Media Relations

 +61 411 117 774

 jane.lowe@irdepartment.com.au

Appendix

Race Oncology Board and Financials



Mary Harney

Non-Executive Board Chair

- >20 years as Chair/ Director/ CEO for leading healthcare organizations
- Chair of Race, Oncology One and MicroBio
- Formerly CEO of \$2b Breakthrough Victoria Fund



Dr Peter Smith

Executive Director

- >30 years' experience in healthcare with focus on therapeutics / oncology
- CEO of oncology-focused Myrio and Hula Therapeutics
- Former top-rated pharma analyst with UBS and HSBC



Philip Lynch

Non-Executive Director

- >30 years' experience as commercial Director / leader
- Current Chair of Consumer Healthcare Products Australia
- Prior Race CEO (2020-2023)
- Formerly VP, Commercial Growth with J&J in Asia Pacific markets



ISSUED CAPITAL

Shares ¹	163.1m
Options ¹	10.7m
Shareholders ²	8,486

MARKET CAPITALISATION

Share price ¹	\$0.955
Market value ¹	\$155.8m
Cash ²	\$17.8m
Enterprise value	\$138.0m

SIGNIFICANT SHAREHOLDERS

Dr Daniel Tillett (CEO)	10.0%
Dr John Cullity	4.9%
Merchant Funds	2.7%

1. As of 21 November 2023
2. As of 30 September 2023

Race Oncology Management Team



Dr Daniel Tillett, PhD
Chief Executive Officer

- Former CSO and Executive Director of Race Oncology (2019-2023)
- Responsible for development of RC220 & cardioprotection discoveries
- >25 years of biotech management experience (Nucleics)
- Largest Race Oncology shareholder (>10%)



Dr Michelle Rashford, MBBS
Chief Medical Officer

- Former physician, with >25 years expertise in the successful development and commercialization of pharmaceuticals across oncology, virology, and immunology
- Former Head of Global Clinical Sciences with Kyowa Kirin, 5 years BMS and 20 years with Roche



Dr Sophia Moscovis, PhD
Program Management,
Risk & Strategy Director

- >20 years experience in healthcare with 10+ years in the pharmaceutical industry
- Scientist with a PhD in Immunogenetics
- >10 years with Novartis across a range of areas including cardiology and business transformation



Prof Michael Kelso, PhD
Principal Scientist

- Internationally experienced researcher, with >25 years R&D experience across a wide range of areas in medicinal chemistry, incl. oncology, antimicrobial drug development and drug formulation
- 69 scientific research papers, 7 patents and 18 grants achieved



Dr Marinella Messina, PhD
Clinical Director

- Highly experienced oncology clinical trials specialist, having managed a wide range of clinical trials over >10 years, across all development phases (I, II, III and IV)
- Former Noxopharm Clinical Operations Manager and Clinical Program Manager



FDA Fast Track Designation¹

Fast track is a process designed to facilitate the development and expedite the review of drugs to treat serious conditions and fill an unmet medical need. The purpose is to get important new drugs to the patient earlier. Fast Track addresses a broad range of serious conditions.

Determining whether a condition is serious is a matter of judgment, but generally is based on whether the drug will have an impact on such factors as survival, day-to-day functioning, or the likelihood that the condition, if left untreated, will progress from a less severe condition to a more serious one. AIDS, Alzheimer's, heart failure and cancer are obvious examples of serious conditions. However, diseases such as epilepsy, depression and diabetes are also considered to be serious conditions.

Filling an unmet medical need is defined as providing a therapy where none exists or providing a therapy which may be potentially better than available therapy.

Any drug being developed to treat or prevent a condition with no current therapy obviously is directed at an unmet need. If there are available therapies, a fast track drug must show some advantage over available therapy, such as:

- Showing superior effectiveness, effect on serious outcomes or improved effect on serious outcomes
- Avoiding serious side effects of an available therapy
- Improving the diagnosis of a serious condition where early diagnosis results in an improved outcome
- Decreasing a clinical significant toxicity of an available therapy that is common and causes discontinuation of treatment**
- Ability to address emerging or anticipated public health need

A drug that receives Fast Track designation is eligible for some or all of the following:

- More frequent written communication from FDA about such things as the design of the proposed clinical trials and use of biomarkers
- Eligibility for Accelerated Approval and Priority Review, if relevant criteria are met
- Rolling Review, which means that a drug company can submit completed sections of its Biologic License Application (BLA) or New Drug Application (NDA) for review by FDA, rather than waiting until every section of the NDA is completed before the entire application can be reviewed. BLA or NDA review usually does not begin until the drug company has submitted the entire application to the FDA

1. <https://www.fda.gov/patients/fast-track-breakthrough-therapy-accelerated-approval-priority-review/fast-track>

FDA Breakthrough Therapy Designation¹

Breakthrough Therapy designation is a process designed to expedite the development and review of drugs that are intended to treat a serious condition and preliminary clinical evidence indicates that the drug may demonstrate substantial improvement over available therapy on a clinically significant endpoint(s).

To determine whether the improvement over available therapy is substantial is a matter of judgment and depends on both the magnitude of the treatment effect, which could include duration of the effect, and the importance of the observed clinical outcome. In general, the preliminary clinical evidence should show a clear advantage over available therapy.

For purposes of Breakthrough Therapy designation, clinically significant endpoint generally refers to an endpoint that measures an effect on irreversible morbidity or mortality (IMM) or on symptoms that represent serious consequences of the disease. A clinically significant endpoint can also refer to findings that suggest an effect on IMM or serious symptoms, including:

An effect on an established surrogate endpoint

An effect on a surrogate endpoint or intermediate clinical endpoint considered reasonably likely to predict a clinical benefit (i.e., the accelerated approval standard)

An effect on a pharmacodynamic biomarker(s) that does not meet criteria for an acceptable surrogate endpoint, but strongly suggests the potential for a clinically meaningful effect on the underlying disease

A significantly improved safety profile compared to available therapy (e.g., less dose-limiting toxicity for an oncology agent), with evidence of similar efficacy

A drug that receives Breakthrough Therapy designation is eligible for the following:

All Fast Track designation features

Intensive guidance on an efficient drug development program, beginning as early as Phase 1

Organizational commitment involving senior managers

1. <https://www.fda.gov/patients/fast-track-breakthrough-therapy-accelerated-approval-priority-review/breakthrough-therapy>

VO₂Peak Measures of Cardiac Damage

Left ventricular ejection fraction (LVEF) and global longitudinal strain (GLS) have been the standard of care measures for evaluating chemotherapy-associated cardiotoxicity

VO₂Peak can be simply assessed in minutes using a continuous ramp protocol on an upright cycle ergometer while measuring the volume of oxygen consumption and expired carbon dioxide¹

A VO₂Peak below 18mL/kg/min has been termed 'functional disability' because a level below this prevents patients performing basic daily living activities and is associated with a seven- to nine-fold increased risk of heart failure²

The American Heart Association has endorsed the measurement of VO₂Peak defined functional disability as an important clinical endpoint for older adults with or at risk for cardiovascular disease (CVD)³

Recent research from the Baker Institute in 206 cancer patients¹ has found that changes in LVEF or GLS are not strongly correlated with short-term symptoms, functional capacity, or long-term heart failure (HF) risk

Anthracycline exposure was found to reduce average VO₂Peak in patients by 8-11% (equivalent of 8 to 11 years of normal ageing) with the rates of functional disability near doubled (15% vs. 26%). In contrast, only small reductions in LVEF (59% vs. 58%) and GLS (-19.4 vs. -18.9) were observed in the same treated cohort

Importantly, 43% of the anthracycline exposure patients experienced a 10% or greater reduction in VO₂Peak which enables the detection of significant changes in small trials (~30 patients)

1. Howden, E. J. et al. Traditional markers of cardiac toxicity fail to detect marked reductions in cardiorespiratory fitness among cancer patients undergoing anti-cancer treatment. *Eur. Hear. J. - Cardiovasc. Imaging* 22, 451–458 (2021).

2. Forman, D. E. et al. Prioritizing functional capacity as a principal end point for therapies oriented to older adults with cardiovascular disease: a scientific statement for healthcare professionals From the American Heart Association. *Circulation* 135:e894–918 (2017).

3. Khan, H. et al. Cardiorespiratory fitness and risk of heart failure: a population-based follow-up study. *Eur J Heart Fail* 16:180–8 (2014).