

ASX RELEASE

10 January 2018

KAZIA PRESENTATION TO BIOTECH SHOWCASE

Sydney, 10 January 2018 – Australian oncology-focused biotechnology company Kazia Therapeutics Limited (ASX: KZA; NASDAQ: KZIA) is pleased to release the presentation that CEO, Dr James Garner gave to Biotech Showcase in San Francisco on 9 January 2018.

[ENDS]

About Kazia Therapeutics Limited

Kazia Therapeutics Limited (ASX: KZA, NASDAQ: KZIA) is an innovative oncology-focused biotechnology company, based in Sydney, Australia. Our pipeline includes two clinical-stage drug development candidates and a preclinical discovery program, and we are working to develop therapies across a range of oncology indications.

Our lead program is GDC-0084, a small molecule inhibitor of the PI3K / AKT / mTOR pathway, which is being developed to treat glioblastoma multiforme, the most common and most aggressive form of primary brain cancer. Licensed from Genentech in late 2016, GDC-0084 entered a phase II clinical trial December 2017. Initial data is expected in late calendar 2018, and the study is expected to complete in 2021.

TRX-E-002-1 (Cantrixil), is a third-generation benzopyran molecule with activity against cancer stem cells, and is being developed to treat ovarian cancer. TRX-E-002-1 is currently undergoing a phase I clinical trial in Australia and the United States. Initial data is expected in the first half of calendar 2018.

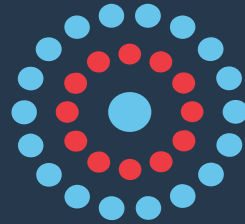
Board of Directors

Mr Iain Ross Chairman, Non-Executive Director

Mr Bryce Carmine Non-Executive Director

Mr Steven Coffey Non-Executive Director

Dr James Garner Chief Executive Officer, Managing Director



KAZIA
THERAPEUTICS



An emerging oncology
developer with two
clinical-stage programs

Presentation to Biotech Showcase
#BTS18

San Francisco, CA
9 January 2018

Forward-Looking Statements

This presentation contains “forward-looking statements” within the meaning of the “safe-harbor” provisions of the Private Securities Litigation Reform Act of 1995. Such statements involve known and unknown risks, uncertainties and other factors that could cause the actual results of the Company to differ materially from the results expressed or implied by such statements, including changes from anticipated levels of customer acceptance of existing and new products and services and other factors. Accordingly, although the Company believes that the expectations reflected in such forward-looking statements are reasonable, there can be no assurance that such expectations will prove to be correct. The Company has no obligation to sales, future international, national or regional economic and competitive conditions, changes in relationships with customers, access to capital, difficulties in developing and marketing new products and services, marketing existing products and services update the forward-looking information contained in this presentation.

Investment Highlights

1

Oncology-focused biotech with two cancer therapies in clinical trials

- GDC-0084 entering phase II in glioblastoma multiforme
- Cantrixil in phase I in ovarian cancer

2

Well-differentiated assets, with lead program licensed from Genentech

- GDC-0084: brain-penetrant dual PI3K / mTOR inhibitor
- Cantrixil active against ovarian cancer tumor-initiating cells

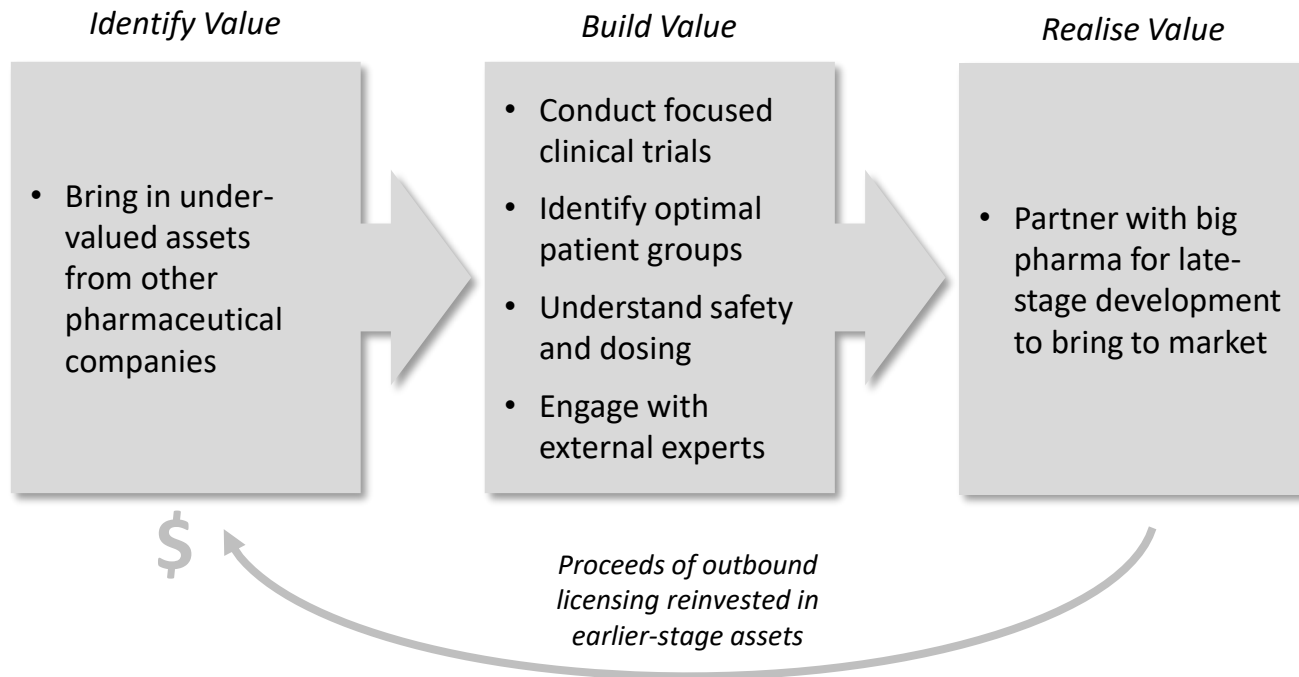
3

Publicly-listed company, traded on ASX and NASDAQ

4

Experienced team, with extensive international background in big pharma and biotech

Kazia is focused on development of high-potential novel therapies for poorly-served cancers



Reduce cycle time and accelerate returns: 2-4 years to get to value inflection

Improve portfolio strength: access the best global innovation

Mitigate risk: bring in assets which already partially de-risked

A strong team brings international experience in big pharma and early-stage biotech

Board



Iain Ross
Chairman

Executive and Board roles in pharma and small biotech



Bryce Carmine
Deputy Chairman

36 years executive experience in Eli Lilly



Steven Coffey
Non-Executive Director

Chartered accountant with extensive governance experience



Dr James Garner
Chief Executive Officer
& Executive Director

Physician / MBA; Extensive drug development experience



Scientific Advisory Board



Professor Sir Murray Brennan
Emeritus Chairman of Cancer Surgery at Memorial Sloan Kettering Hospital, New York



Dr Karen Ferrante
Former Chief Medical Officer at Millennium Pharmaceuticals



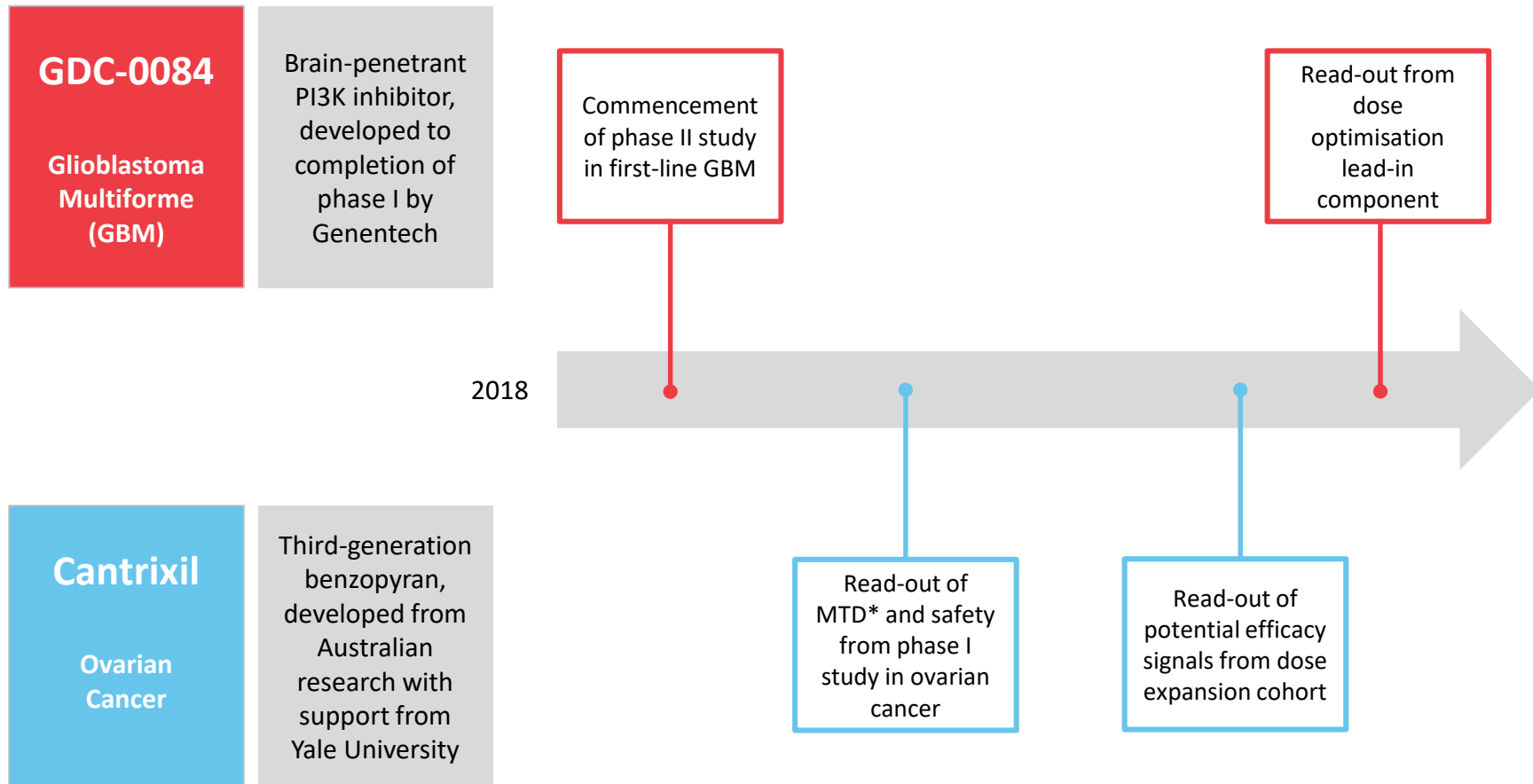
Professor Peter Gunning
Head of School of Medical Sciences at University of New South Wales



Professor Alex Matter
Former Global Head of Oncology Research at Novartis

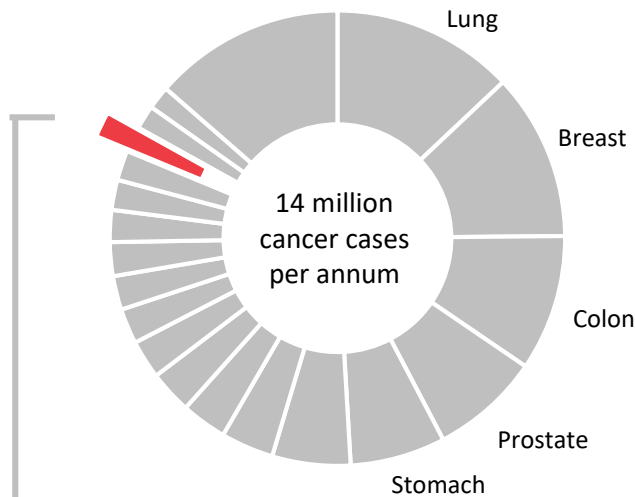


Two clinical programs, with value-driving inflection points providing impactful newsflow during 2018



*MTD = Maximum Tolerated Dose

Glioblastoma (GBM) is the most common and most aggressive form of primary brain cancer



Glioblastoma Multiforme

133,000 cases per annum worldwide

Indicative Market Opportunity

US\$ 1 billion

No clear cause
or strong risk factors

3-4 months
untreated survival

12-15 months
average survival with treatment

Any age, but most common in
60s

Five-year survival
3 – 5%
(breast cancer: 90%)

Most common drug treatment is temozolomide (Temodar®), used after surgery and radiotherapy

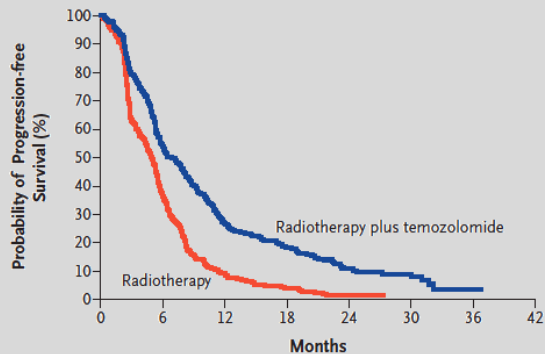
Ineffective in approximately two-thirds of patients

Current standard of care is essentially ineffective in up to 65% of GBM cases

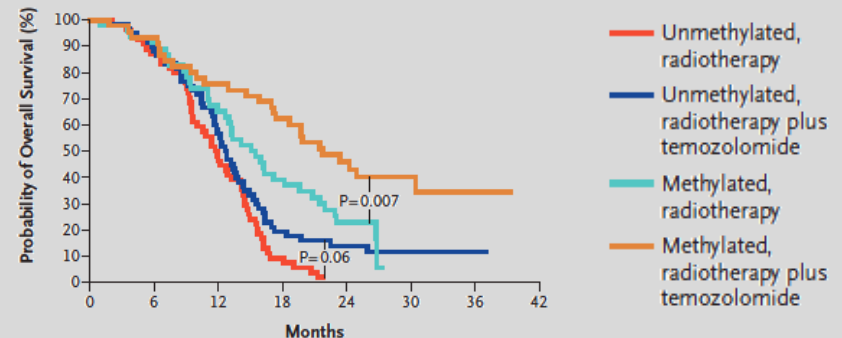
Standard of Care ('Stupp Regimen')



Temozolomide is clearly efficacious...



...but only in ~35% of patients with a methylated MGMT promotor



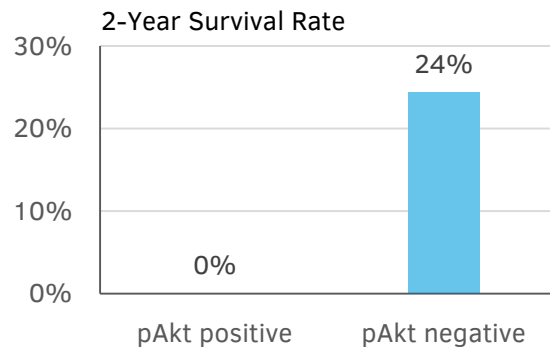
Source: ME Hegi, A-C Diserens, T Gorlia, et al. (2005). *N Engl J Med* 352:997-1003

The PI3K pathway is highly relevant to GBM, and GDC-0084 is well-differentiated within the class

PI3K Activation in GBM

PI3K pathway upregulated in **~90% of GBM cases** per Cancer Genome Atlas¹

PI3K dysregulation is associated with a worse prognosis²



PI3K Inhibitor Class is Diverse

Differentiation

GDC-0084 is a pan-PI3K inhibitor, active against all four isoforms (α β γ δ)

GDC-0084 is a dual PI3K / mTOR inhibitor

GDC-0084 penetrates the blood-brain barrier (1:1 brain / plasma ratio)

Rich preclinical data set supporting clinical development in GBM

Comparators

Idelalisib (Gilead) – δ
IPI-549 (Infinity) – γ
Umbalisib (TG) – δ

Taselisib (Genentech) – PI3K only

Buparsilib (Novartis) – also brain-penetrant but mood disturbances

Buparsilib (Novartis) – lead indication is breast cancer

Relevance

α & β isoforms likely more relevant to solid tumors

Dual mechanism reduces bypass signalling

Brain / plasma ratio \geq 1 necessary, given diffuse nature of GBM

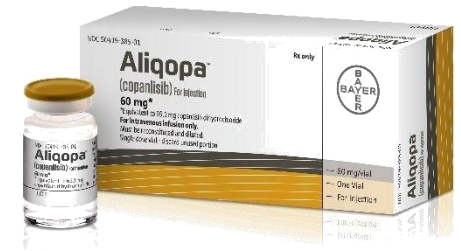
GDC-0084 developed from ground up as a GBM drug

¹CW Brennan et al, *Cell* (2013), 155(2):462-477; ²Y Suzuki, et al. *J Radiat Res* (2010), 51(3):343

The PI3K class has been further validated by approval of a second NCE in September 2017

PI3K class further validated by approval of Bayer's Aliqopa™ (copanlisib) for lymphoma in Sept 2017

- Two PI3K inhibitors now successfully brought to market
 - Zydelig (idelalisib) [Gilead]
 - Aliqopa (copanlisib) [Bayer]
- Neither drug is brain-penetrant, so are unlikely to rival GDC-0084
- Demonstrates that PI3K is a validated pathway to target for effective treatment of cancer
- Both agents approved by FDA via 'accelerated approval'



Previous GBM failures are well understood, and can inform development of new therapies

Pharmacokinetic Failure

- Many small-molecule kinase inhibitors are not well brain-penetrant, and so reach insufficient concentration at the tumour

Tumour Genetics & Heterogeneity

- Many driver mutations for GBM, but few constitutive (e.g. EGFR disordered in ~40% of cases)
- Profound heterogeneity in the tumour, and rapid evolution

Compensatory Mechanisms

- Inhibition of some downstream targets may lead to upregulation elsewhere (e.g. pure mTOR inhibitors have been associated with *worse* clinical outcomes)

Immunological Environment

- Brain is 'immunologically privileged', with profoundly different set of immunological responses, so immuno-oncology therapies and cancer vaccines are likely to face hurdles

Clinical Trial Design

- Positioning in advanced treatment failures entails an extremely 'hard-to-treat' group with limited life expectancy, creating very high bar for new therapies
- Combination therapy tends to be limited by significant toxicity, and some monotherapies can be impeded by higher levels of toxicity in this population

Genentech's phase I of GDC-0084 established dosing and showed favourable safety

Safety

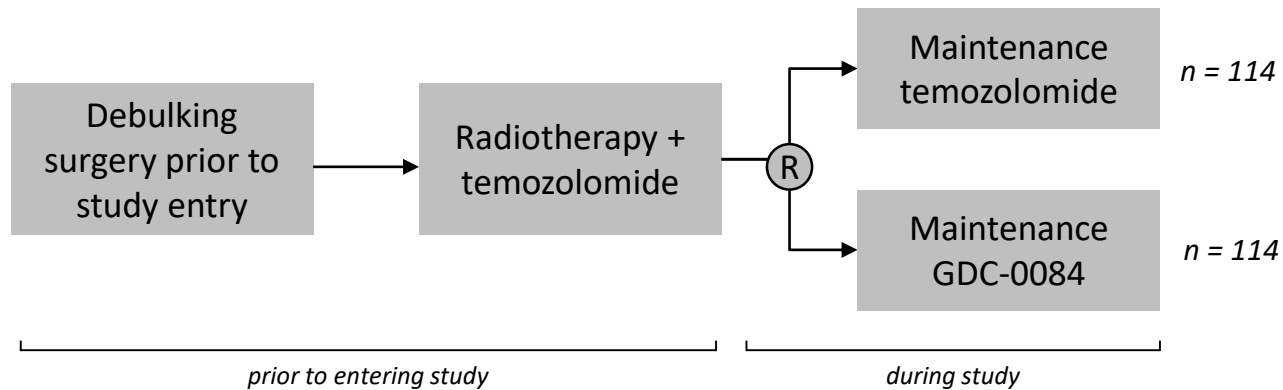
- Phase I safety trial conducted by Genentech
- 47 patients enrolled with advanced glioma (grade 3/4); average of three prior lines of therapy
- Most common adverse events were oral mucositis and hyperglycemia (common effects of PI3K inhibitors)
- No evidence of liver, bone marrow, kidney toxicity, or mood disturbances
- Data presented at American Society for Clinical Oncology annual meeting in Chicago, June 2016

Efficacy Signals

GDC-0084	
Arresting Tumour Growth	40% Achieved 'stable disease'
Potentially Delaying Progression	21% Remained on study for >3 months
Slowing Tumour Metabolism	26% Showed 'metabolic partial response' on FDG-PET



GDC-0084 phase II study design in first-line setting is supported by clinician and regulatory feedback



Regulatory Strategy

- Designed to provide robust evidence of clinical efficacy, using an endpoint, progression-free survival (PFS), that could potentially be approvable
- Goal is to seek accelerated approval prior to completion of a definitive phase III study. Avastin (bevacizumab) was approved for recurrent GBM in this way
- In the interim, Kazia aims to seek special designations (ODD, FTD, etc.) to provide enhanced opportunities for regulatory engagement

Approximately 60 sites in 5-6 countries

Will target patients who are resistant to temozolomide (approximately two-thirds of glioblastoma patients)

Duration:

18 months recruitment
12 months follow-up

Number of patients:

approx. **228**
(114 per arm)

Brain metastases from non-CNS tumors represent long-term market expansion potential

Overview	Example: Breast Mets	Next Steps
<ul style="list-style-type: none">• Estimated 100,000 - 200,000 cases/year in US• ~10-25% adult cancer patients develop symptomatic brain mets• Lung, breast and melanoma represent the majority of brain mets• Frequency of brain mets increasing with better systemic control and longer survival• Few (if any) drugs available to treat brain metastasis	<ul style="list-style-type: none">• ~30-44% of metastatic HER2-positive metastatic breast cancer patients have brain metastases• Brain metastases represent the cause of death in ~50% of HER2-positive breast cancer patients• ~40-50% of breast cancer brain metastases have disordered PI3K pathway• Therapies that are effective for the primary tumor (e.g. Herceptin) are often ineffective for brain metastases	<ul style="list-style-type: none">• Use GBM as a 'gateway indication', with the potential to explore registration post-phase II via accelerated approval / breakthrough designation, subject to clinical results• Meanwhile, conduct preclinical and clinical exploration of brain metastases in partnership with identified researchers to demonstrate preclinical proof-of-concept and augment economic value of the asset

Source: E Lim & N Lim (2012). *Oncology*. 26(7):652-9; PK Brastianos, SL Carter, S Santagata, et al. (2015). *Discovery* 5:1164



KAZIA
THERAPEUTICS

www.kaziatherapeutics.com