

ASX RELEASE 16 August 2021

KAZIA PROVIDES UPDATED NON-CONFIDENTIAL CORPORATE PRESENTATION

Sydney, 16 August 2021 – Kazia Therapeutics Limited (NASDAQ: KZIA; ASX: KZA), an oncology-focused drug development company, is pleased to provide an updated non-confidential corporate presentation. The presentation will be used for investor and partner meetings over the coming months.

About Kazia Therapeutics Limited

Kazia Therapeutics Limited (NASDAQ: KZIA; ASX: KZA) is an oncology-focused drug development company, based in Sydney, Australia.

Our lead program is paxalisib, a brain-penetrant inhibitor of the PI3K / Akt / mTOR pathway, which is being developed to treat glioblastoma, the most common and most aggressive form of primary brain cancer in adults. Licensed from Genentech in late 2016, paxalisib commenced recruitment to GBM AGILE, a pivotal study in glioblastoma, in January 2021. Eight additional studies are active in various forms of brain cancer. Paxalisib was granted Orphan Drug Designation for glioblastoma by the US FDA in February 2018, and Fast Track Designation for glioblastoma by the US FDA in August 2020. In addition, paxalisib was granted Rare Pediatric Disease Designation and Orphan Designation by the US FDA for DIPG in August 2020.

Kazia is also developing EVT801, a small-molecule inhibitor of VEGFR3, which was licensed from Evotec SE in April 2021. Preclinical data has shown EVT801 to be active against a broad range of tumour types and has provided compelling evidence of synergy with immuno-oncology agents. A phase I study is expected to begin in CY2021.

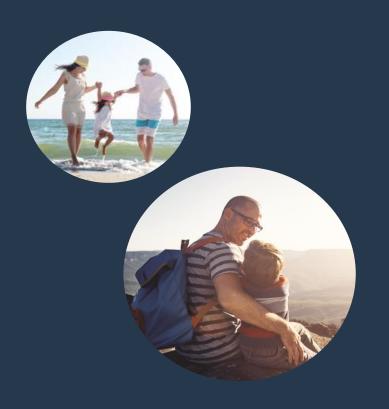
For more information, please visit <u>www.kaziatherapeutics.com</u> or follow us on Twitter @KaziaTx.

This document was authorized for release to the ASX by James Garner, Chief Executive Officer, Managing Director.

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





A Diversified, Clinical-Stage Oncology Drug Development Company

Corporate Introduction

August 2021

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 substantial risks and uncertainties, not all of which may be known at the time. All statements contained in this presentation, other than statements of historical fact, including statements regarding our strategy, research and development plans, collaborations, future operations, future financial position, future revenues, projected costs, prospects, plans, and objectives of management, are forward-looking statements. Not all forward-looking statements in this presentation are explicitly identified as such.

Many factors could cause the actual results of the Company to differ materially from the results expressed or implied herein, and you should not place undue reliance on the forward-looking statements. Factors which could change the Company's expected outcomes include, without limitation, our ability to: advance the development of our programs, and to do so within any timelines that may be indicated herein; the safety and efficacy of our drug development candidates; our ability to replicate experimental data; the ongoing validity of patents covering our drug development candidates, and our freedom to operate under third party intellectual property; our ability to obtain necessary regulatory approvals; our ability to enter into and maintain partnerships, collaborations, and other business relationships necessary to the progression of our drug development candidates; the timely availability of necessary capital to pursue our business objectives; and our ability to attract and retain qualified personnel; changes from anticipated levels of customer acceptance of existing and new products and services and other factors.

Although the Company believes that the expectations reflected in such forward-looking statements are reasonable, there can therefore be no assurance that such expectations will prove to be correct. The Company has no obligation as a result of this presentation to clinical trial outcomes, sales, partnerships, 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, or marketing existing products.

In addition, the extent to which the COVID-19 outbreak continues to impact our workforce and our discovery research, supply chain and clinical trial operations activities, and the operations of the third parties on which we rely, will depend on future developments, which are highly uncertain and cannot be predicted with confidence, including the duration and severity of the outbreak, additional or modified government actions, and the actions that may be required to contain the virus or treat its impact.

Any forward-looking statements contained in this presentation speak only as of the date this presentation is made, and we expressly disclaim any obligation to update any forward-looking statements, whether because of new information, future events or otherwise.



Company Overview

An oncology drug-development company



Lead Program in Phase III for Glioblastoma

Paxalisib

- Brain-penetrant PI3K / mTOR inhibitor, invented by Genentech
- International phase III underway in glioblastoma, a US\$ 1.5 billion annual market
- Eight further studies ongoing across various forms of brain cancer
- Commercial partnership in place with Simcere Pharmaceutical for Greater China region



Diversified Clinical-Stage Pipeline

EVT801

- First-in-class selective VEGFR3 inhibitor
- Targets lymphangiogenesis, and shows preclinical evidence of synergy with immuno-oncology therapies
- Initially under development for advanced solid tumours
- Phase I study due to commence in 2H CY2021



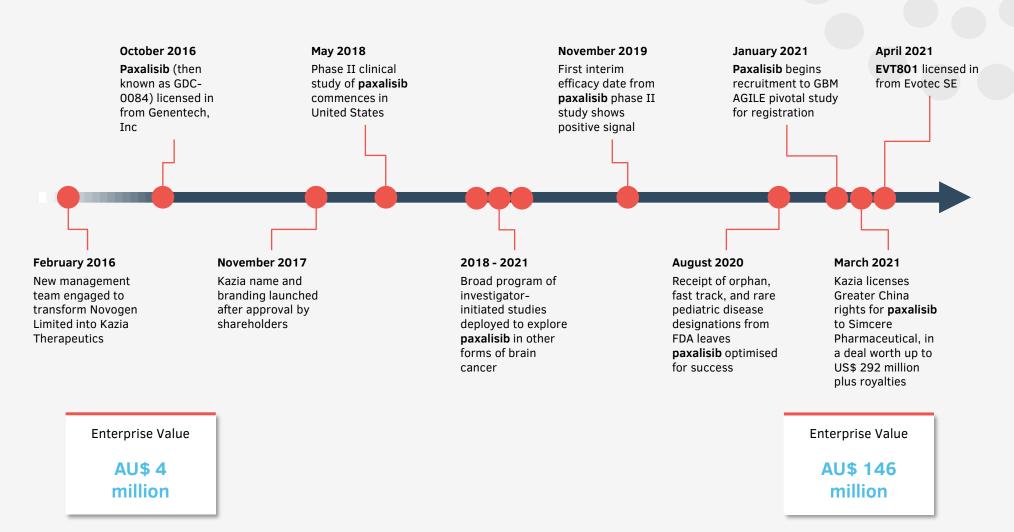
Strong Corporate Fundamentals

- Listed on ASX (KZA) and on NASDAQ (KZIA)
- ~US\$ 130 million market cap.
- Cash position @ 30 June 2021:
 ~US\$ 20 million
- Lean operating model, with ~75% of cashflow devoted directly to clinical trials
- Multiple fundamental-driven institutional investors on registry



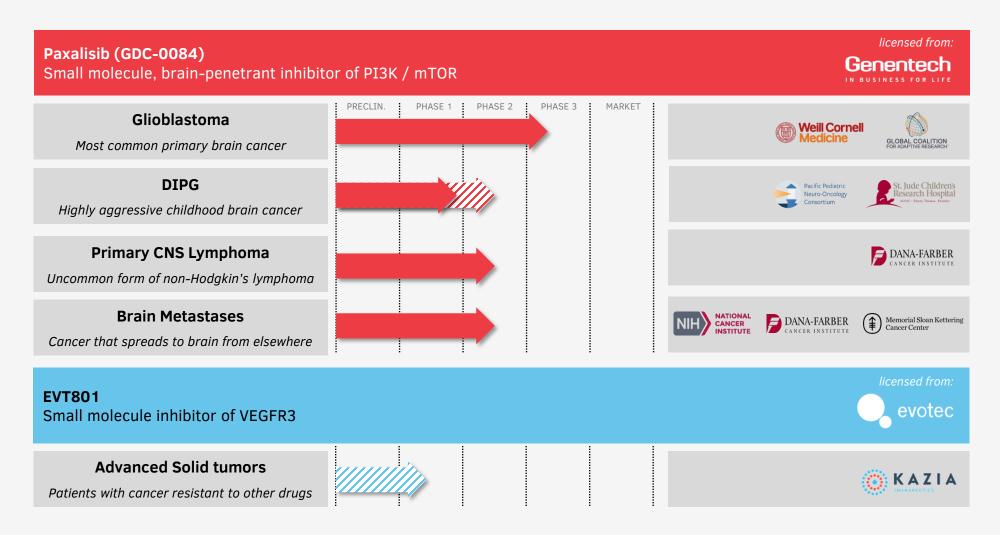
Corporate History

Kazia has shown remarkable growth in five years



Pipeline

Two world-class assets in clinical trials by end CY2021





Operating Model

In-licensing advanced assets drives earlier value realization



License undervalued assets from larger organisations

2016

Paxalisib licensed from Genentech

2021

EVT801 licensed from Evotec



Develop value through innovative clinical trial approaches

2016 - 2021

Paxalisib taken from phase I to phase III in GBM



Partner for late-stage development and commercialisation

2021

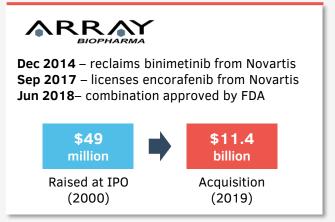
Paxalisib partnered with Simcere in China

2021

Legacy Cantrixil assert partnered with Oasmia

A Proven Strategy







Leadership

Extensive international drug development experience

Board



Iain Ross Chairman







Executive and Board roles in pharma and small biotech

Red Pharma





Bryce CarmineDeputy Chairman



36 years executive experience in Eli Lilly



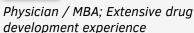
Steven Coffey Non-Executive Director



Chartered accountant with extensive governance experience



Dr James GarnerChief Executive Officer
& Executive Director









Scientific Advisory Board



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





Dr Karen FerranteFormer 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





Financial Metrics

Value-driving news flow for investors



Market Capitalisation	US\$ 130M

Listing	
ASX (primary)	KZA
NASDAQ (ADSs @ 1:10 ratio)	KZIA
Shares on Issue	130M

Balance Sheet	US\$
Cash (at 30 Jun 21)	\$20.3M
Monthly Burn Rate	~\$1.25M

Substantial Shareholders				
Willoughby Capital	16%			
Quest Asset Partners	9%			
Platinum Asset Management	6%			
Board and Management	2%			



CY2021 Milestones and Newsflow

Multiple catalysts across two clinical programs

Commence of recruitment to GBM AGILE pivotal study for paxalisib	January 2021	\checkmark
Out-license of Cantrixil legacy asset to Oasmia Pharmaceutical	March 2021	✓
Partnership for paxalisib in Greater China with Simcere Pharmaceutical	March 2021	✓
Paxalisib interim phase II glioblastoma data at AACR Annual Meeting	April 2021	√
Global in-license of EVT801 from Evotec SE	April 2021	✓
Commence recruitment to paxalisib phase II PCNSL study at Dana-Farber	June 2021	✓
Commence recruitment to PNOC paxalisib combination study in DIPG	2H CY2021	
Initial interim data from paxalisib phase II BCBM trial at Dana-Farber	2H CY2021	
Initial interim data from paxalisib phase II brain mets study by Alliance Group	2H CY2021	
Initial interim data from paxalisib phase I brain mets study at Sloan-Kettering	2H CY2021	
Final data from paxalisib phase II glioblastoma trial	2H CY2021	
Commence recruitment to EVT801 phase I trial	2H CY2021	

Italics - updated guidance

Note: all guidance is indicative, and subject to amendment in light of changing conference schedules, operational considerations, etc.



Investment Rationale

A compelling corporate story

High-Quality Pipeline

- Pipeline assets invented by Genentech (paxalisib) and Sanofi / Evotec (EVT801)
- Targets are wellvalidated (PI3K and angiogenesis)
- Assets are welldifferentiated

Valuable Commercial Opportunities

- Glioblastoma alone is a ~US\$ 1.5B market
- Favourable pricing dynamics in orphan indications such as GBM
- Commercial partnership for paxalisib already in place in Greater China with Simcere Pharmaceutical

Efficient, Well-Funded Business

- ~US\$ 20M cash at 30 June 2021; funds ongoing projects
- Low overheads;
 ~75% of funds are invested directly in clinical trials

Rapid Path to Value Realisation

- Paxalisib potentially within ~2-3 years of market launch
- Multiple data read outs over coming 12-24 months with potential to re-rate
- Demonstrated partnering potential for paxalisib

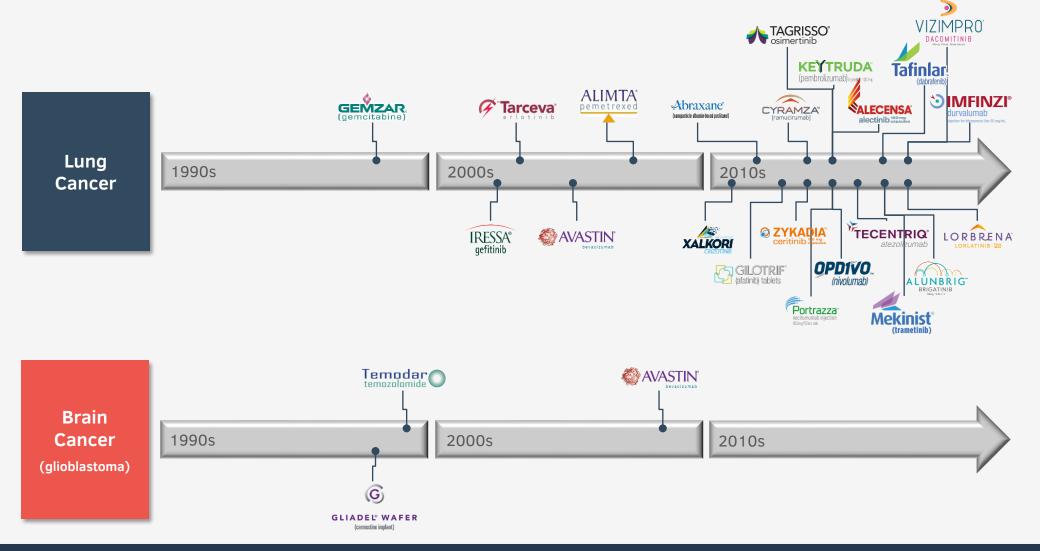


Paxalisib

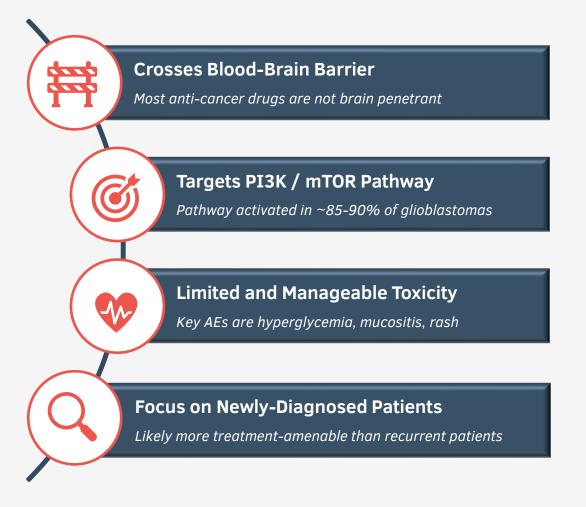
Brain Cancer
Phase III



Treatment of brain cancer has improved little in recent decades, unlike other cancers



Paxalisib was designed specifically to overcome key challenges in the treatment of brain cancer



Oral Presentation

15mg capsule, taken once daily; no significant food effect

Strong IP Protection

Composition-of-matter to 2031 in most jurisdictions

Low Cost of Goods

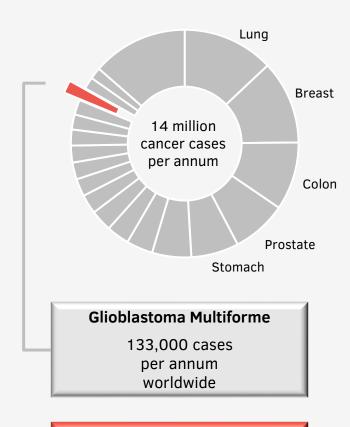
Straightforward manufacture with excellent stability at controlled ambient

Limited Potential for Interactions

Has been successfully combined with other targeted therapies and RTx



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



Indicative Market Opportunity

US\$ 1.5 billion

No clear cause

or strong risk factors

Any age, but most common in

60s

No clear improvement in prognosis for

20 years

3-4 months

untreated survival

12-15 months

average survival with treatment

Five-year survival

3 - 5%

(breast cancer: 90%)



Sen. John McCain



Sen. Ted Kennedy



Beau Biden



Dan Case



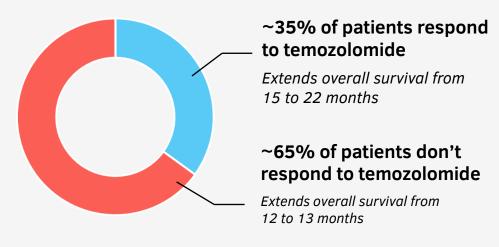
Temozolomide is only FDA-approved drug for GBM; it is ineffective in ~65% of cases

Standard of Care ('Stupp Regimen')

Debulking surgery where possible Radiotherapy + temozolomide maintenance therapy

6 weeks

4w
6 x 28-day cycles



Paxalisib is being developed primarily for the ~65% of newly-diagnosed GBM patients who will not respond to existing chemotherapy with temozolomide

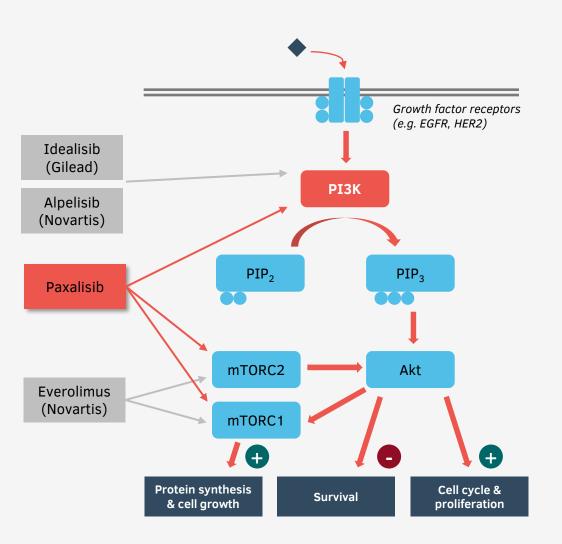
For these patients, there is no effective pharmacological treatment currently available

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

Note: Temozolomide is only approved therapy for newly-diagnosed patients; Avastin (bevacizumab) is approved for use in recurrent setting



The PI3K / Akt / mTOR pathway is a critical signalling mechanism for many tumor types



Comparative Potency vs Other PI3K Inhibitors

	IC ₅₀ (nM)				
	p110α	p110β	p110γ	p110δ	mTORC 1/2
Paxalisib	2	46	10	3	70
Idelalisib	820	565	89	2.5	>1,000
Alpelisib	5	1200	250	290	>9,100
Buparlisib	52	166	262	116	4,600
Pilaralisib	39	383	23	36	>15,000
Taselisib	0.3	9.1	1.0	0.1	1,200
Pictilisib	3	33	75	3	580

Note: lower IC₅₀ implies more potent activity

Source: HF Zhao et al. (2017) Molecular Cancer. 16:100



The PI3K inhibitor class is well-established, but paxalisib is unique in its ability to cross the blood-brain barrier













Zydelig (idelalisib)



Copiktra (duvelisib)

Piqray (alpelisib)

Ukoniq (umbralasib)

paxalisib













FDA Approved
July 2014
(blood cancers)

FDA Approved **September 2017** (blood cancers)

FDA Approved
October 2018
(blood cancers)

FDA Approved
May 2019
(breast cancer)

FDA Approved
February 2021
(blood cancers)

In pivotal study for FDA Approval in glioblastoma

Crosses Blood-Brain Barrier







X



Safety

Potentially fatal liver toxicity and diarrhoea

Potentially fatal infections

Potentially fatal infections and diarrhoea

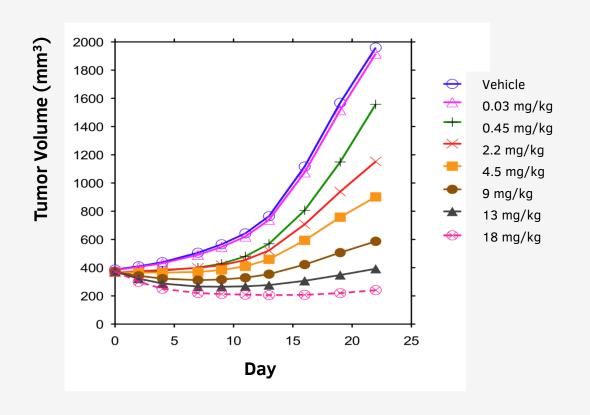
Modest toxicities to date

Serious infections, hepatotoxicity, and diarrhoea Modest toxicities to date



Paxalisib shows convincing single-agent activity in preclinical models of glioblastoma

Illustrative Dose-Dependent Activity in U87 Model



General Findings

Widespread activity in a range of PDX models; appears unaffected by MGMT promotor status

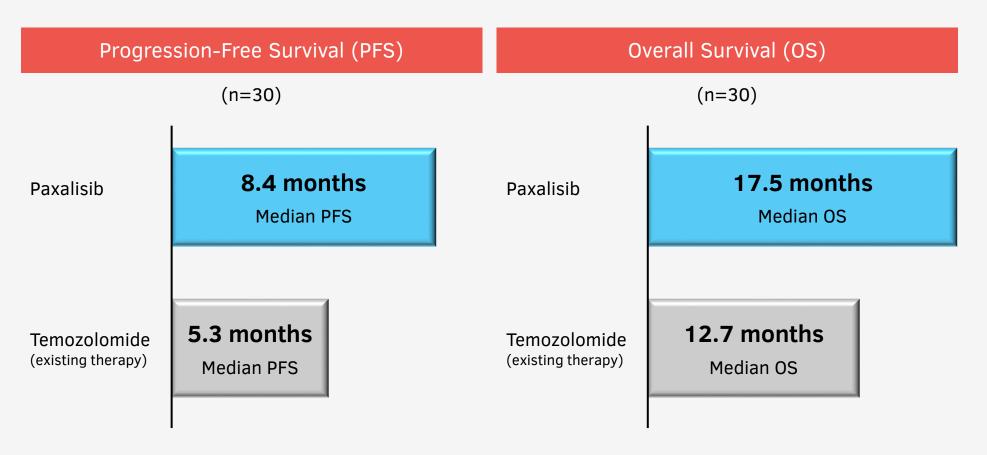
Clear dose - PI3K inhibition - response relationship seen in most experiments

Paxalisib even moderately active in GS2 intracranial model (intact BBB, no PI3K dysregulation) which is resistant to other experimental drugs

Source: data on file



Latest phase II data compares well to historical data for temozolomide (existing standard of care)



Presented at Society for Neuro-Oncology Annual Meeting, November 2020

Note: figures for existing therapy are for temozolomide, per Hegi et al. (2005); comparison between different studies is never perfectly like-for-like

Toxicities are generally mild to moderate, entirely reversible, and manageable with readily-available therapies

Number of Patients at 60mg (n=24) Experiencing AEs 'Possibly' or 'Likely' Related to Paxalisib (affecting ≥2 patients)

Term	Gr 1	Gr 2	Gr 3	Gr 4	Total (%)
Rash	4	6	7		17 (71%)
Fatigue	2	10	2		14 (58%)
Stomatitis	4	6	1		11 (46%)
Decreased appetite	5	5	1		11 (46%)
Nausea	3	5	1		9 (38%)
Hyperglycemia	1	2	5		8 (33%)
Diarrhea	5	1			6 (25%)
Decreased neutrophils	2	3		1	6 (25%)
Vomiting	3	2	1		6 (25%)
Decreased weight	3	2			5 (21%)
Decreased platelets	4	1			5 (21%)
Dehydration		4	1		5 (21%)
Dysgeusia		4			4 (17%)
Decr. lymphocytes	1	2			3 (13%)
Drug reaction			3		3 (13%)
Malaise	2	1			3 (18%)
Incr. cholesterol	2				2 (8%)
Pruritis	1		1		2 (8%)

Presented at Society for Neuro-Oncology Annual Meeting, November 2020



Nine clinical studies are active across multiple forms of brain cancer

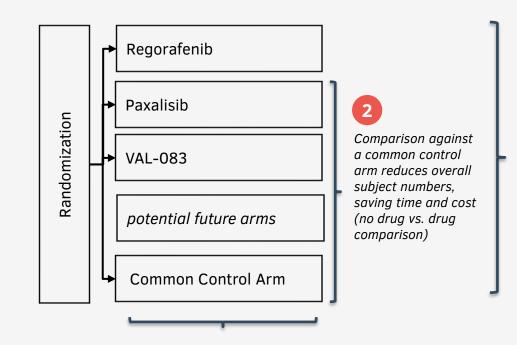
Registration	Indication	Phase	N	Status	Sponsor
Primary Brain Can	icer				
NCT03522298	Glioblastoma	II	30	Follow-up	KAZIA THERAPEUTICS
TBD	Glioblastoma (combination with ketogenic diet)	II	33-60	Start-up	Weill Cornell Medicine
NCT03970447	Glioblastoma (GBM AGILE)	II / III	Up to 200 on paxalisib	Recruiting	GLOBAL COALITION FOR ADAPTIVE IRSEARCH
NCT03696355	DIPG and DMGs	I	27	Follow-up	St. Jude Children's Research Hospital
TBD	DIPG and DMGs	II	TBD	Start-up	Pacific Pediatric Neuro-Oncology Consortium
NCT04906096	Primary CNS Lymphoma	II	25	Recruiting	DANA-FARBER CANCER INSTITUTE
Secondary (Metas	static) Brain Cancer				
NCT04192981	Brain Metastases (combination with radiotherapy)	I	Up to 36	Recruiting	Memorial Sloan Kettering Cancer Center
NCT03765983	Breast Cancer Brain Metastases (combination with trastuzumab)	II	Up to 47	Recruiting	DANA-FARBER CANCER INSTITUTE
NCT03994796	Brain Metastases ('Alliance' multi-drug study)	II	50	Recruiting	NIH NATIONAL CANCER INSTITUTE



GBM AGILE international pivotal study is underway, and is expected to provide the basis for regulatory approval

Key Points

- A 'platform study', run independently of individual companies, designed to expedite the approval of new drugs for glioblastoma
- Multiple drugs are evaluated in parallel, saving time and money
- Not a 'winner-takes-all' approach: multiple drugs can succeed
- Cutting-edge 'adaptive design' avoids redundant recruitment, expediting path to market
- Strong support from FDA and key opinion leaders



Adaptive study design limits

required to demonstrate efficacy.

number of subjects to that

eliminating redundancy

3

Economies of scale due to multiple participating drugs allows for large site pool, robust study infrastructure, and reduced cost

4

Primary endpoint is overall survival (OS), the 'gold standard' for approval of new cancer drugs



Commercial opportunity is substantial, with one commercial partnership already in place

'Blue Sky' Opportunities



Other Cancers with PI3K Dysregulation

(e.g. breast, lung)

Expansion Indications



Other Brain Cancers

Brain mets: ~150,000 cases pa in US

Primary Focus



Glioblastoma

12,500 patients pa in US US\$ 1.5 billion globally



Key Points

- Well-understood mechanism (PI3K inhibition) but unique differentiating feature (brain penetration)
- Positive phase II data in glioblastoma, supported by very strong preclinical package and positive phase I data
- Fully-funded international registration study underway with support of FDA and leading clinicians
- Broad trial program underway with world-class centres in other forms of brain cancer; de-risks lead indication
- Targeting a US\$ 1.5B market for glioblastoma alone, with limited competition and very high unmet-need



EVT801

Solid Tumors Pre-Phase I



Targeting angiogenesis is a well-established approach in the treatment of cancer

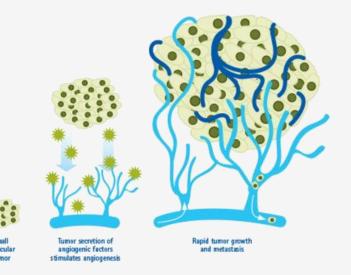
Product	Company	Target	Indications	Annual Sales (US\$)*
AVASTIN® bevacizumab	Genentech A Member of the Roche Group	VEGF-A	Colorectal cancerLung cancerBreast cancerOther cancers	\$7 billion
Nexavar° (sorafenib) tablets	B A BAYER E R	VEGFR PDGFR RAF kinases	Hepatocellular carcinomaRenal call carcinomaThyroid cancer	\$1 billion
SUTENT® sunitinib malate	Pfizer	VEGFR PDGFR	Renal cell carcinomaGasto-intestinal stromal tumor	\$750 million
Votrient® pazopanib tablets (200 mg)	U NOVARTIS	VEGFR PDGFR c-Kit FGFR	Renal cell carcinomaSoft tissue sarcoma	\$1 billion
Inlyta. axitinibImgentSmg tablets	Pfizer	VEGFR c-Kit PDGFR	Renal cell carcinoma	\$400 million

^{*}approximate, based on company filings and market data



Despite their proven efficacy, angiogenesis inhibitors are limited by several key challenges

Angiogenesis inhibitors work by reducing the formation of **new blood vessels** around the tumor, starving it of vital nutrients needed for tumor growth, and limiting its ability to spread (metastasise) elsewhere in the body



Tumor Hypoxia

Sustained tumor hypoxia activates adaptive mechanisms, leading to secondary resistance and tumor progression

Limited
Duration of
Effect

Off-Target Activity

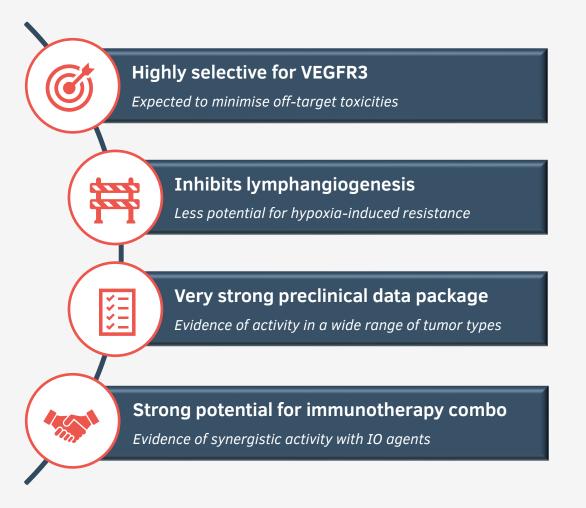
Most small molecule angiogenesis inhibitors have a broad range of pharmacological activities, leading to substantial toxicity (e.g. hand-foot syndrome)



Significant
Side Effects



EVT801 is a selective VEGFR inhibitor, primarily inhibiting lymphangiogenesis (formation of new lymphatic vessels)



Oral Presentation

Administered by mouth once or twice daily

Strong IP Protection

Composition-of-matter to 2032 / 2033 in most jurisdictions

Low Cost of Goods

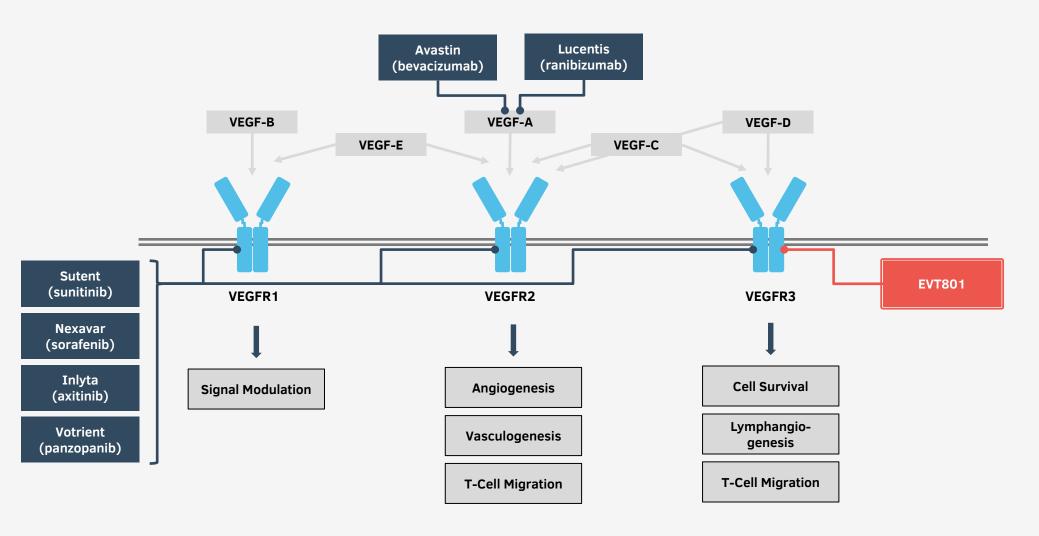
Straightforward manufacture with excellent stability at controlled ambient

Favourable Preclinical Toxicology

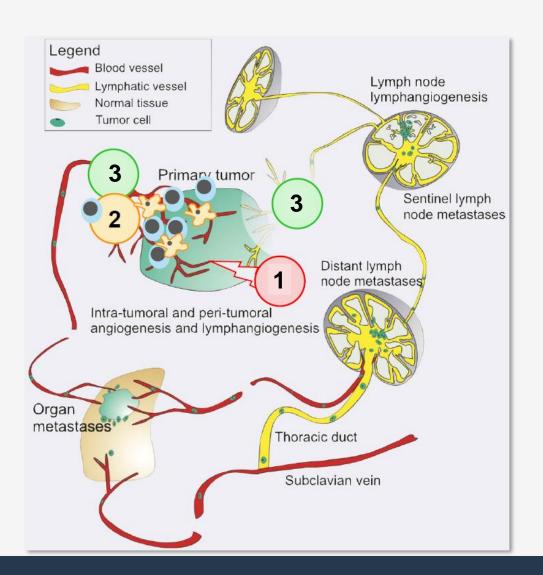
Limited evidence of toxicity in onemonth GLP animal studies



EVT801 selectively inhibits **VEGFR3**



EVT801 is expected to have three primary mechanisms of action



Tumor Killing

Direct effect on VEGFR3-expressing tumor cells (typically from endothelial origin, e.g. sarcoma)

Increase in Anti-Tumor Immune Activity

Increased infiltration of effector T-cells, and reduction in immunosuppressive myeloid cells

Inhibition of Metastasis

Stabilisation of tumor vasculature and avoidance of hypoxia decreases potential for metastatic spread



Preclinical data confirms activity of EVT801 (1/2)

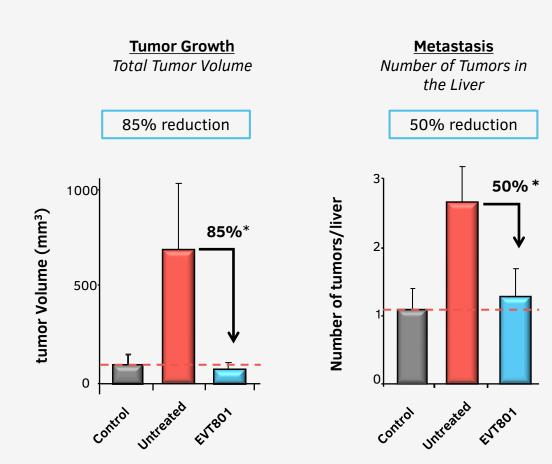
Dramatic single-agent activity in DEN-induced HCC model

Experimental Methods

- Syngeneic mouse model
- Hepatocellular carcinoma chemically induced with diethylnitrosamine (DEN)
- Treatment with EVT801 in M10-M12

Conclusions

- EVT801 monotherapy causes marked reduction in growth of primary tumor versus untreated comparator
- EVT801 appears to have significant anti-metastatic effect



^{*} Statistically significant (p<0.05)

Data on file



Preclinical data confirms activity of EVT801 (2/2)

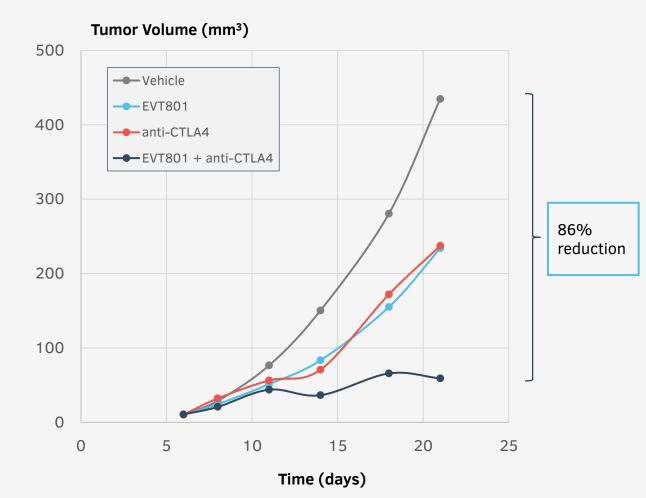
Synergistic activity in combination with anti-CTLA4 mAb

Experimental Methods

- · Orthotopic mouse model
- 4T1 tumor cells inoculated in BALB/c mice (mammary fat pad)
- Treatment with EVT801 on D7-D21 and with anti-CTLA4 on D7, D14, D21

Conclusions

- EVT801 monotherapy has approximately equivalent activity to anti-CTLA4 antibody
- Combination of EVT801 and anti-CTLA4 antibody is highly synergistic



Data on file

Note: CTLA4 is the target of Yervoy® (ipilimumab), an approved immuno-oncology therapy



Kazia plans to commence a phase I clinical trial in CY2021



Up to 90 patients with advanced solid tumors, resistant to existing therapies



Endpoints will include safety and tolerability, mechanism of action, and preliminary efficacy



EVT801 administered both as monotherapy and in combination with immuno-oncology therapies



Rich suite of biomarkers investigated to provide deep understanding of EVT801 activity



First Patient In (FPI) by end of CY2021

Current Status	
Investigational product manufactured and ready to ship	✓
Draft clinical trial protocol prepared and under discussion with clinicians	✓
Preclinical toxicology package complete for phase I	✓
Regulatory documentation prepared	√
Biomarker assays in advanced development	√
Two sites in EU selected to commence phase I study	√
CRO selected for phase I study	✓



Key Points

- Well-understood mechanism (anti-angiogenesis) but unique differentiating feature (VEGFR3 selectivity)
- Very strong preclinical data package, with evidence of activity in multiple tumors and favourable toxicology
- High potential for combination use with immunooncology therapies
- 'Clinic-ready', with phase I study anticipated to start in CY2021
- Substantially diversifies Kazia pipeline beyond PI3K and beyond brain cancer





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