ASX RELEASE

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KAZIA INITIATES PREPARATORY ACTIVITIES TO BRING GDC-0084 INTO GBM AGILE, AN INTERNATIONAL PHASE II / III STUDY IN GLIOBLASTOMA

Sydney, 11 December 2019 – Kazia Therapeutics Limited (ASX: KZA; NASDAQ: KZIA), an Australian oncology-focused biotechnology company, is pleased to announce that it's lead program, GDC-0084, has been selected to join GBM AGILE, an international, academic-led, multi-drug adaptive phase II / III study in glioblastoma. It is expected that data from GBM AGILE will be used to seek marketing approval for GDC-0084 from FDA and other regulatory agencies.

Key Points

- GBM AGILE (NCT03970447) is an adaptive 'master protocol' study, in which different drug candidates can be tested for potential use in glioblastoma
- Study is designated phase II / III and data from it is considered acceptable for product registration purposes by US FDA
- Kazia has entered into a preliminary agreement to commence planning and set-up activities for inclusion of GDC-0084 in GBM AGILE, with a view to commencing recruitment in Q2 / Q3 CY2020, subject to a definitive agreement
- Kazia plans to participate in GBM AGILE in place of a company-run registration study, and GBM AGILE will serve as the path-to-market for GDC-0084
- Study is expected to recruit up to 200 patients into the GDC-0084 arm

Dr Timothy Cloughesy, GBM AGILE Global Principal Investigator, commented, "we see an urgent need for new therapies in glioblastoma, and GBM AGILE has been designed to provide an opportunity for industry to test new therapeutic agents in a cutting-edge, registration-level study, at considerably lower cost and in a faster time than would typically be possible for a company-driven study. GDC-0084 has the potential to become an important treatment option for brain cancer, and this study is the best way to definitively determine its efficacy in this challenging disease."

GBM AGILE is sponsored and administered by the Global Coalition for Adaptive Research (GCAR), a non-profit organization which includes many of the world's leading scientists and clinicians in the field of brain cancer (www.gcaresearch.org).

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

The study commenced recruitment of its first investigational arm in June 2019. GBM AGILE is designed as a 'master protocol' study, into which different drug candidates can be placed for testing against a common control arm. It is an 'adaptive study', utilizing Bayesian statistical techniques to dynamically adjust the number of patients in a given arm according to emerging signals of activity. This minimizes redundant patient recruitment, saving cost and time. The primary endpoint is overall survival (OS), which is considered the 'gold standard' for the approval of new cancer therapies by FDA and other regulatory agencies. Participating drugs are first examined in a stage 1 (phase II) component, which then progresses seamlessly into a stage 2 (phase III) component once pre-defined efficacy hurdles are met.

Dr James Garner, Kazia CEO, commented, "GBM AGILE offers three enormous advantages to Kazia. First, the highly innovative adaptive design allows us to test GDC-0084 in the fastest and most cost-effective way possible. Second, the considerable technical, scientific, and operational capability in GCAR gives us access to resources that we could never hope to draw upon otherwise. Third, the quality of the study, and the caliber of the participating sites, means that GDC-0084 will have the best possible opportunity to demonstrate its potential. No company our size could run a study like this single-handedly, so we have adopted GBM AGILE as our primary path-to-market strategy for GDC-0084."

Dr Garner was speaking from the inaugural International Glioblastoma Drug Development Summit in Boston, MA, where Kazia is an invited speaker. The Summit has convened many of the leading researchers, clinicians, and industry participants in the field of glioblastoma to discuss new approaches to the development of novel therapies.

GBM AGILE has the potential to test new drug candidates in several different patient subgroups. In addition to the newly-diagnosed unmethylated group, which Kazia has already identified as the primary target population, the intent is to also test GDC-0084 in recurrent patients. The company may consider future use in newly-diagnosed methylated patients in consultation with clinicians as further data becomes available.

Kazia and GCAR have entered into a preliminary agreement to begin set-up work for inclusion of GDC-0084 in GBM AGILE, and it is expected that this work will take approximately four to six months. The proceeds of Kazia's recent institutional financing round will be used to support these activities. Patient recruitment is expected to begin in Q2 / Q3 CY2020, and will be contingent upon execution of a definitive agreement between the parties.

Dr Meredith Buxton, COO of GCAR, added, "the future of drug development requires new approaches, particularly in challenging diseases such as glioblastoma. GBM AGILE is scientifically rigorous, highly efficient, and statistically innovative, and has been designed to provide the best possible platform to generate new treatment options for patients. We look forward to working with the Kazia team to bring GDC-0084 into the study as swiftly as possible."

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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 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, the most common and most aggressive form of primary brain cancer in adults. Licensed from Genentech in late 2016, GDC-0084 entered a phase II clinical trial in 2018. Interim data was reported in November 2019, and further data is expected in 1H 2020. GDC-0084 was granted orphan designation for glioblastoma by the US FDA in February 2018.

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. Interim data was presented at the ESMO Congress in September 2019, and the study remains ongoing. Cantrixil was granted orphan designation for ovarian cancer by the US FDA in April 2015.

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

This announcement contains forward-looking statements. Forward-looking statements (as defined under Private Securities Litigation Reform Act of 1995) are not guarantees, and they involve risks, uncertainties and assumptions. Although we make such statements based on assumptions that we believe to be reasonable, there can be no assurance that actual results will not differ materially from those expressed in the forward-looking statements. We caution investors not to rely unduly on any forward-looking statements and urge you to carefully consider the risks described in our previous filings. We expressly disclaim any obligation to update any forward-looking statement in the event it later turns out to be inaccurate, whether as a result of new information, future events or otherwise.

Q&A

In addition to GBM AGILE, will Kazia also conduct its own registration study for GDC-0084, as previously described to the market?

No. Our anticipated participation in GBM AGILE represents a change in strategy for the GDC-0084 program. Kazia's original intent had been to execute a pivotal study of its own to seek registration for GDC-0084. That study was well-advanced in design, and key features have previously been shared with investors. However, after detailed due diligence, the company has formed a view that the opportunity to participate in GBM AGILE represents a superior path forward for GDC-0084, and so we have reoriented our development plan accordingly.

GBM AGILE is in several respects a more robust and comprehensive study than that originally planned by Kazia. Moreover, the innovative design means that it can be performed at a substantially lower cost than the study previously planned by Kazia.

Kazia has been very successful in following a partnership-driven model of clinical development for the GDC-0084 asset, which has allowed us to deploy a broad-based clinical program of vastly greater quality and reach than would ordinarily be possible for a company our size. Four clinical collaborations have already been launched under this innovative operating model. GBM AGILE represents the latest embodiment of that strategy.

What are the key differences between GBM AGILE and Kazia's previously planned pivotal study?

There are substantial differences in approach between the studies, which cannot be easily summarized, but some of the most pertinent points of comparison include:-

- *Primary Endpoint* – GBM AGILE uses overall survival (OS) as a primary endpoint, whereas the Kazia study had planned to use progression-free survival (PFS). While PFS is highly likely to be an approvable endpoint in this indication, OS is generally considered more robust and is the 'gold standard' for approval of new cancer drugs.

- *Number of Treated Patients* – Kazia's study was expected to administer GDC-0084 to 114 patients (with a further 114 patients recruited to a comparator arm). GBM AGILE will treat up to 200 patients with the drug, potentially providing a more substantial database, although the exact number will be adjusted dynamically throughout the course of the study.

- *Patient Population* – Kazia had planned to focus purely on newly-diagnosed glioblastoma patients with the unmethylated MGMT promotor, who are effectively resistant to temozolomide, the existing standard of care. GBM AGILE will recruit these patients to the GDC-0084 arm, but will also include recurrent patients, who have experienced disease progression after treatment with temozolomide. Should GDC-0084 prove efficacious in both populations, it will allow for a larger commercial market on approval.

What does it mean to say that GBM AGILE is an 'adaptive' study? And what is a 'master protocol' study?

Conventional clinical trials define a target number of patients at the outset, based on certain assumptions around treatment effect, drop-out rate, etc. Often, the number of patients ends up greater or less than were actually required, leading to inefficiency and, on occasion, the failure of potentially efficacious drugs.

An adaptive study is one that dynamically adjusts the number of patients in the study according to emerging data, so that only the number necessary to answer the question are recruited. This is considered a more efficient approach to drug development, and one that has received considerable interest and support from clinicians, industry, and regulatory agencies.

A master protocol study is one that allows for testing of more than one investigational drug, and will typically open and close different arms over time as different drugs enter and leave the study. It provides considerable operational efficiency, particularly in less common diseases such as glioblastoma. GDC-0084 is already participating in a similar trial – the Alliance study in brain metastases (NCT03994796), which currently includes three experimental arms.

What does this mean for Kazia's current phase II study of GDC-0084 in glioblastoma?

Kazia and GCAR are of the opinion that the evidence currently in hand is sufficient to warrant moving forward with GBM AGILE, and so the current phase II study is not considered rate-limiting for the transition to a pivotal study.

However, emerging data from the phase II study remains important to the broader development of GDC-0084 and may help to inform statistical calculations and operational matters relating to GBM AGILE. Kazia intends to continue with the phase II study as planned, and will continue to report new data as it becomes available. In the meantime, set-up and preparatory work will commence in parallel for GBM AGILE, allowing Kazia to realize significant operational efficiencies.

How did Kazia become aware of GBM AGILE, and what has been the process to get to this point?

A number of clinicians who are currently participating in Kazia's phase II study of GDC-0084 in glioblastoma have leadership roles in GBM AGILE. They have recommended inclusion of GDC-0084 and have facilitated the necessary introductions and relationships. Kazia recently presented GDC-0084 data to GCAR's Arm Selection Committee and was invited to join the study shortly thereafter.

How confident is Kazia that data from GBM AGILE will be acceptable to regulatory agencies for product registration?

GCAR has consulted extensively with FDA and with other national regulatory agencies. FDA has indicated that it expects data from GBM AGILE to be suitable for product registration,

should efficacy be demonstrated, and assuming that other matters such as manufacturing and preclinical toxicology are of appropriate standard.

GDC-0084 will be the second drug to join GBM AGILE. Does this mean that only one drug can be successful, and that GDC-0084 will have to show superiority to other agents?

No. The study is designed to compare participating drug candidates against a common control arm, but not to make drug-versus-drug comparisons. It is possible that several successful drug candidates will eventually emerge from the GBM AGILE study, and this could only be of benefit to patients.

For comparative purposes, a total of approximately twenty new drugs have been approved in lung cancer over the past decade. Kazia hopes and expects that a number of new drugs will become available for patients with glioblastoma over the next few years, and the company intends to do everything possible to ensure that GDC-0084 is one of them.

Is it expected than an additional study will be required, either subsequent to or in parallel with GBM AGILE, in order to achieve regulatory approval?

No. It is anticipated that GBM AGILE will serve as a single pivotal study for registration of GDC-0084. Kazia may nevertheless consider other clinical trial opportunities in due course to expand the potential use of GDC-0084, but it does not anticipate that another substantial evidence study would be on the critical path for regulatory approval in glioblastoma.

Academic-led studies can sometimes be operationally challenging. How confident is Kazia in GCAR's ability to execute this complex study?

Kazia has conducted extensive discussions with the GCAR team and believes that it brings world-class professionalism to the study. GCAR has engaged IQVIA, one of the world's leading contract research organisations, to execute the study, and has selected top tier sites to participate. The enterprise is profoundly motivated by the desire to accelerate availability of new treatment options for patients with glioblastoma, a commitment which Kazia wholly shares.

How much will GBM AGILE cost?

Kazia will fund the participation of GDC-0084 in GBM AGILE through a commercial agreement with GCAR. However, the adaptive design, and the economies released by shared infrastructure and a common control arm, mean that the cost of participation will be very substantially lower than the cost of a comparable standalone, company-run study. The commercial terms remain confidential.

How will Kazia fund GBM AGILE?

The proceeds of Kazia's recent institutional placement will allow the company to execute start-up and preparatory work, which is expected to take four to six months. As with previous

studies, Kazia will consider all options to fund the study to completion, noting that the funding requirement will be very substantially lower than would otherwise have been the case.

What will be the key milestones associated with GBM AGILE?

Kazia is not yet in a position to provide definitive guidance on operational milestones. However, the company hopes to begin recruitment of patients to the study in Q2 / Q3 CY2020. The duration of the study thereafter will depend, among other factors, on the number of patients ultimately recruited, in accordance with the adaptive design. Kazia expects to provide further detail on milestones in due course.

In addition to the ongoing phase II study in glioblastoma, and the planned involvement in GBM AGILE, Kazia has four other ongoing clinical studies in different forms of brain cancer that will also be reporting data periodically.

Will Australian sites participate in the study?

GBM AGILE is an international study, and it is expected that Australia will participate. Kazia anticipates that the GDC-0084 arm will initially open in the United States, and the company is presently seeking Federal grant funding through the Medical Research Future Fund (MRFF) to facilitate inclusion of Australian sites.

Does the engagement with GBM AGILE mean that Kazia no longer expects to partner GDC-0084 prior to launch?

No. Kazia continues to believe that GDC-0084 is a highly attractive asset to pharma partners, and continues to engage actively with a number of companies.

Kazia believes that the best way to realise commercial value for shareholders is to keep all options open, and so the company is proceeding with GBM AGILE as a path-to-market, in parallel with its partnering activities. Should a partnering transaction occur, it is entirely feasible that Kazia's involvement with GBM AGILE could be transitioned in whole or in part to another company at any point during the study.