

ASX Release

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<u>Tickers:</u>

Australia (ASX): ZLD USA (OTC): ZLDAF

Ordinary Shares:

755,341,934

Options:

46,000,000

1,500,000 (\$0.04 - 6/2/2020) *4,500,000 (\$0.04 - 6/2/2020) 40,000,000 (\$0.03125 - 17/11/2021) * subject to vesting conditions

NEW RESEARCH TO EXPLORE THE EFFECTS OF CANNABINOIDS IN DIABETES-RELATED CONDITIONS

- Zelda has broadened its research focus and existing collaboration with
 Curtin University to target diabetes-related cognitive decline
- New research activities to explore the potential to use a cannabinoid based therapeutic in animal models of diabetic cognitive decline
- Diabetics often present cerebral capillary dysfunction, which can compromise the integrity of the blood-brain barrier
- This capillary dysfunction results in neuro-inflammation in the brain, which is associated with neurodegeneration and cognitive decline that as a result leads to dementia and other related conditions.
- Significant potential benefits for diabetes sufferers, which equates to over 422 million people¹ globally, who are at risk of capillary damage that can lead to cognitive decline.

Zelda Therapeutics Ltd (ASX: ZLD, "Zelda" or the **Company**) is pleased to announce that it has expanded its pre-clinical research programme with Curtin Health Innovation Research Institute (Curtin University) to include diabetes related cognitive decline.

The research will focus on studying the effect of a cannabinoid-based therapeutic moderating the effects of cerebral capillary damage associated with diabetes.

Diabetes is a chronic disease that occurs either when the pancreas does not produce enough insulin or when the body cannot effectively use the insulin it produces. This can lead to a number of complications including the damage to blood vessels in the brain, associated with cognitive decline that can lead to dementia and other related conditions. Globally in 2017, 50 million people² suffered from dementia alone, and the risk of developing dementia for people with diabetes is 2.77-fold greater than the normal healthy population³.

Zelda's research study will occur in well validated animal models of diabetic cognitive decline developed by Curtin University's world class research team led by Associate Professor Ryu Takechi over the next 12-18 months.

Positive results will allow Zelda to consider commercialisation opportunities of cannabinoid-based medicines in jurisdictions where it has a clear pathway to market and access to distribution partners.

Diabetes associated cognitive decline is a rapidly growing market, with the number of dementia sufferers expected to almost double every 20 years, reaching 75 million in 2030 and 131.5 million in 2050². In 2018, the global cost of dementia is expected to rise above a US\$1 trillion. As such, any treatment option shown to provide some form of protective benefit is likely to be a significant relief for potential suffers and a global economic benefit.

Executive Chairman of Zelda Harry Karelis stated:

"This study has the potential to demonstrate that daily dosing of certain cannabinoids can provide some type of long-term benefit to diabetes sufferers and moderate the effect of capillary damage – at least in validated animal models. The market for cannabis-based therapeutics and wellness products is growing very rapidly. Positive results in this study will open up a significant market opportunity for Zelda."

Associate Professor Ryu Takechi of Curtin University (NHMRC's Dementia Leadership Research Fellow) stated:

"Tackling the dementia aetiology and prevention through the cerebral capillary perspective is rapidly gaining attention in recent years. Our team are at the forefront of research in this area and are excited by the potential of cannabinoids to conduct these pioneering studies that may potentially benefit the large community of diabetes patients who are at significantly higher risk of developing dementia."

Tim Slate	
Company Secretary	

About Zelda Therapeutics (www.zeldatherapeutics.com)

Zelda Therapeutics ("Zelda") is an Australian-based bio-pharmaceutical company that is focused on developing a range of cannabinoid-based formulations for the treatment of a variety of medical conditions. The Company has a two-pronged strategy comprising:

- A human clinical trial programme focused on insomnia, autism and eczema with activities in Australia, Chile and the USA.
- A pre-clinical research programme examining the effect of cannabinoids in breast, brain and pancreatic cancer. It has
 partnered with the world's leading cancer cannabis researchers at Complutense University Madrid in Spain to conduct
 certain pre-clinical work testing cannabis-based formulations known to have an effect in humans in order to generate data
 packs in a form expected by regulators and the pharmaceutical industry. A similar programme is in place with the Australian
 Telethon Kids Institute targeting paediatric brain cancer and Curtin University targeting pancreatic cancer.

About Curtin University

Curtin University is Western Australia's largest university, with more than 56,000 students. Of these, over 14,000 are international students. The University's main campus is in Bentley near the Perth CBD. Curtin has five other campuses across WA, Malaysia and Singapore and Dubai. Curtin also has presence at a number of other global locations.

The University has built a reputation around innovation and an entrepreneurial spirit, being at the forefront of many high-profile research projects in astronomy, biosciences, economics, mining and information technology. It is also recognised globally for its strong connections with industry, and for its commitment to preparing students for jobs of the future.

About Diabetes and Cognitive Decline

Numerous studies have linked cognitive decline to diabetes, more recently one of the largest studies of 5,000 older people in the United Kingdom investigated the connection between blood sugar and brain function and found that people with pre-diabetes and diabetes experience worse long-term cognitive decline than people with normal blood sugar levels⁴. The risk of developing dementia for people with diabetes is 2.77 gold greater than the general population³.

¹ WHO Diabetes Factsheet, November 2017

² Alzheimer's Disease International, Dementia, 2017

³ World Journal of Diabetes, Emerging links between type 2 diabetes and Alzheimer's disease, 10 June 2015

⁴ Diabetologia, New research shows diabetes and worse blood sugar control are associated with long-term cognitive decline, 25 January 2018