ASX ANNOUNCEMENT

Supportive research highlights cortisol hypothesis

- Study in journal Neurology concludes link between higher serum (blood) cortisol, decreased cognitive performance, and decreased brain volume
- Findings support hypothesis underpinning development of Xanamem for the treatment of Alzheimer's disease and cognitive impairment
- The building interest supporting the cortisol hypothesis bodes well for Actinogen in the lead up to top-line results from the XanADu Alzheimer's trial, in Q2 2019

Sydney 8 November 2018. Actinogen Medical ASX: ACW ('ACW' or 'the Company') is pleased to highlight a recent study in Neurology, the most highly regarded global peer-reviewed neurology journal, demonstrating an association between higher serum (blood) cortisol, impaired cognitive performance, and decreased brain volume.

Titled '*Circulating cortisol and cognitive and structural brain measures*' *(Echouffo-Tcheugui et al., 2018)* the study evaluated a group of over 2000 men and women with an average age of 48 with no signs of dementia. The study performed whole brain scans on the participants, and each participant was then given multiple psychological exams to measure their cognition.

All study participants were part of the Framingham Heart Study, a prominent and influential long-term study sponsored by the National Heart, Lung and Blood Institute in the USA, which has been following the health of residents of Framingham, Massachusetts, and their families since 1948.

Eight years after initial testing, the blood cortisol levels of participants were measured again, and both the brain MRI scans and the psychological exams were repeated.

After adjusting the data to take into account age, sex, body mass, and smoking, the study results demonstrated that participants with the highest levels of serum cortisol had the highest levels of impaired memory, or memory loss. In addition, the study found that people with higher cortisol levels had lower brain volumes, reflecting the structural damage to the brain from persistently raised cortisol.

This study builds on an increasing body of evidence linking persistently raised cortisol levels with cognitive impairment and Alzheimer's disease. This emergent data provides further support the premise underpinning the development of Xanamem, Actinogen's lead drug, which has been specifically designed to inhibit the excess production of cortisol in the brain, and particularly in the areas of the brain most impacted by Alzheimer's disease. This Neurology paper comes at an important time for Actinogen in the lead up to completion of XanADu, the Company's international trial of Xanamem in Alzheimer's disease, and the expected report-out of top-line results from the study in Q2 2019.

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About Actinogen Medical

Actinogen Medical (ASX: ACW) is an ASX-listed biotech company focused on innovative approaches to treating cognitive decline that occurs in chronic neurodegenerative and metabolic diseases. Actinogen Medical is developing its lead compound Xanamem, as a promising new therapy for Alzheimer's disease, a condition with a multibillion-dollar market potential. In the US alone, the cost of managing Alzheimer's disease is estimated to be US$250bn, and is set to increase to US$2tn by 2050, outstripping the treatment costs of all other diseases. Alzheimer's disease is now the leading cause of death in the UK and second only to ischaemic heart disease in Australia

About Xanamem™

Xanamem's novel mechanism of action sets it apart from other Alzheimer's treatments. It works by blocking the excess production of cortisol - the stress hormone – through the inhibition of the 11β-HSD1 enzyme in the brain. This enzyme is highly concentrated in the hippocampus and frontal cortex, the areas of the brain most affected by Alzheimer's disease. There is a strong association between chronic stress and excess cortisol that leads to changes in the brain affecting memory, and to the development of amyloid plaques and neural death – all hallmarks of Alzheimer's disease.

About XanADu

XanADu is a Phase II double-blind, 12-week, randomised, placebo-controlled study to assess the safety, tolerability and efficacy of Xanamem in subjects with mild dementia due to Alzheimer's disease. XanADu, is enrolling 174 patients at 25 research sites across Australia, the UK and the USA. Enrolment is expected to complete in Q4 2018, with top-line results expected in Q2 2019. The trial is registered on www.clinicaltrials.gov with the identifier: NCT02727699, where more details on the trial can be found, including the study design, patient eligibility criteria and the locations of the study sites.

Actinogen Medical encourages all current investors to go paperless by registering their details with the designated registry service provider, Link Market Services.