

September 2018

## Investment Highlights

- Actinogen Medical (ASX:ACW) is an ASX-listed biotechnology company developing an innovative treatment for Alzheimer's disease and the cognitive decline associated with neurodegenerative and metabolic diseases.
- Xanamem is ACW's novel drug candidate specifically designed to inhibit the production of the "stress hormone" cortisol in the brain. Excess cortisol associated with the development and progression of Alzheimer's disease.
- A Phase II clinical trial of Xanamem™ in mild Alzheimer's disease (XanADu) is currently in progress with 25 sites recruiting in Australia, the US and the UK.
- ACW led by accomplished team including CEO Dr. Bill Ketelbey, a key figure in the development of Pfizer's market-leading Alzheimer's treatment Aricept and Chairman Dr. Geoff Brooke, successful founder of high-profile venture capital firms Medvest Inc and GBS Venture Partners.

### Attractive to big pharma

- ACW is attractively priced compared to its peer group and the discount is likely to narrow as its Phase II clinical trial progresses
- Xanamem has a composition-of-matter patent term through to at least 2031
- Xanamem's action, through inhibiting cortisol, has the potential to treat many medical conditions
- Compelling opportunity for investment in a novel approach to Alzheimer's treatment, with the company well placed to achieve a number of key milestones in the next 6-12 months, including completion and results of its Phase II Alzheimer's study.

ASX Code	ACW
Market Capitalisation	\$63.1m
Enterprise Value	\$53.1m
52-week High/Low	\$0.04-\$0.066
Top 20 Shareholdings	61%

## Top 10 Shareholders

HSBC Custody Nominees	24.34%	CS Fourth Nominees	2.04%
National Nominees Ltd	4.49%	Warambi Sari	2.01%
Edinburgh Technology Fund Limited	4.43%	BNP Paribas Nominees Pty Ltd	1.93%
JK Nominees Pty Ltd	3.68%	Mr Martin Rogers	1.84%
Citicorp Nominees	2.12%	Sunset Capital Management Pty Ltd	1.84%

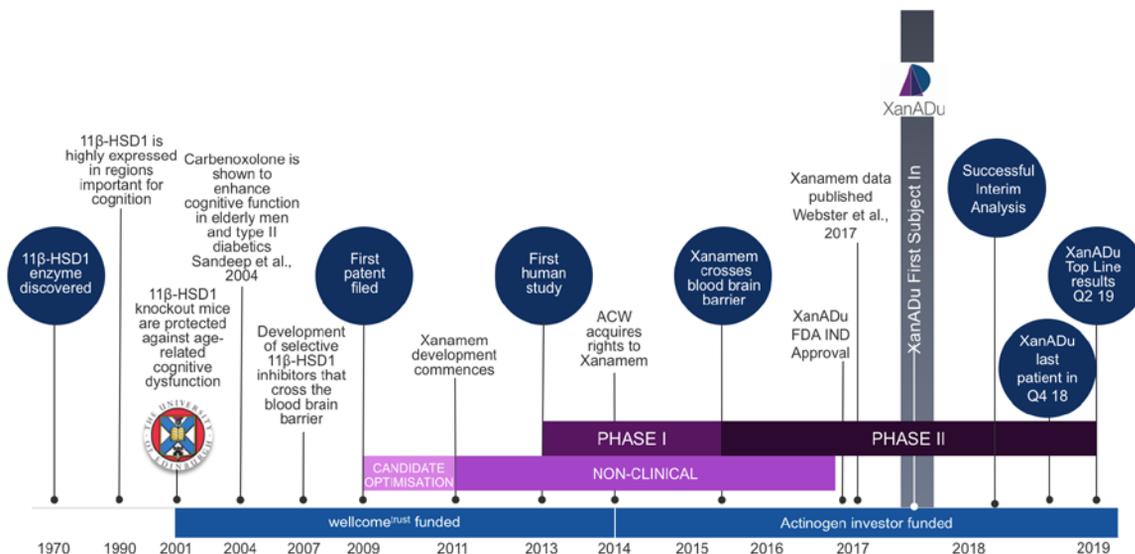
**Significant investors that invested in the Placement in May 2018 include:**



## Financials FY18 (AUD)

- Total expenditure of \$9.57 million - driven by its R&D activities and ongoing XanADu trial.
- Successfully completed a \$5.28m Placement in November 2017 and a further \$16.5m raised in 2018 via institutional placement and Share Purchase Plan.
- Closed the year with \$10m in cash and cash equivalents and is fully funded to complete its XanADu Phase II trial and to progress the further development of Xanamem.

## Operational Milestones



## What is Xanamem

- Xanamem has been specifically designed to inhibit the production of cortisol in the brain by blocking the activity of the enzyme, 11 $\beta$ -HSD1.
- Blocking this enzyme prevents conversion of the inactive cortisone into the active cortisol.
- Drugs that reduce cortisol in the brain offer a promising new approach to slowing the cognitive decline associated with Alzheimer's disease and other diseases like diabetes, Parkinson's, depression.
- Human and animal studies have shown significant cognitive improvement following cortisol inhibition in the brain after only 28 days of treatment.
- Patents are now granted across all major markets, including Australia, the USA, UK, EU, Japan, China and Canada out to 2031 at least.

## Cortisol and Alzheimer's Disease

- Cortisol, commonly known as the "stress hormone", is produced in times of physical and mental stress.
- If cortisol is persistently raised for long periods it can become toxic to the nerve cells in the brain.
- Patients with raised cortisol include those with diabetes, depression and Alzheimer's disease.
- Compelling evidence supporting the association between cortisol and Alzheimer's disease is provided in various research pieces including the Australian Imaging, Biomarker & Lifestyle Study of Ageing (AIBL) published (Pietrzak et al., 2017); research by Wheelan et al 2017 and a study in *Nature* by Stuart et al 2017 that concluded that raised cortisol and stress may worsen cognitive decline.

## XanADu: Phase II Clinical Trial of Xanamem

- XanADu is a 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.
- First patient enrolled into the trial in Australia in May 2017 and now recruiting at 25 study sites across the USA, the UK and Australia
- 145 patients enrolled as at 10 September 2018 – representing 83% of the total 174 patients to be enrolled
- Successful Interim Analysis of first 50 evaluable patients completed by the Data Safety and Monitoring Board (DSMB) that confirmed the trial continue as planned with no modifications. Reaffirmed following a second DSMB review of 125 patients.
- Recruitment for the trial is on track to complete by Q4 2018 and top-line results are expected in second quarter 2019.

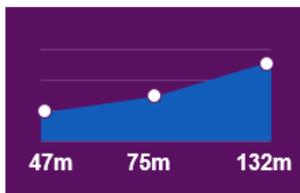
## Alzheimer's Disease

- As the leading cause of death in Australian women and second only to heart disease in Australia overall, Alzheimer's disease is emerging as the most significant health challenge of our time.
- There are more than 50 million Alzheimer's disease sufferers worldwide and the number is set to double every 20 years.
- The incidence of Alzheimer's disease increases significantly with age, affecting 1-in-3 individuals over the age of 85 years.
- Of the top ten fatal illnesses, Alzheimer's disease remains the only one that cannot be prevented, cured or effectively treated. More effective treatments for this devastating disease are urgently needed.



**30% OF 85 YEAR OLDS  
HAVE ALZHEIMER'S DISEASE**

1 in 3 seniors will die with Alzheimer's disease or other dementia



**NUMBERS WILL DOUBLE  
EVERY 20 YEARS**



**ONE PERSON  
EVERY 3 SECONDS**

Globally there were ~10m new cases of dementia in 2015



**TOTAL COST RISES TO  
US\$2 TRILLION BY 2030**

Dementia will become a trillion dollar disease by 2018

## Board of Directors



**Dr Geoff Brooke  
Chairman**

Clinically trained physician turned venture capitalist with over 30 years' experience in healthcare investment. He was the founder and managing director of two venture capital firms, Medvest Inc and GBS Venture Partners, which are viewed as one of APAC's premier healthcare venture investors. Dr Brooke has been a major investor, chairman or director of companies in the healthcare sector with a combined realised value of \$1.5bn. He is a medical graduate of the University of Melbourne and has an MBA from IMEDE (now IMD), Lausanne Switzerland.



**Dr Bill Ketelbey  
Chief Executive Officer**

Highly experienced and successful healthcare and pharmaceutical sector professional, with more than 30 years' experience, including senior roles with global pharmaceutical giant, Pfizer. He has a solid track record of product development over his years in the industry leading to the development of numerous market leading medicines. He is a Medical Graduate from South Africa, a Fellow of the Faculty of Pharmaceutical Physicians from the Royal College of Physicians in the United Kingdom and has an MBA from MGSM Australia.



**Dr Jason Loveridge  
Non-Exec Director**

Has been working in the biomedical technology industry for over 20 years and has extensive experience in developing clinical stage biotechnology companies. As a venture investor with JAFCO Nomura, he participated and invested in the start-up of over 24 companies in Europe, the United States and Israel.



**Dr. George Morstyn  
Non-Exec Director**

Dr Morstyn, a clinical oncologist by training has extensive experience in drug development and biotechnology. He was the Senior Vice President of Development and Chief Medical Officer at US biotech giant, Amgen. He helped pioneer the clinical development of the haemopoietic colony stimulating factors, the current gold standard treatment for cancer patients following chemotherapy. He holds a number of Board positions with leading research & development, VC and biotech organisations.