



## ASX ANNOUNCEMENT

### Actinogen updated investor presentation

**Sydney, 26 November 2018: Actinogen Medical (ASX: ACW, 'the Company')** is pleased to release an updated Investor Presentation. The presentation will be used to update shareholders, investors and brokers as part of a non-deal roadshow across Australia. The presentation outlines the key investment highlights, progress and outlook of Actinogen, and is available below.

#### Key Investment Highlights

- **Novel compound:** Actinogen's lead compound Xanamem has a mechanism of action targeting excess cortisol production in the brain. This cortisol hypothesis and its potential role in Alzheimer's disease has been validated by independent research
- **Targeted strategic market focus:** Alzheimer's disease addressable market worth >US\$7.5bn with unmet needs and potential upside
- **Advanced clinical stage asset:** Fully funded advanced clinical stage program with reported positive safety interim analysis of the XanADu Phase II Alzheimer's study, which has completed patient enrolment and is on track for results read-out in 2Q CY2019.
- **Potential value upside:** Well positioned to unlock further value in Alzheimer's and other indications, supported by significant big pharma interest
- **De-risked opportunity:** Initiated nine additional Xanamem-related studies – all studies fully funded and value-adding to Xanamem data-base. Further pipeline development opportunities under evaluation.
- **Experienced leadership and advisors:** Significant drug development and biotech investment experience guided by key opinion leading clinicians and drug discovery teams

ENDS

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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 has fully enrolled 186 patients from 25 research sites across Australia, the UK and the USA. Results are expected in Q2 2019. The trial is registered on [www.clinicaltrials.gov](http://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.**

# Investor Presentation

*A novel approach to treating cognitive impairment and Alzheimer's disease*

Dr. Bill Ketelbey: CEO & MD

November 2018



**Actinogen**  
Medical

# Contents

Executive summary

Xanamem

XanADu

Development pipeline

Outlook

Appendix

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# Executive summary

Key investment highlights

What is Xanamem

Development pipeline



# Key investment highlights

Actinogen is developing innovative treatments for cognitive impairment associated with neurodegenerative and metabolic diseases with an initial focus on Alzheimer's disease



## Novel compound

Differentiated with a novel mechanism of action  
First-in-class, brain penetrant, orally active, small molecule, inhibitor of 11 $\beta$ HSD1 enzyme  
Xanamem mechanism of action validated by independent research on the cortisol hypothesis



## Targeted strategic market focus

Initially focused on developing a treatment for Alzheimer's disease  
Addressable market worth >US\$7.5bn with unmet needs and potential upside  
Target indication underpinned by efficacy results from animal model studies



## Clinical stage asset

Advanced clinical stage program assessing Xanamem in Alzheimer's disease  
XanADu clinical trial fully enrolled, with results expected Q2 CY2019  
Positive safety interim analysis reported in XanADu



## Potential value upside

Well positioned to unlock further value  
Multiple potential indications  
Significant Big Pharma interest



## De-risked opportunity

Fully funded programs  
Additional Xanamem-related studies initiated  
Additional pipeline opportunities under evaluation



## Experienced leadership

Board and Management with significant drug development and investment experience, supported by key opinion leaders and Xanamem discovery team

# Xanamem

Actinogen's lead compound, Xanamem, is a novel drug designed to inhibit the production of cortisol in the brain with the potential to treat cognitive impairment and Alzheimer's disease



## Well researched

In clinical stage development, with over 15 years of R&D completed, and A\$40m invested to date



## Well tolerated

Dosed >150 patients with acceptable clinical safety, toxicity and PK / PD<sup>1</sup> profile



## Differentiated mechanism of action

Highly selective inhibitor of the 11 $\beta$ HSD1 enzyme in the brain which reduces excess cortisol production



## Validated

Symptomatic and disease modifying effects (in vivo) and effective demonstration of cortisol hypothesis (in humans)



## Well protected

Composition of matter IP coverage  $\geq$  2031, patents granted in all major markets

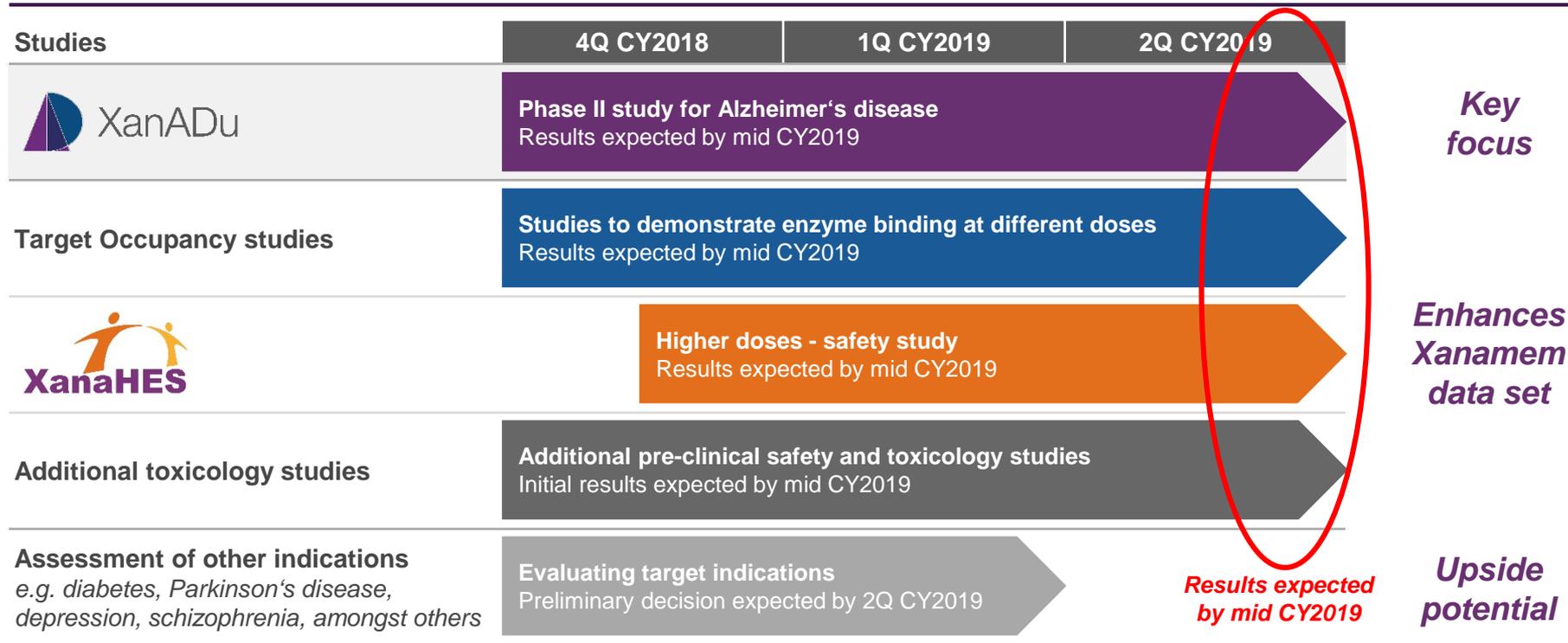


**Xanamem is a novel, first-in-class, potent, orally bioavailable and brain-penetrant 11 $\beta$ HSD1 inhibitor**

1. PK / PD: pharmacokinetic / pharmacodynamic

# Clinical development and milestones

Well progressed Phase II clinical trial (XanADu) underpinned by additional value-adding studies and an exciting Xanamem pipeline for other potential indications



# Xanamem

The cortisol hypothesis

Validation of the cortisol hypothesis

Mechanism of action

Xanamem research and development

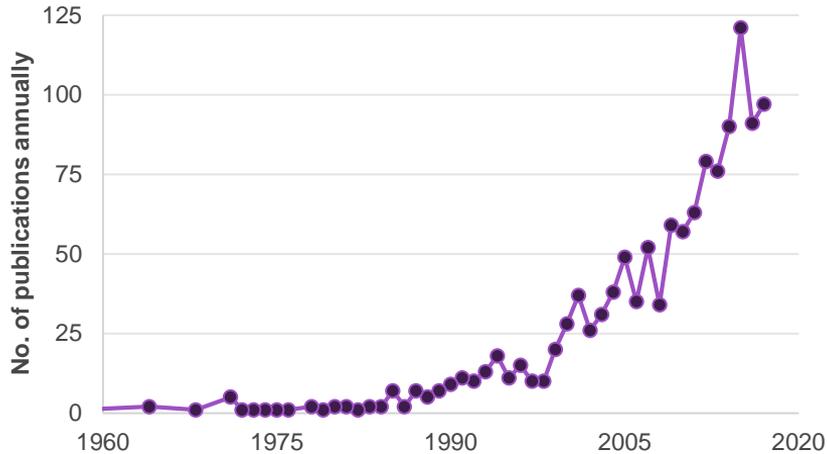
*Xanamem has been developed in response to evidence that there is a strong association between chronically raised cortisol levels in the blood and in the brain, and the development and progression of Alzheimer's disease*

*Xanamem is underpinned by over 15 years of R&D with A\$40m invested in development*

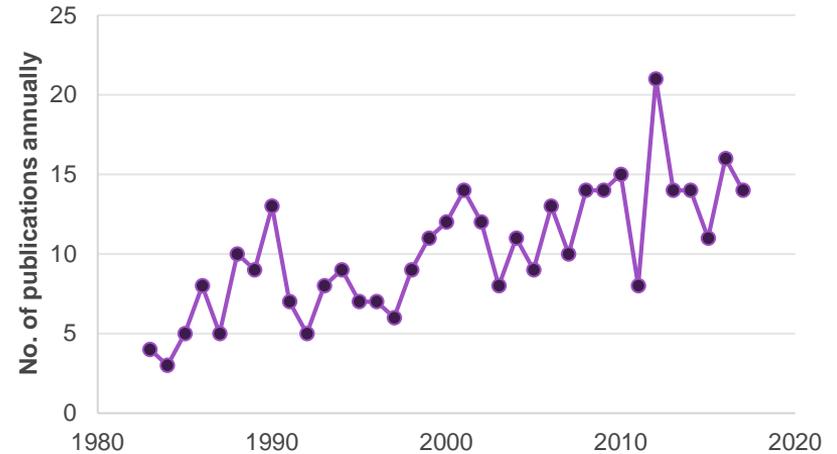
# The cortisol hypothesis

A growing body of literature showing an association between cortisol and cognitive impairment

## Medical publications: “Cortisol and Cognition”<sup>1</sup>



## Medical publications: “Cortisol and Alzheimer’s”<sup>1</sup>



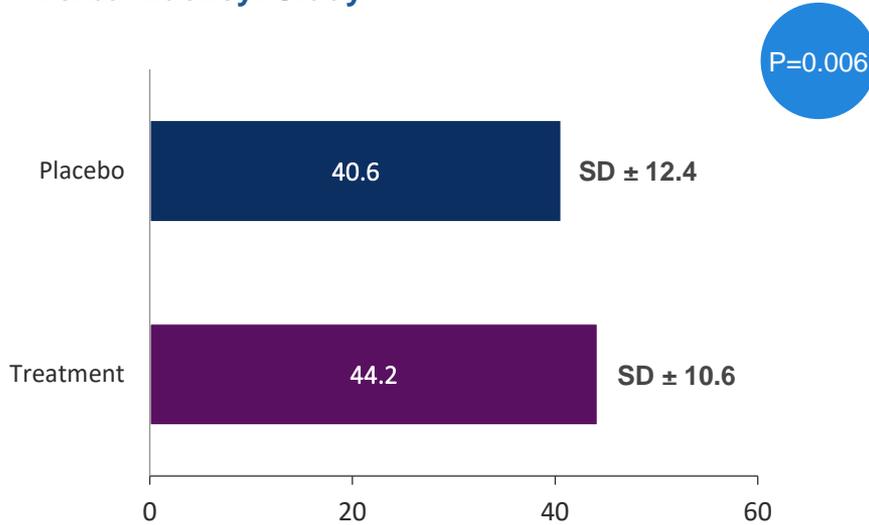
Actinogen is well positioned to leverage the growing significance of the relationship between cortisol and cognition

1. PubMed keyword search

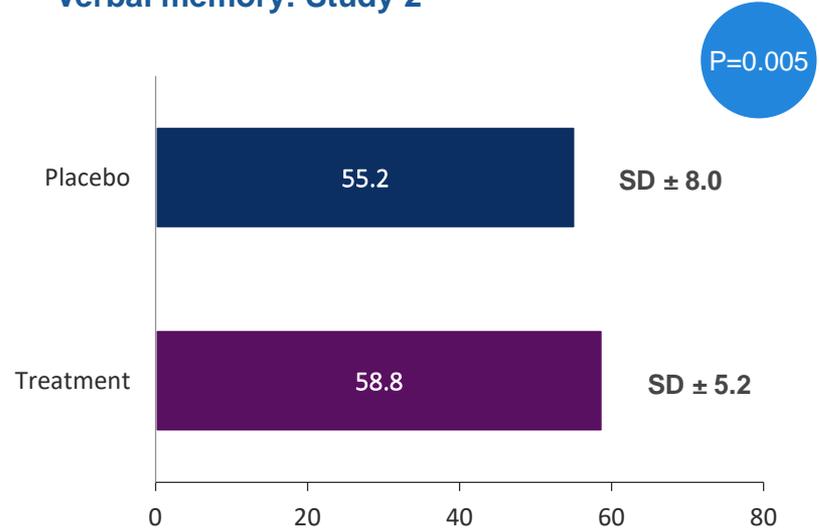
# Human pilot studies validate the cortisol hypothesis

Two pilot studies indicated inhibiting cortisol production in the brain improves cognitive function in healthy elderly men and subjects with Type 2 diabetes (11 $\beta$ -HSD1 inhibition with carbenoxolone – no longer commercially available)<sup>1,2</sup>

## Verbal fluency: Study 1<sup>1</sup>



## Verbal memory: Study 2<sup>2</sup>



**Significant improvement in verbal fluency and verbal memory after only 4 and 6 weeks of treatment<sup>1,2</sup>**

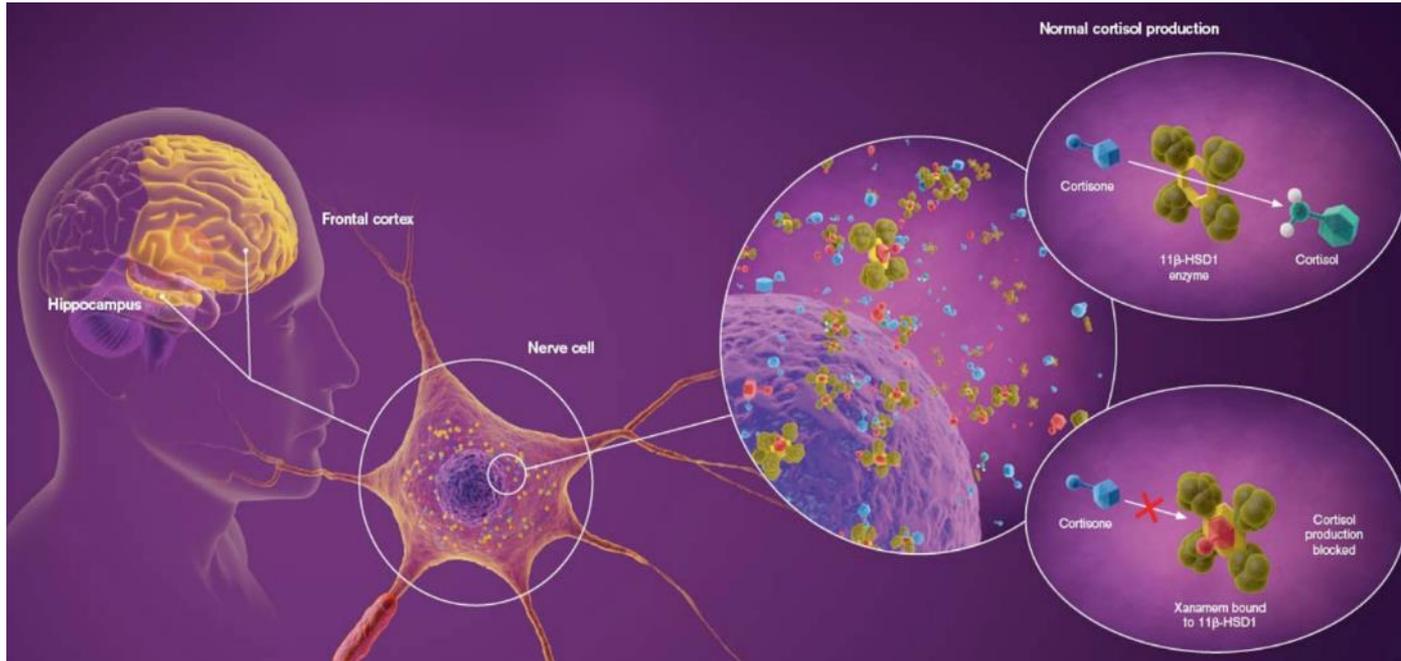
Source: 11 $\beta$ -Hydroxysteroid dehydrogenase inhibition improves cognition function in healthy elderly men and type 2 diabetics Sandeep et al., 2004 PNAS (vol. 101, no. 17) 6734-6739

1. Study 1: 10 healthy subjects Age 55-75 (Mean Age = 65.5  $\pm$  5.5) receiving 100mg carbenoxolone 3 times daily compared to placebo for 4 weeks, in a double-blind randomised crossover study
2. Study 2: 12 type 2 diabetics (m=9; f=3) Age 52-70 (Mean Age = 60  $\pm$  4.9) receiving 100mg carbenoxolone 3 times daily compared to placebo for 6 weeks, in a double-blind randomised crossover study.

# Mechanism of action

Xanamem inhibits the activity of the  $11\beta$ HSD1 enzyme, reducing the production of cortisol in the brain

## Overview

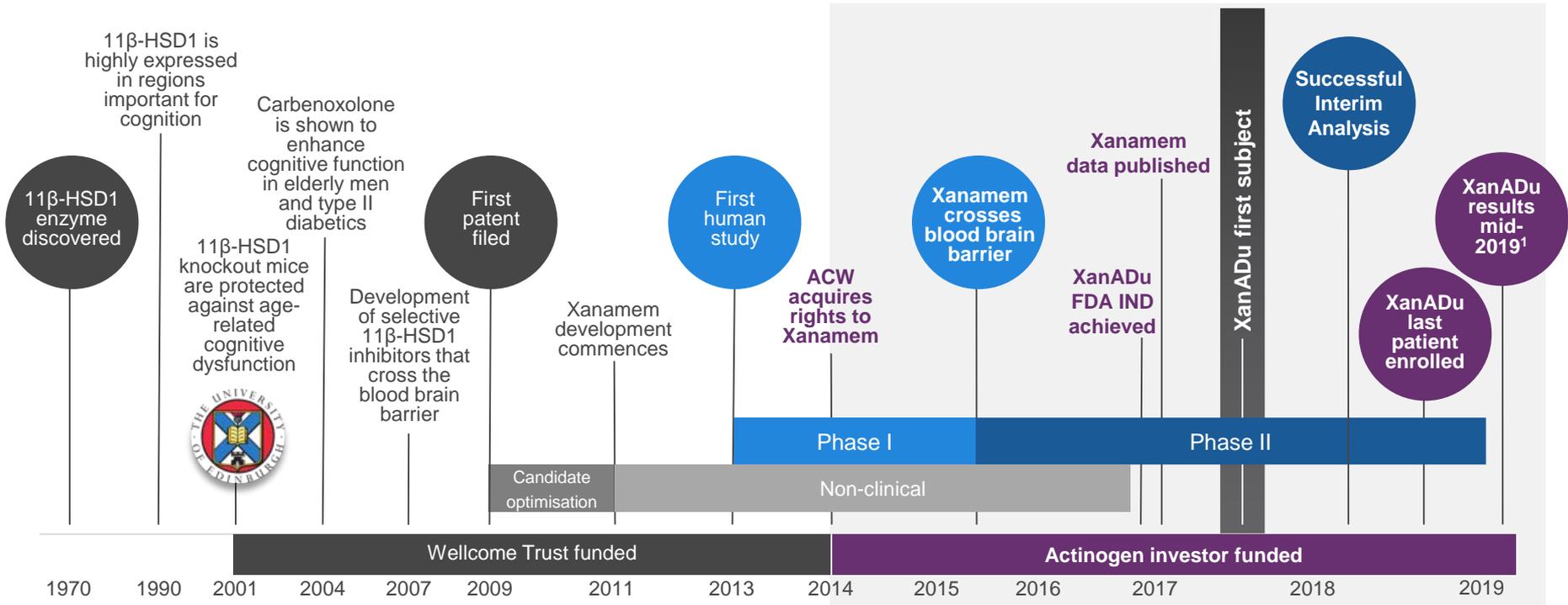


**Xanamem has potential in other diseases with possible cortisol induced cognitive impairment**

- **Alzheimer's disease (key focus)**
- Diabetes
- Depression
- Schizophrenia
- Parkinson's disease
- Down syndrome
- And more...

# Xanamem research and development

Xanamem is underpinned by significant R&D investment and clinical progress over the last 15 years



1. Estimated timing of key milestones

# XanADu

Efficacy considerations

XanADu Phase II clinical trial and milestones

Interim analysis

Favourable market dynamics

Competitive landscape

Big Pharma interest

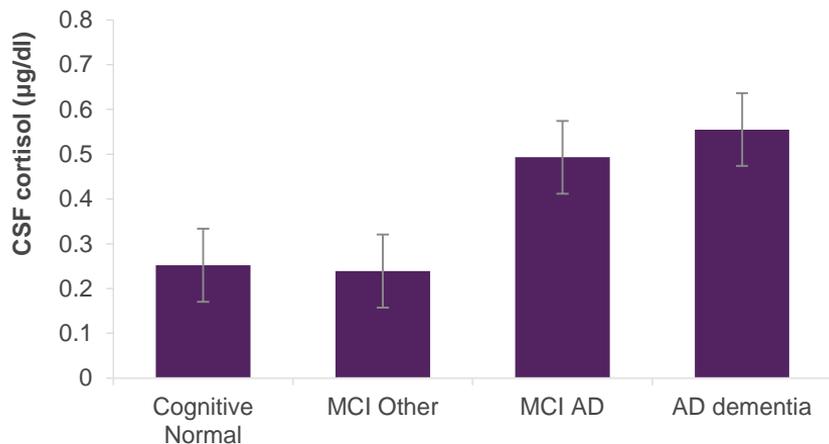
*XanADu is a global Phase II double-blind, randomised, placebo-controlled study assessing the efficacy and safety of Xanomem in patients with mild Alzheimer's disease*

*Enrolment complete with results expected in Q2 CY2019*

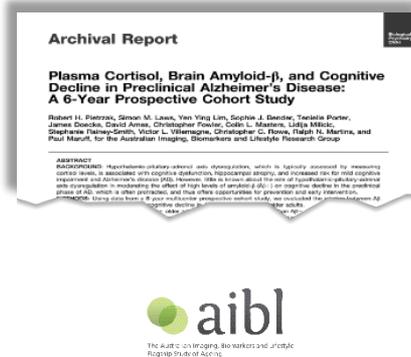
# Alzheimer's strategic focus underpinned by medical research

A growing body of medical literature supports the association between cortisol and Alzheimer's disease

## Raised cortisol associated with Alzheimer's disease<sup>1</sup>



## Supported by growing body of medical literature



Many studies support the association between **cortisol and Alzheimer's disease development and progression<sup>2</sup>**

A recent AIBL<sup>3</sup> study provided compelling evidence that elderly subjects with **higher plasma cortisol levels are at much greater risk of developing Alzheimer's disease**

This study<sup>3</sup> also demonstrated that **50% of those aged 65+ have raised cortisol levels**

**Research suggests that lowering cortisol levels may prevent the development / progression of Alzheimer's disease**

1. MCI: mild cognitive impairment; AD: Alzheimer's Disease
2. Recent studies also support the association between cortisol and cognitive impairment associated with neuroendocrine dysfunction
3. Plasma Cortisol, Brain Amyloid- $\beta$ , and Cognitive Decline in Preclinical Alzheimer's Disease: a 6-Year Prospective Cohort Study. Pietrzak et al., 2017. Biological Psychiatry: Cognitive Neuroscience and Neuroimaging 2:45-52

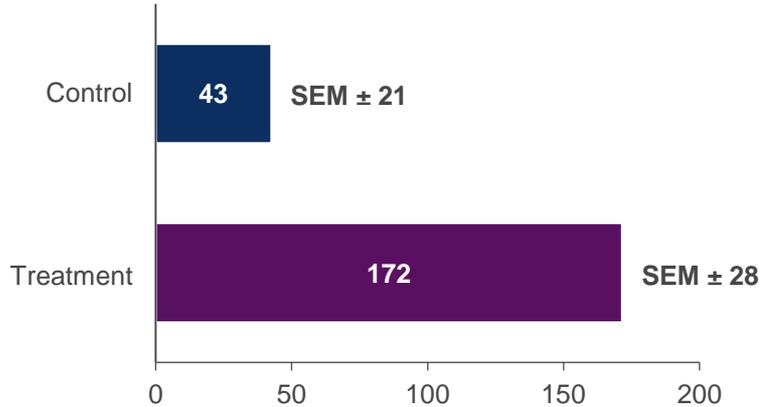
# Efficacy underpinned by animal model

Significant and rapid symptomatic and disease modifying effects demonstrated with significant improvement in cognition within one month, continuing out to 41 weeks

## Cognition: 28 days treatment

Latency to enter dark compartment (seconds)

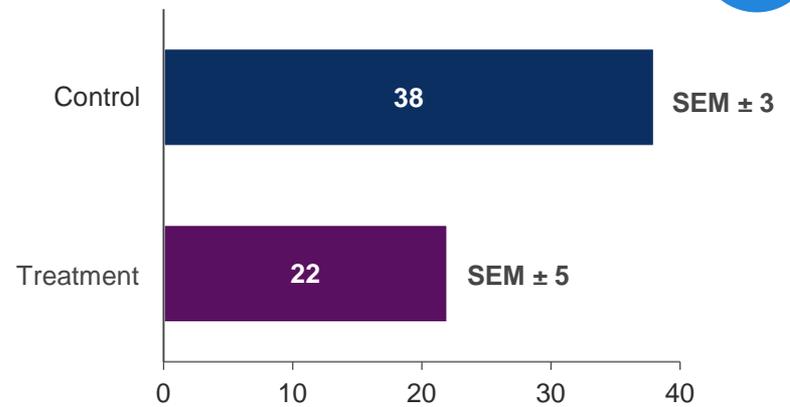
P=0.004



## Amyloid clearance: 28 days treatment

Number of Plaques / brain area (total)

P=0.01



Results from the animal model studies underpin the significant potential of the Xanamem in Alzheimer's

# XanADu Phase II clinical trial

Double-blind, randomised, placebo-controlled study to assess the efficacy and safety of Xanamem in subjects with mild Alzheimer's disease<sup>1</sup>



Xanamem treatment course  
**12 weeks**



**186** patients with mild Alzheimer's disease (enrolment complete)<sup>2</sup>



**10mg daily**  
Xanamem for 12 weeks (vs. placebo)



Trial conducted at 25 sites in  
**AUS, USA and UK**

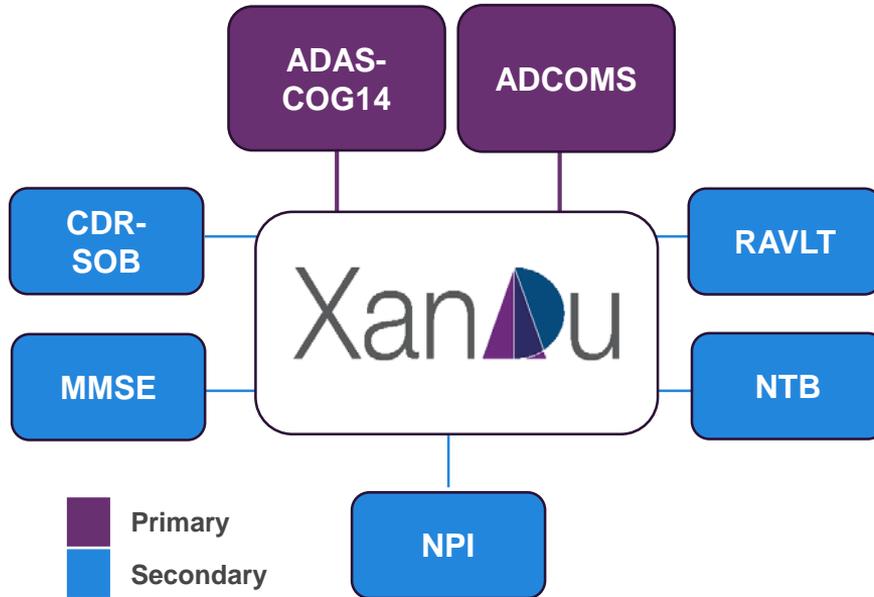
**Fully funded study, fully enrolled with results due in 2Q CY2019**

1. Study registered on Clinicaltrials.gov: NCT02727699  
2. Fully enrolled 24 November 2018

# XanADu endpoints

XanADu's primary and secondary endpoints are the standard cognitive outcome measures used in Alzheimer's disease research globally

## XanADu: primary and secondary endpoints<sup>1</sup>



## Endpoints inform further development

XanADu endpoints are standard and validated assessments used in Alzheimer's disease research globally

While overlapping in many areas, each endpoint measures different discrete domains of cognition, and function in some.

XanADu is designed to identify the cognitive domains most sensitive to Xanadem's potential efficacy. Results will inform future development

1. ADAS-COG14: Alzheimer's Disease Assessment Scales – Cognitive Subscale Score (version 14); ADCOMs: AD COMposite Scores (composite data derived from ADAS-COG14, CDR-SOB and MMSE); CDR-SOB: Clinical Dementia Rating Scale – Sum of Boxes; RAVLT: Rey Auditory Verbal Learning Test; MMSE: Mini-Mental Status Examination; NTB: Neuropsychological Test Batteries; NPI: Neuropsychiatric Inventory

# Interim analysis

Positive recommendations from the DSMB<sup>1</sup> reflect confidence in the safety of the drug and the design of the XanADu study. Supports the broader development of Xanamem



## First DSMB review (23 May 2018)

- Evaluation of 50 patients' safety and efficacy data reviewed by an independent DSMB<sup>2</sup>
- **Recommendation by DSMB to continue XanADu without modification**

## Second DSMB review (22 August 2018)

- Evaluation of 125 patients' safety data
- **Reaffirmed continuation of XanADu without modification**

## Third DSMB review

- Expected to be completed in early CY2019



**Positive DSMB recommendations underpin the XanADu study and further development of Xanamem in other indications**

1. DSMB: Data Safety Monitoring Board

2. Evaluable patients to have completed the study – note: an additional 37 patients' safety data was also included in the analysis (data was from patients still ongoing in the study)

# Market dynamics of Alzheimer's disease

Presents a compelling commercial opportunity for Actinogen to target initially

## Substantial target market with significant upside<sup>1</sup>

| Cortisol-high, cognition normal | Subjective memory decline | Cognitive and functional decline fulfilling dementia |          |        |
|---------------------------------|---------------------------|--|----------|--------|
| At-risk                         | Prodromal                 | Mild   | Moderate | Severe |
| ~25.0m<br>(50% over 65 yrs)     | ~4.0m                     | ~1.5m  | ~1.7m    | ~2.5m  |

Upside potential for earlier use      Key focus

  
**>US\$7.5bn**

Target annual peak sales (mild AD)<sup>2</sup>

Source: Drugs.com, Biogen, Roche, Datamonitor, Alzheimer's Association

1. Target market statistics based on the current US treatment landscape

2. Base case annual peak sales assumes: (1) Launch: US 2024, EU5, JP and ROW 2025; (2) Penetration: 30% of mild AD market in 5 years (i.e. ~470,000 in the US); (3) Pricing: US – US\$19/day (gross), ROW: 50% of US price

## Underpinned by favourable market dynamics

- ✓ Targeting **large addressable** markets (US, EU5, JP)
- ✓ All **currently approved drugs are symptomatic treatments** (that do not affect disease progression) **providing limited benefit**
- ✓ Treatment **prices are robust** (despite generic competition) – with users paying for modest clinical efficacy

## US branded products (gross price)



US\$10/day



US\$8/day



US\$18/day

# Development pipeline of other cognitive enhancers

Xanamem is one of the most advanced cognitive enhancers currently in development<sup>1</sup>

| Company  | Drug candidate | Mechanism                          | Phase (status)            | Upcoming milestones <sup>2</sup>  |   |
|--|----------------|------------------------------------|---------------------------|---|---|
|  Actinogen Medical                   | Xanamem        | 11 $\beta$ HSD1 inhibitor          | II (ongoing)              | April 2019  | Results available by mid CY2019<br>Estimated primary completion April 2019            |
|  SUVEN                               | SUVN-502       | 5HT6 antagonist                    | II (ongoing*)             | April 2019  | Estimated primary completion<br>*Target to complete patient recruitment by end CY2018 |
|  EIP                                 | Neflamapimod   | p38 MAPK inhibitor                 | II (ongoing)              | June 2019   | Estimated primary completion  |
|  Neurotrope Bioscience               | Bryostatin 1   | Protein Kinase C Epsilon activator | II <sup>3</sup> (ongoing) | July 2019   | Estimated primary completion <sup>3</sup>   |
|  biohaven                            | BHV4157        | Na <sup>+</sup> channel blocker    | II / III (ongoing)        | January 2020  | Estimated primary completion  |
|  Boehringer Ingelheim                | BI425809       | Glycine transport inhibitor        | II (ongoing)              | August 2020   | Estimated primary completion  |
|  GreenValley                         | GV-971         | Unknown                            | III**                     | **Phase III trial conducted in China successfully completed September 2018 / international trial is planned |   |
|  anavex                              | Anavex 2-73    | SIGMAR1 agonist                    | IIa                       | Initiation of Phase IIb / III announced in August 2018 – no evidence in clinical trial registries           |   |
|  Allergan<br><small>HEPTARES</small> | HTL0018318     | M1 agonist                         | II***                     | ***Phase II trial placed on hold in September 2018 prior to initiation due to unexpected primate toxicology |   |

- Some programs that may be relevant are not included due to lack of development (e.g. Sinphar Pharmaceuticals: STA-1; Allergan: CPC-201) or because they are more commonly referred to as disease modifying therapies (e.g. Cognition Therapeutics: CT1812; Daehwa Pharma: DHB1401; Agene Bio: AGB101)
- Estimated primary completion based on clinicaltrials.gov information – unless additional information is available
- Completed Phase II in May 2017 with equivocal results. New Phase II initiated in June 2018 with primary completion expected in July 2019

# Comparison of Alzheimer's disease treatments

Actinogen's novel treatment for Alzheimer's disease is clearly differentiated and may be used in combination with existing cognitive enhancers and potential anti-amyloid drugs (currently in development)

## Overview

|   | Xanamem               | Cognitive enhancers   | Anti-amyloid drugs                          |
|---|-----------------------|---|---|
| Status                                  | In development        | In market <sup>1</sup>  | In development                              |
| Mechanism of action                     | Targets cortisol      | AChE <sup>2</sup> inhibitors, NMDA <sup>2</sup> receptor antagonist | Anti-amyloid                                |
| Administration                          | Oral (small molecule) | Oral (small molecule)   | Injectable IV / SC <sup>3</sup> (biologics) |
| Evidence of disease modification        | ✓ <sup>4</sup>        | ✗   | ✓   |
| Duration of effect (>8 months)          | ✓ <sup>4</sup>        | ?   | ✓   |
| Potential to treat 'at risk' patients   | ✓                     | ✗   | ✓   |
| Applicable to other cognitive disorders | ✓                     | ✗   | ✗   |
| No SAEs identified                      | ✓                     | ✗   | ✗   |
| No biomarker required                   | ✓                     | ✓   | ✗   |
| Low cost of goods                       | ✓                     | ✓   | ✗   |

**Xanamem may support potential combination therapy, with existing treatments and other drugs currently in development, to improve patient outcomes**

- Approved cognitive enhancers have different mechanism of action and varying degrees of benefit and duration
- Despite promising data, anti-amyloid therapy has high costs, compliance challenges and requires IV / SC administration

1. Analysis excludes other cognitive enhancers currently in development  
 2. AChE: acetylcholinesterase; NMDA: N-methyl-D-aspartate  
 3. IV: intravenous; SC: subcutaneous  
 4. Evidence of disease modification and duration based on animal model studies

# Significant headwinds for BACE inhibitor development

Significant opportunity for Xanamen development, with recent study data indicating that anti-amyloid may not be efficacious as initially expected

## Overview<sup>1</sup>

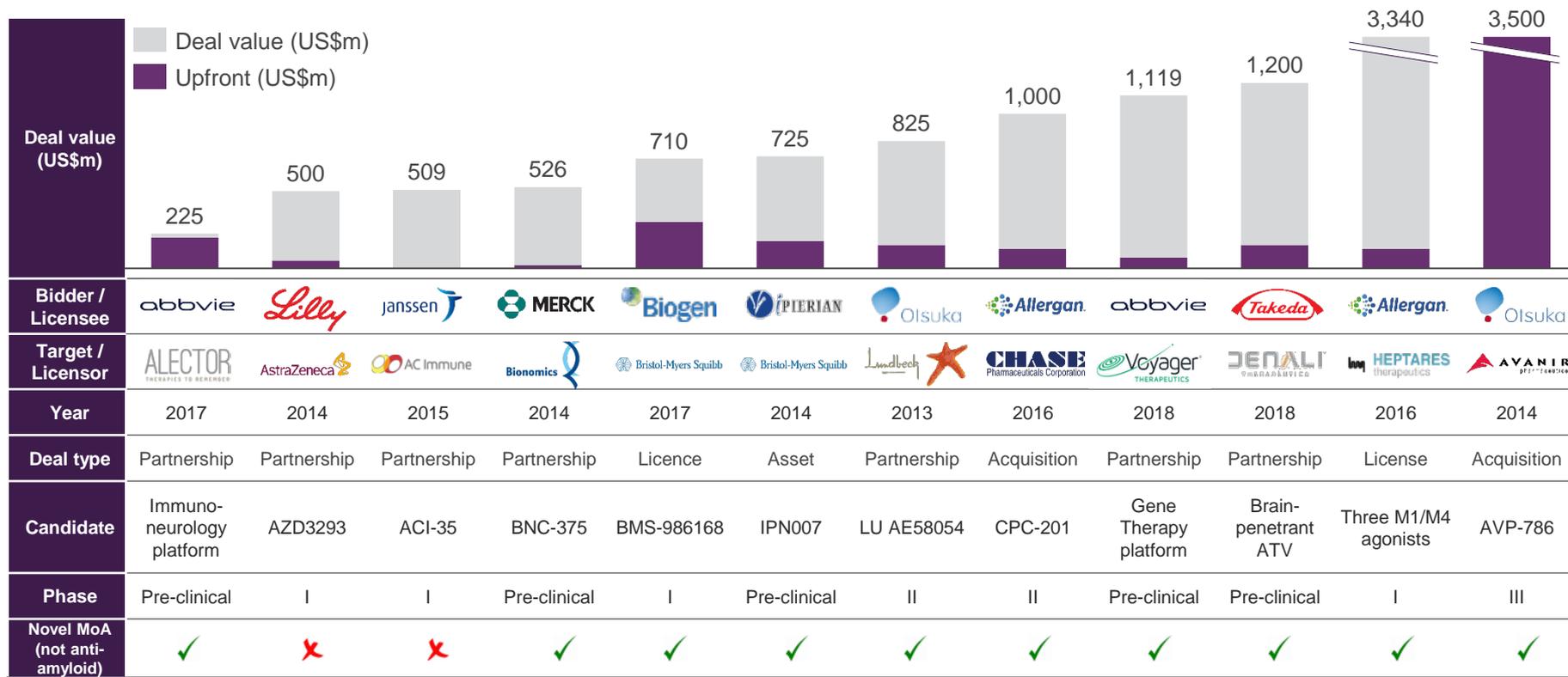
- Results indicate **potent anti-amyloid activity has not translated to substantial cognitive benefit**
- Trending / actual cognitive worsening was observed** across multiple compounds

| Company   | Compound (Phase)<br>Status                      | Population             | CSF A $\beta$<br>lowering range | Cognition comments   |
|---|---|------------------------|---------------------------------|--|
|    | Verubecestat (III)<br>Stopped for futility      | Mild moderate          | 60% - 80%                       | <b>Early:</b> Trend for cognitive worsening<br><b>Overall:</b> No difference                             |
|   |   | Prodromal              | 60% - 80%                       | <b>Early:</b> Cognitive worsening<br><b>Overall:</b> Cognitive worsening                                 |
|   | Lanabecestat (III)<br>Stopped for futility      | Prodromal – mild       | 55% - 75%                       | <b>Early:</b> Trend for cognitive worsening<br><b>Overall:</b> Data not locked                           |
|   |   | Mild                   | 55% - 75%                       |  |
|    | Atabecestat (III)<br>Stopped for hepatic safety | Cognitively unimpaired | 50% - 82%                       | <b>Early:</b> Trend for cognitive worsening - Cognitive worsening<br><b>Overall:</b> Dosing discontinued |
|    | LY3202626 (II)<br>Stopped for futility          | Mild dementia          | 70% - 90%                       | <b>Early:</b> Trend for cognitive worsening - Equivocal<br><b>Overall:</b> Dosing discontinued           |
|   | Elenbecestat (III)<br>Ongoing                   | Mild moderate          | ~60%                            | <b>Early:</b> Trends for improvement<br><b>Overall:</b> General trends for improvement                   |
|   | CNP520 (II/III)<br>Ongoing                      | Cognitively unimpaired | 20% - 90%                       | <b>Early:</b> Not applicable<br><b>Overall:</b> No difference  |

1. Information presented at CTAD (Clinical Trials on Alzheimer's Disease) Conference held in Barcelona in October 2018

# Big Pharma interest

Global Big Pharma demonstrating strong M&A interest in acquiring or partnering with companies and licensing novel mechanism of action assets with Alzheimer's disease as the lead/key indication



# Development pipeline

Additional Xanamem studies

Other potential indications



# Additional value-adding Xanamem studies

Actinogen is focused on completing nine key additional studies to enhance the Xanamem data set, which can also be potentially leveraged into other indications



## Target occupancy study

Aims to accurately demonstrate the effect different doses of Xanamem has on inhibiting the 11 $\beta$ -HSD1 enzyme in the human brain and to optimise Xanamem dosing

Currently underway with  
**results expected in 2Q CY2019**



## Higher dose safety study

To expand the safety data-set for Xanamem and explore potential for higher doses of the drug to be used in Alzheimer's and other indications

XanaHES study initiated with  
**initial results expected in 2Q  
CY2019**



## Further safety / toxicology studies

To allow for longer treatment periods, as routinely required by global regulatory authorities in the development of any drug

Additional studies initiated with  
**results expected in 6-12 months**

**Actinogen is fully funded to complete these additional Xanamem studies**

# Other potential indications

Actinogen is also focused on developing Xanamem in other indications to optimise shareholder value

## Overview



Multiple potential target indications beyond Alzheimer's represent significant market expansion opportunities



Growing literature on cortisol-induced cognitive impairment associated with many conditions



Actinogen undertaking a detailed review to identify best additional target indications



Development program leverages existing data from earlier clinical programs

## Possible target indications

Depression

Diabetes

Schizophrenia

Parkinson's disease

POCD & TBI <sup>1</sup>

Post-MI, PVD  
Stroke & HT <sup>2</sup>

Down syndrome

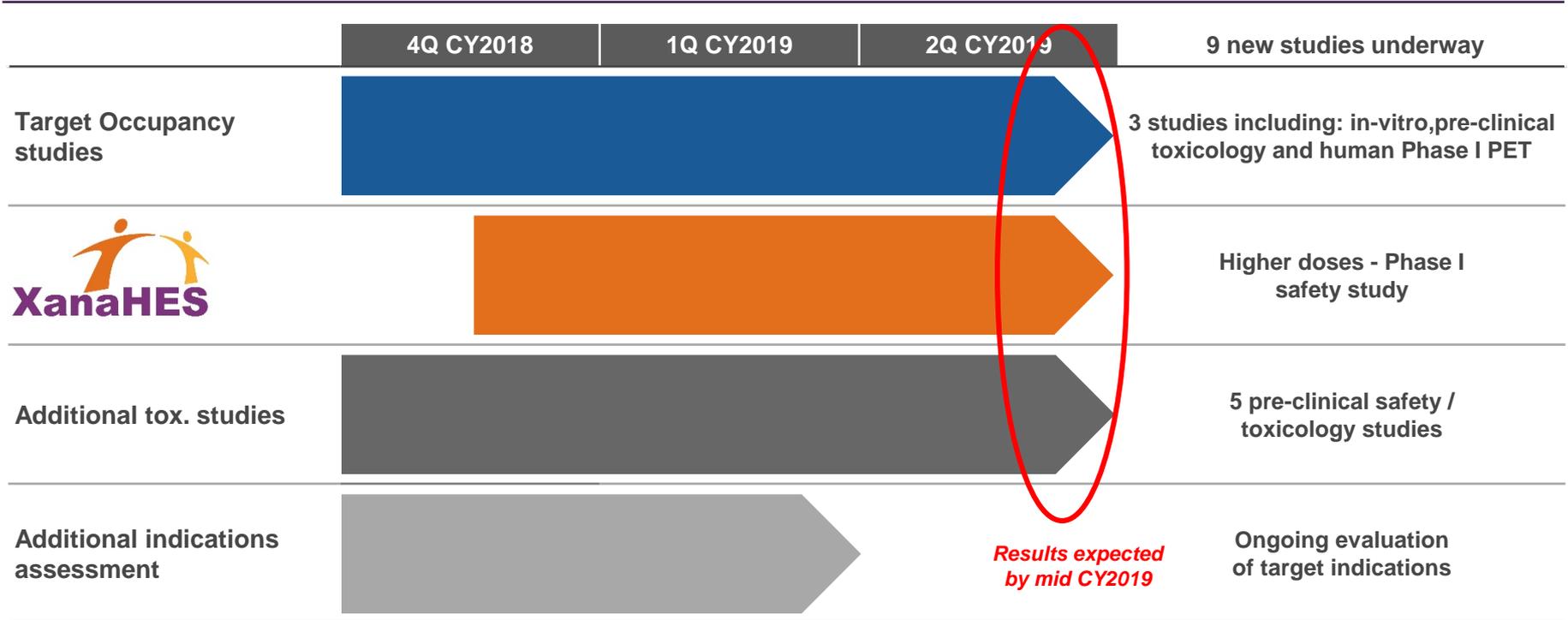
And more..

**Preliminary assessment currently underway to identify high priority indications for development**

1. Post-operative cognitive decline & Traumatic brain injury  
2. Post-myocardial infarction, Peripheral vascular disease & Hypertension (peripheral & intra-cranial)

# Development pipeline

Multiple studies are currently underway to enhance the Xanamem data set, with results expected in 2Q CY2019, and preliminary decision on assessment of other indications planned for 1Q CY2019





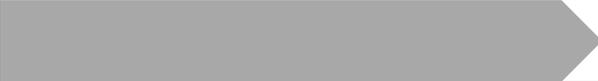
# Outlook

Upcoming catalysts

Key investment highlights

# Upcoming catalysts

Significant upcoming milestones across first half 2019

| Studies  | 4Q CY2018  | 1Q CY2019  | 2Q CY2019 | Key catalysts  |
|--|--|--|-----------|--|
|  XanADu  |  |  |           | Results expected to be available by mid CY2019                       |
| Target occupancy studies   |  |  |           | Results expected to be available by mid CY2019                       |
|  XanaHES |  |  |           | Results expected to be available by mid CY2019                       |
| Additional tox. studies  |  |  |           | Initial results expected by mid CY2019                               |
| Additional indications assessment  |  |  |           | Preliminary decision expected by 2Q CY2019                           |
| Strategic discussions  |  |  |           | Ongoing discussions with potential commercial and strategic partners |

*Results expected by mid CY2019*

**Actinogen is fully funded to complete XanADu and other key studies**

# Proactive strategic business development

Continued strategic engagement with prospective development and commercial partners in the lead up to XanADu results

Focus on progressing collaboration and commercial discussions with prospective big pharma partners, and presenting to, and educating the scientific community

## Planned H1 CY2019 Partnering and Investment Conference Attendance

JP Morgan Healthcare Conference (January, San Francisco)



SACHS Neuroscience (January, San Francisco) – Oral Presentation



BIO-Europe Spring 2019 (March, Vienna)



BIO 2019 (June, Philadelphia)

## Planned CY2019 Scientific Conference Attendance

AD/PD 2019 (March, Lisbon)



AAIC 2019



CTAD 2019

# Key investment highlights

Actinogen is developing innovative treatments for cognitive impairment associated with neurodegenerative and metabolic diseases with an initial focus on Alzheimer's disease



## Novel compound

Differentiated with a novel mechanism of action  
First-in-class, brain penetrant, orally active, small molecule, inhibitor of 11 $\beta$ HSD1 enzyme  
Xanamem mechanism of action validated by independent research on the cortisol hypothesis



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## Clinical stage asset

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## Potential value upside

Well positioned to unlock further value  
Multiple potential indications  
Significant Big Pharma interest



## De-risked opportunity

Fully funded programs  
Additional Xanamem-related studies initiated  
Additional pipeline opportunities under evaluation



## Experienced leadership

Board and Management with significant drug development and investment experience, supported by key opinion leaders and Xanamem discovery team

# Appendix

Corporate overview

Senior leadership

Advisory boards

IP protection



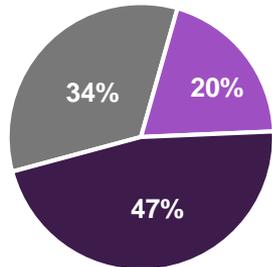
# Corporate overview

Actinogen is an ASX-listed biotech company focused on innovative approaches to treating cognitive impairment associated with chronic neurodegenerative and metabolic diseases

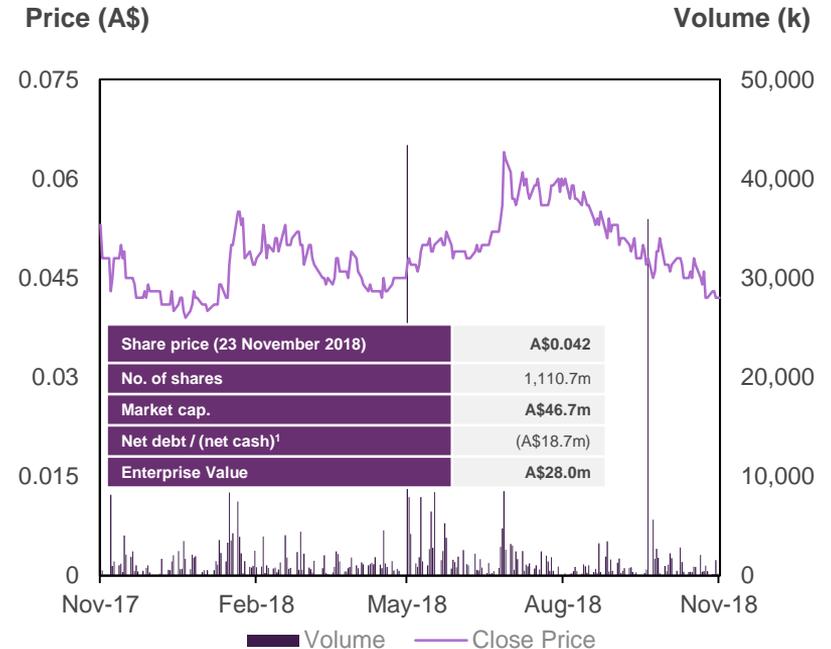
## Overview

- Actinogen is developing Xanamem, a novel therapy for Alzheimer's disease with significant market potential
- Actinogen is completing a Phase II double-blind, 12 week, randomised, placebo-controlled study (XanADu) in Alzheimer's disease
- XanADu is designed to assess the safety, tolerability and efficacy of Xanamem in subjects with mild Alzheimer's disease

## Key shareholding metrics



## LTM share price performance and trading metrics



Note: 1: Net cash of A\$18.7m incorporates a A\$3.2m R&D rebate received in October and the Company's September quarter cash balance of A\$15.6m

# Substantial Institutional investment in Actinogen\*



Recognises potential and endorses strategy

Positive interim analysis catalyses significant \$15M investment through Placement

Leading investors enter register:

- USA specialist biotech investor **Biotechnology Value Fund L.P.**
- Australian institutions **Platinum Investments Management** and **Australian Ethical Investment**

Strong endorsement - Placement price represents a **13.4% premium** to the 5-day VWAP

**BVF cornerstones Placement** - largest shareholder with a **19.97% holding**

Funding to advance the development plan through additional Xanamem studies.



\* Announced 23 May 2018

# Board of Directors

Commercially experienced and globally recognised leadership team with decades of experience in drug development and biotech investment



**Dr. Geoff  
Brooke**

*Chairman*

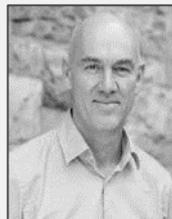
- **30+ years experience** in the healthcare investment industry
- Founder and MD of Medvest Inc and GBS Venture Partners
- MBBS (University of Melbourne); MBA (IMEDE, Switzerland)



**Dr. Bill  
Ketelbey**

*CEO & MD*

- **30+ years experience** in the healthcare, biotech and pharmaceutical industries
- Formerly senior international roles at Pfizer; Director at the Westmead Institute of Medical Research
- MBBCH (University of the Witwatersrand); FFPM; MBA (Macquarie); GAICD



**Dr. Jason  
Loveridge**

*Non-executive  
director*

- **20+ years experience** in biomedical technology industry
- Venture investor with JAFCO Nomura; Non-Executive Director of Resonance Health (ASX: RHT); CEO of 4SC AG
- B.Sc (UNSW), PhD (University of Adelaide) FRSM



**Dr. George  
Morstyn**

*Non-executive  
director*

- **25+ years experience** in biotechnology investment
- Board member of Cancer Therapeutics, Symbio and Biomedvic; Former Senior VP and SMO at Amgen
- MBBS (Monash University); PhD (Walter and Eliza Hall Institute); FRACP; MAICD



# Advisory Boards

World's premier academics involved in the development of Xanamem and as a novel treatment for Alzheimer's disease

## Xanamem™ Clinical Advisory Board

*Positions Xanamem at the forefront of Alzheimer's drug development*



**Prof. Craig Ritchie**  
*Chair*



THE UNIVERSITY  
of EDINBURGH



**Prof. Colin Masters**  
*AO*



The Royal  
Melbourne Hospital



**Prof. Jeffrey Cummings**



**Prof. Jonathan Seckl**



THE UNIVERSITY  
of EDINBURGH



**Prof. Brian Walker**



Newcastle  
University



**Prof. Scott Webster**



THE UNIVERSITY  
of EDINBURGH

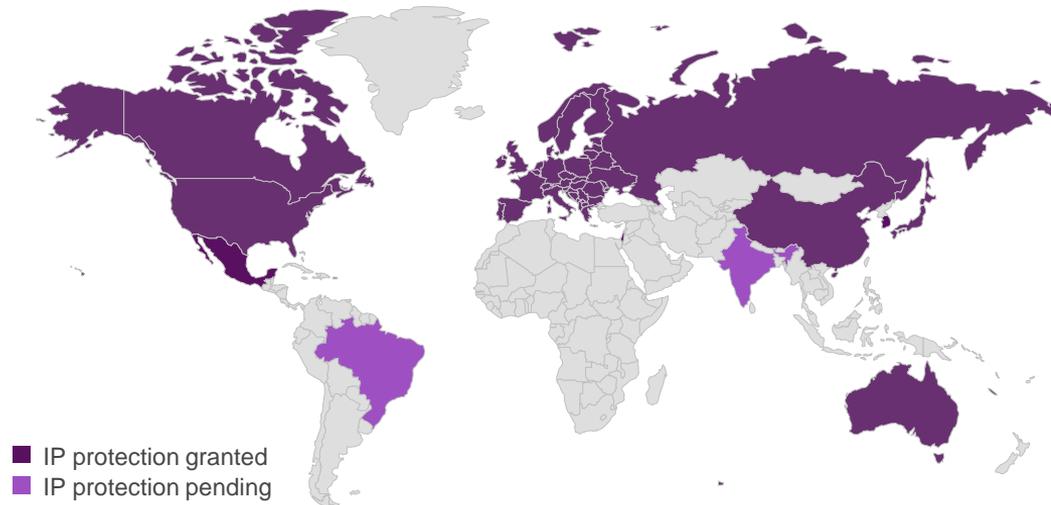
## Scientific Advisory Board

*Combining deep understanding of cortisol, 11 $\beta$ -HSD1 and drug discovery*

# IP protection

Actinogen maintains a broad granted composition of matter patent estate, extending to at least 2031, with key patents granted in all major target markets

## Geographic patent overview



- Actinogen's patent portfolio **covers a broad range of neurological and metabolic diseases** including Alzheimer's disease
- Xanamem **patents granted in key markets** that account for over 90% of the global Alzheimer's market
- Actinogen's patent portfolio **extends to at least 2031**

**>90%** of the global Alzheimer's disease market

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