

Actinogen Medical AGM

Dr Bill Ketelbey CEO

November 29th 2017



Actinogen
Medical

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2017 highlights

Selected highlights 2017



Announcements on
29 November 2017

Capital Raise

- Successfully raised \$5.28m in a placement to sophisticated investors
- Subscription of 132m fully paid ordinary shares at \$0.04 per share
- Proceeds fully fund XanADu

XanADu interim analysis

- Efficacy and safety data on first 50 completed patients
- Data available Q2 2018 – a year earlier than full study results
- Data may provide an early indication of the potential on Xanamem in Alzheimer's disease

Selected highlights 2017

XanADu

- XanADu regulatory approval – FDA (Jan.), MHRA (Feb.), TGA (March)
- XanADu first patient treated in Australia in May 2017, June in USA and August in UK
- Enrolment to date 44, on track for Q4 2018 last patient, with Q2 2019 top-line results
- First XanADu patient completes in September – 6 now completed

Key data publications/presentations

- CTAD – San Diego Dec 2016
- Publication of Xanamem human trial data - Webster et al Jan 2017
- Publication of the AIBL data (Pietrzak et al Feb 2017), and Nature cortisol data (Stuart et al June 2017)



Selected highlights 2017

Actinogen Board



Dr. Geoff Brooke
Chairman



Dr. George Morstyn
Non-Executive Director
(commences 1 Dec 2017)



Dr. Bill Ketelbey
CEO and Managing Director

Recruitment of Dr. Geoff Brooke as Chairman
and Dr. George Morstyn as NED from
December 1, 2017



Dr. Bill Ketelbey
appointed as NED
on WIMR Board



Selected highlights 2017



BD and IR

- Significant media – *Channel 9, Newscorp* etc.
- Pharma Partnering - participated in BIO International, AusBiotech – JP Morgan January 2018



Xanamem – well positioned

- A growing, medically unsatisfied market: Alzheimer's now the leading cause of death in Australian women, and second only to cardiovascular disease in men
- Differentiated treatment: failure of a number of other development drugs with different mechanisms of action
- Strong IP: all 7 patent families granted in all major markets (USA, Canada, EU, UK, Japan, China, Australia) out to at least 2031



Grants

- R&D Tax Rebate: \$1.2m
- EMDG grant \$45,000, with the 2017 application under review



Selected highlights 2017

The Sunday Times
perthnow.com.au

CRUCIAL WA TEST

is this the Alzheimer's breakthrough the world has been waiting for?

REGINA TITELIUS
Health Reporter

TESTING of a new drug that could revolutionise treatment of Alzheimer's disease has started in Perth, with recruitment of the first WA patient as part of a global trial.

The medicine Xanmem, developed by biotech company Actinogen Medical, which started in WA, has been hailed by scientists as the world's new "blockbuster" drug that could provide a new way of treating the disease that affects more than 400,000 Australians.

While current medications for Alzheimer's only treat symptoms, Xanmem has been shown to help treat the underlying disease by blocking the stress hormone cortisol which then improves mental function.

The new clinical trial, which will have 20 sites across Australia, the US and UK, will be the biggest of its kind ever conducted by an Australian biotech company and builds on more than a decade of research into the drug.

A study involving WA researchers, published earlier this year, showed raised cortisol was strongly associated with the development of Alzheimer's.

The WA site for the Xanmem trial at Hollywood Hospital is being run in partnership with the Australian Alzheimer's Research Foundation, which is helping recruit eight WA people.

About 100 patients with mild Alzheimer's will be sought across the trial's 20 sites. The treatment course will last 12 weeks and results are expected in early 2019.

The first WA patient to sign up, Ian McFarlane, 63, of North Fremantle, who has no family history of Alzheimer's, said he was hopeful the new drug would work so he could keep his quality of life.

Mr McFarlane, who has four grandchildren and runs a consultancy business, first noticed memory loss in November 2015. Soon after, his partner Helen Bourke, 53, also spotted his forgetfulness and other behaviour changes.

After months of tests, Mr McFarlane received his official diagnosis in January, just after his birthday.

"We had an inkling that something was wrong but when Ian got the diagnosis, it was such a shock," Ms Bourke said.

Mr McFarlane said he initially tried to cover up his memory loss until he realised he needed help.

"If this drug works, it could change my life," he said.

Actinogen chief executive Dr Bill Ketebe said Alzheimer's was now Australia's second-biggest killer, with close to 6.5 million Australians expected to be diagnosed with the disease in the next 40 years.

"Age is the single biggest risk factor for developing Alzheimer's and the number of sufferers is doubling every 20 years," he said.

FINANCIAL REVIEW

Charge Card: Available 18 May 2017

Men's Health 33

AUSTRALIAN FIRM TREADS NEW PATH ON ALZHEIMER'S

where there has to be multiple sites on drugs, we've got to keep planning it. There's only about 100 sites in the world, so it's a challenge to get to 20 sites in Australia, let alone 20 sites in the world.

Actinogen Medical is a biotech company that is developing a new drug to treat Alzheimer's disease. The company is currently in the early stages of clinical trials and is seeking to recruit patients for its studies.

The company's CEO, Dr Bill Ketebe, said the company is "very excited" about the potential of its new drug and is "committed" to bringing it to market as quickly as possible.

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The Daily Telegraph

Trial go-ahead for new Alzheimer's drug

NEW DRUG

A NEW drug to treat Alzheimer's disease, developed by Australian company Actinogen Medical, will begin trials in the Central Coast, Sydney and Melbourne.

More than 100 patients with mild dementia in Australia and the UK will be in the world's first trial of the drug after it is approved by the Australian Therapeutic Goods Administration.

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TheSenior

What will it take to find a cure for Alzheimer's disease?

IN LESS than one generation, Alzheimer's disease has become a global health crisis. Currently more than 10 million people are affected every 20 years.

Sadly, there is not much we can offer in the way of a cure.

The need for more effective treatments and possible cures has never been greater. We have to change our approach, because the way disease hasn't worked so far.

Meanwhile, significant advances have been made in major health issues of our time - cardiovascular disease, cancer, diabetes, HIV/AIDS.

Applying the same strategies used so successfully in these areas might just accelerate our progress in finding a cure for this awful disease.

In 1971, cancer was the second leading cause of death in the US. The National Cancer Act (1971) saw the creation of the National Cancer Program, established cancer research institutes around the country and provided separate funding for cancer research.

Described as a "war on cancer", this initiative has resulted in improvements in the cancer survival rates every year for the last 15 years. We need a similar initiative in Alzheimer's disease research.

There is still so much we don't know about Alzheimer's and what triggers the disease process. A better understanding of the disease will lead to more effective treatment.

Significant investment now will have an enormous impact on health spending in the future.

2.9m

Total audience reach



Breakthrough Alzheimer's medication could 'make a difference' in just three months

9News.com.au

136 words • ASR AUD 4,179 • Actinogen Medical - Internet • ID: 807408330

A new hormone-blocking drug that could slow the progression of Alzheimer's disease is being trialled in Australia. Xanmem blocks excess production of the stress hormone cortisol in the brain, which is linked to the development of Alzheimer's.

Actinogen enrolls US patients for XanADU

nine.com.au

69 words • ASR AUD 16,117 • Actinogen Medical - Internet • ID: 797313700

Actinogen Medical has enrolled the first two US-based patients into XanADU, its phase II clinical trial of Xanmem in Alzheimer's disease.

These US patients highlight global reach of XanADU: the study will enrol 174 patients at 20 research sites in the...



Actinogen Medical (ASX:ACW) has announced the appointment of drug developer and former Amgen executive, Dr George Morstyn, to its board as a non-executive director, effective 1 December 2017.

Morstyn (MBBS, PhD, FRACP) brings extensive drug development experience to the company. He was senior vice-president of development and chief medical officer at US technology giant, Amgen, having joined the company in its earliest years.

Amgen he was responsible for drug development across all therapeutic areas, including neuroscience. Under his leadership, he oversaw the marketing approval of many new products and subsequent successful commercial launches.



2018 outlook

Outlook 2018

XanADu

- Fully funded to complete XanADu in Q2 2019, with a good capital runway beyond
- Interim efficacy and safety data analysis of first 50 completed XanADu patients - around May 2018
- On track for last patient enrolled in Q4 2018

Xanamem

- Potential additional studies to enhance the Xanamem data set, including diabetes cognitive impairment, disease modification, enzyme occupancy and others
- Planning for Phase III



Grants

- R&D Tax and EMDG
- Targeting additional non-dilutive grants



Business Development

- Participation at pharma partnering meetings – JP Morgan, BIO International, BIO Europe, BIO Asia etc.



Xanamem

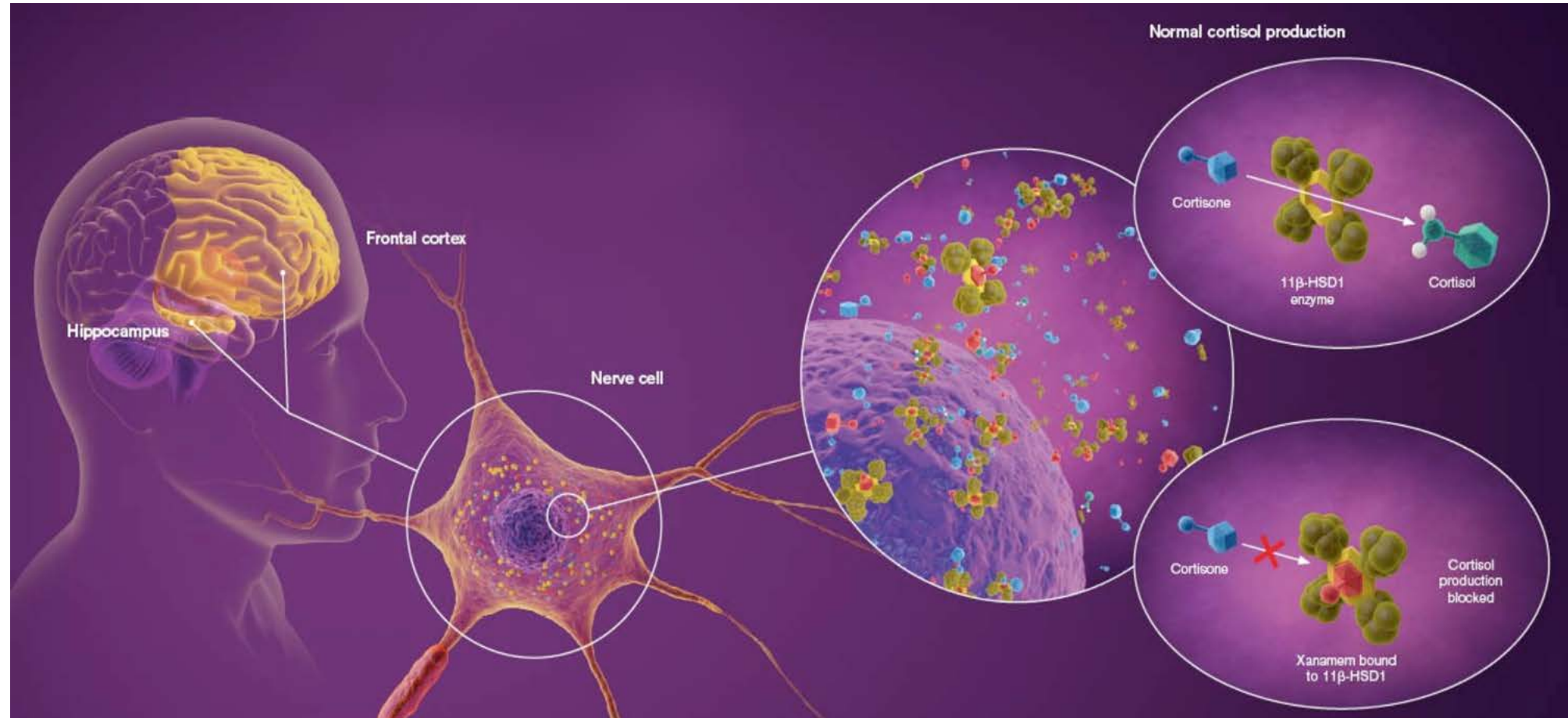
Xanamem

- A novel, first in class, potent, orally bioavailable, brain-penetrant, 11 β HSD1 inhibitor
- Differentiated mechanism of action: blocking cortisol production in the brain
- Symptomatic and disease modifying effects *in vivo*
- Well-tolerated – dosed >100 patients/subjects: acceptable clinical safety, toxicity and PK/PD profile
- Efficacious human brain concentrations
- XanADu – phase II clinical study underway, dosing subjects with mild AD dementia in USA, UK, AU
- Planning ongoing for additional clinical indications
- Composition of matter IP coverage \geq 2031, patents granted in all major markets



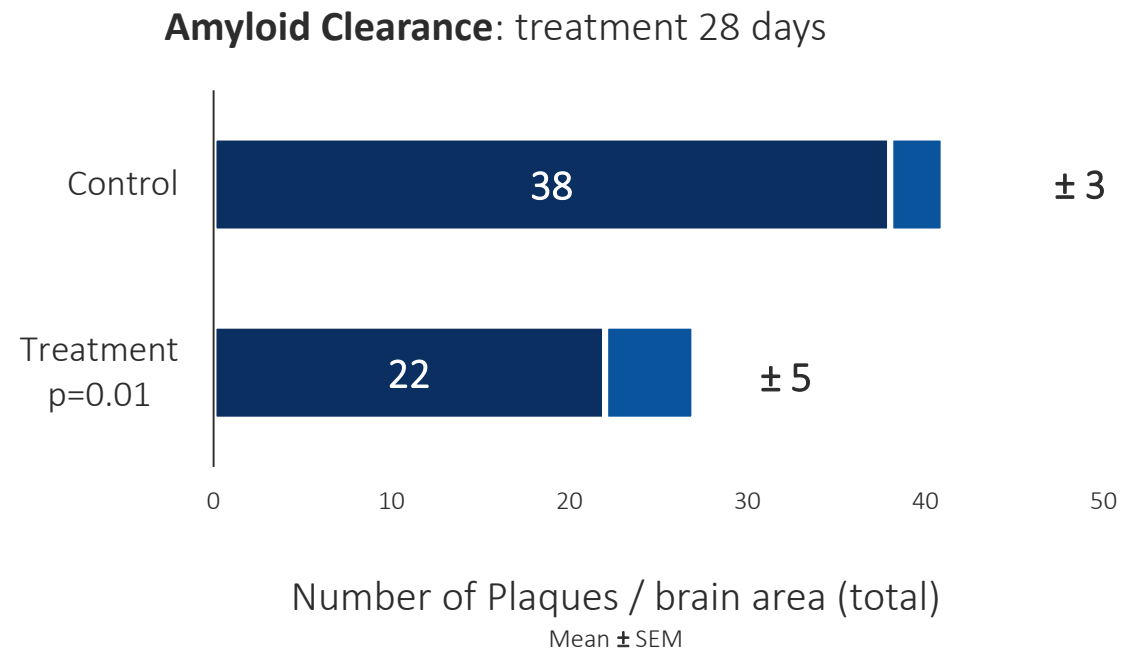
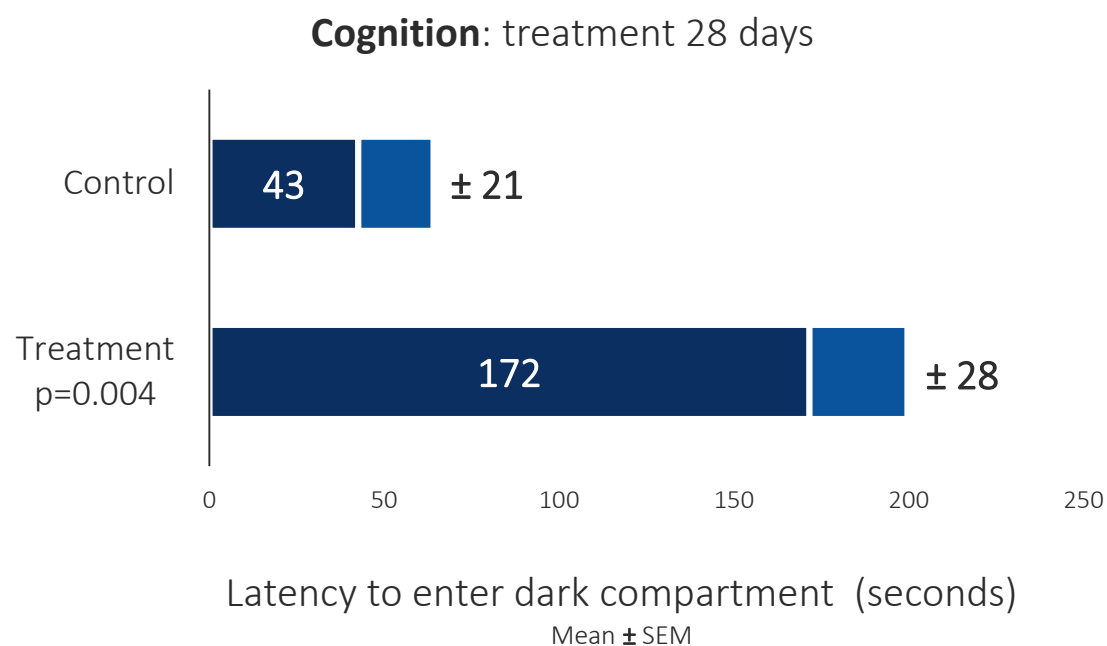
Mechanism of action

Xanamem binds to 11 β HSD1, reducing brain cortisol production



Xanamem

Symptomatic and disease modifying effects in mouse models



Significant improvement in cognition after only 28 days treatment, continuing out to 41 weeks

UE2316 in Tg2576 rodent model of Alzheimer's disease.
Source: Sooy, et al., 2015. Endocrinology 156 (12) 4592-4603



XanADu

XanADu – Xanamem in Alzheimer's disease

Phase II double blind, randomised, placebo-controlled study to assess the efficacy and safety of Xanamem in participants with mild Alzheimer's disease*

- 44 patients enrolled (25% of total study cohort) and first 6 patients already completed study
- On track for last patient in Q4 2018 and top line results in Q2 2019
- All 20 study sites open and patients enrolled in USA, UK and Aus



Xanamem treatment course

12 weeks



174

Mild Alzheimer's patients



Xanamem 10mg daily
for 12 weeks vs placebo



Trial conducted at 20 sites in
AUS, USA and UK

Primary and secondary endpoints are standard and experimental cognitive outcome measures used in Alzheimer's research: ADASCog14, ADCOMS, CDR-SOB, MMSE, RAVLT, NTB-ED

*Registered on Clinicaltrials.gov: NCT02727699

Investment potential

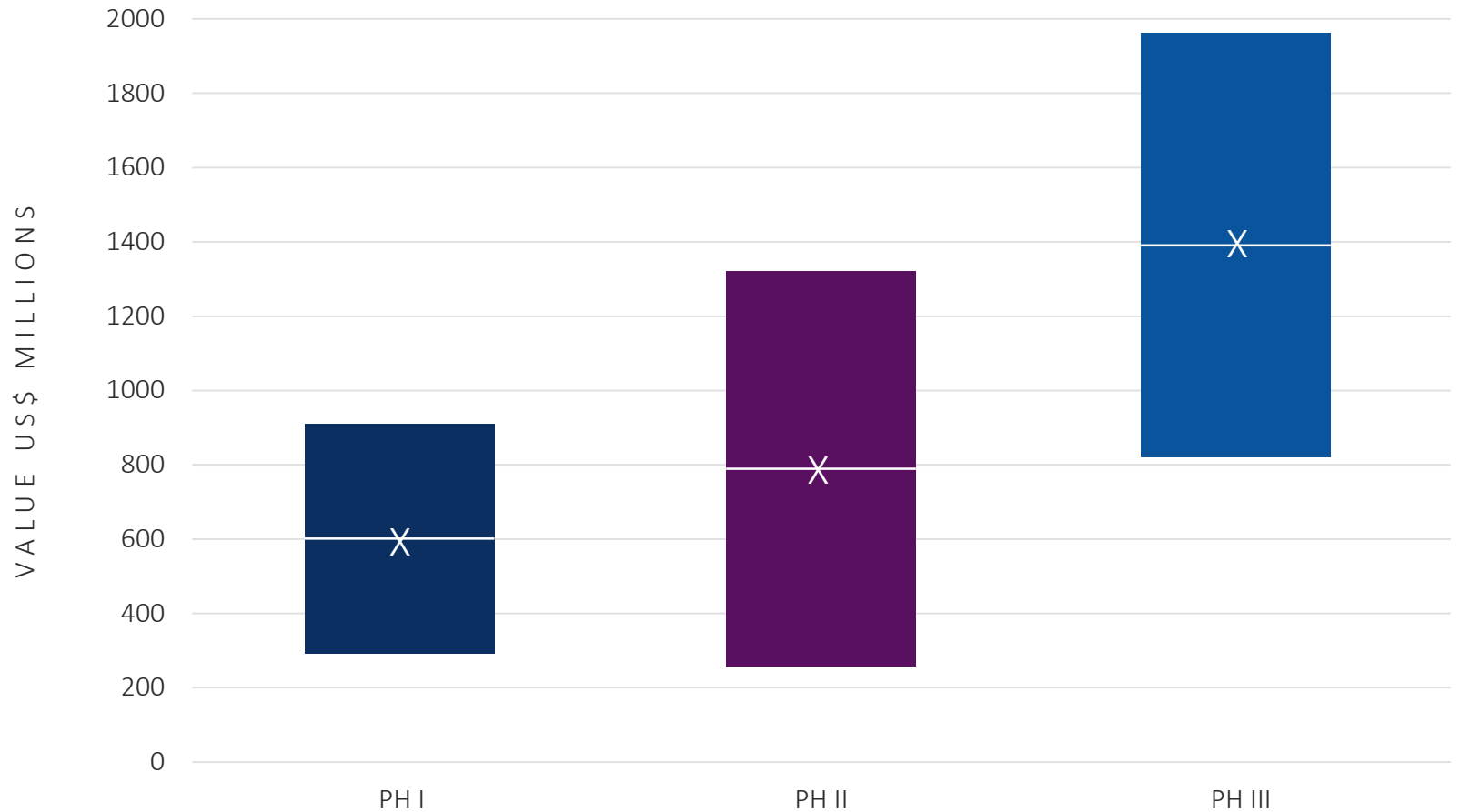
Recent comparable deals

Assets with Alzheimer's disease as the lead indication

Licensee/acquirer	Licensor/acquired	Year	Candidate	Phase	Deal Value (US\$M)	Upfront (US\$M)
Allergan	Heptares Therapeutics	2016	Three M1/M4 agonists	Ph I	<u>\$3,340</u>	\$125
Janssen	AC immune	2015	ACI-35	Ph Ib	<u>\$509</u>	Undisclosed
Merck	Bionomics	2014	BNC-375	pre-clinical	<u>\$526</u>	\$20
Eli Lilly	AstraZeneca	2014	AZD3293	Ph I	<u>\$500</u>	\$50
Iperian	BMS	2014	IPN007	pre-clinical	<u>\$725</u>	\$175
Otsuka	Lundbeck	2013	Idalopirdine	Ph II	<u>\$825</u>	\$150
Janssen	Orion	2013	ORM-12741	Ph IIa	<u>undisclosed</u>	\$31

Peer comparison

What big pharma companies are paying for acquisition of drug developers in the Alzheimer's space



In closing...

Summary



A huge market with a significant unmet medical need

Xanamem

- Differentiated with a novel mechanism of action
- Small molecule - oral
- High quality development plan and regulatory review
- Solid IP out to at least 2031
- Numerous other potential uses

XanADu

- Fully funded to completion
- Early data readout from interim analysis
- On track for last patient enrolled end 2018
- 25% enrolled already, with 6 completed



Substantial independent support for cortisol/Alzheimer's hypothesis



Highly experienced Board



Growing interest in Xanamem from pharma partners



A compelling investment opportunity

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