ASX ANNOUNCEMENT

Actinogen at SACHS Forum and JP Morgan week

- **Actinogen to present at the 3rd Annual SACHS Neuroscience Innovation Forum and participate in partnering meetings during JPM Week in San Francisco, USA**
- **Excellent opportunity for the Company to present the breakthrough XanaHES results and Xanamem's expanded dataset on a global stage**
- **Xanamem has been demonstrated to be an efficacious, brain penetrant and appropriately safe oral drug, with clinical results in line with its intended mechanism of action**
- **Actinogen will engage with investors, potential strategic partners and the scientific and medical communities during the JPM week**

Sydney, 8 January 2020. Actinogen Medical ASX: ACW ('ACW' or 'the Company') will present at the 3rd Annual SACHS Neuroscience Innovation Forum and participate in numerous partnering meetings during JPM week in San Francisco, USA in January 2020.

The SACHS Forum and JPM Week provides the Company with an excellent opportunity to update the pharmaceutical industry and major global investors interested in Neuroscience on the compelling results achieved with XanaHES, and the expanded Xanamem dataset generated during 2019.

Latest Xanamem developments that will be discussed at both events include:

- Breakthrough XanaHES results demonstrating a robust and statistically significant effect on improving cognition in healthy elderly patients taking 20mg Xanamem daily
- Target Occupancy results confirming that Xanamem works as designed to penetrate the brain in concentrations that adequately inhibit the activity of the 11ß-HSD1 enzyme
- Strong safety profile and cortisol inhibition demonstrated in human trials with 10mg and 20mg Xanamem

Following the Forum, Actinogen will participate in multiple partnering meetings during the week, which is concurrent with the 38th Annual J.P. Morgan Healthcare Conference. This preeminent global investment and business development conference attracts numerous international pharmaceutical leaders and investors.

Attached is the latest investor presentation that will be utilised in the SACHS presentation and discussed during the Company's numerous partnering meetings.

If you are interested in a meeting with Actinogen in San Francisco from 13 to 16 January 2020, please contact the Company using the details below.

ENDS

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Announcement authorised by the Board of Directors of Actinogen Medical

About SACHS Neuroscience Innovation Forum

The 3rd Annual Neuroscience Innovation Forum for BD&L and Investment in Therapeutics and Technology is to take place at the Marines' Memorial Club, San Francisco on the 12 January 2020. The program will cover BioPartnering for CNS, with industry keynotes and panels on AD, PD, Neuropsychiatry and Pain Management. The Forum brings together biotech companies focused on central nervous system conditions with partnering executives from pharm, biotech and medtech companies and analysts from investment banks and funds.

About Actinogen Medical

Actinogen Medical (ASX: ACW) is an ASX-listed biotechnology company developing novel therapies for cognitive impairment associated with chronic neurological and metabolic diseases. The company is currently developing its lead compound Xanamem as a promising new therapy for Alzheimer's disease and cognitive impairment associated with schizophrenia and mood disorders. The cognitive dysfunction associated with these conditions is significantly debilitating for patients, and there is a substantial unmet medical need for new and improved treatments.

About Xanamem™

Xanamem's novel mechanism of action sets it apart from other therapies for Alzheimer's disease. It works by blocking the excess production of intracellular cortisol – the stress hormone – through the inhibition of the 11β-HSD1 enzyme in the brain. There is a strong association between persistent stress and the production of excess cortisol that leads to changes in the brain, affecting memory. The 11β-HSD1 enzyme is highly concentrated in the hippocampus and frontal cortex, the areas of the brain associated with cognitive impairment in neurological diseases, including Alzheimer's disease, schizophrenia and the mood disorders.

The Company's XanaHES Phase I trial exploring the safety and tolerability of Xanamem™ 20mg once daily in healthy elderly volunteers, showed that the drug exhibited a good safety profile with no treatment-related serious adverse events. Additionally, the trial demonstrated that Xanamem™ produced a statistically significant improvement in cognition, which, along with other data recently generated, confirms the underlying mechanism of action of Xanamem.

The Company plans to initiate Phase II studies of Xanamem in various disease areas in 2020, including in Alzheimer's disease, and in cognitive impairment associated with schizophrenia, mood disorders and diabetes.

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

Investor Presentation

3rd Annual Neuroscience Innovation Forum

Developing innovative treatments for cognitive impairment associated with a number of medical conditions, including Alzheimer's disease

Dr. Bill Ketelbey: CEO & MD

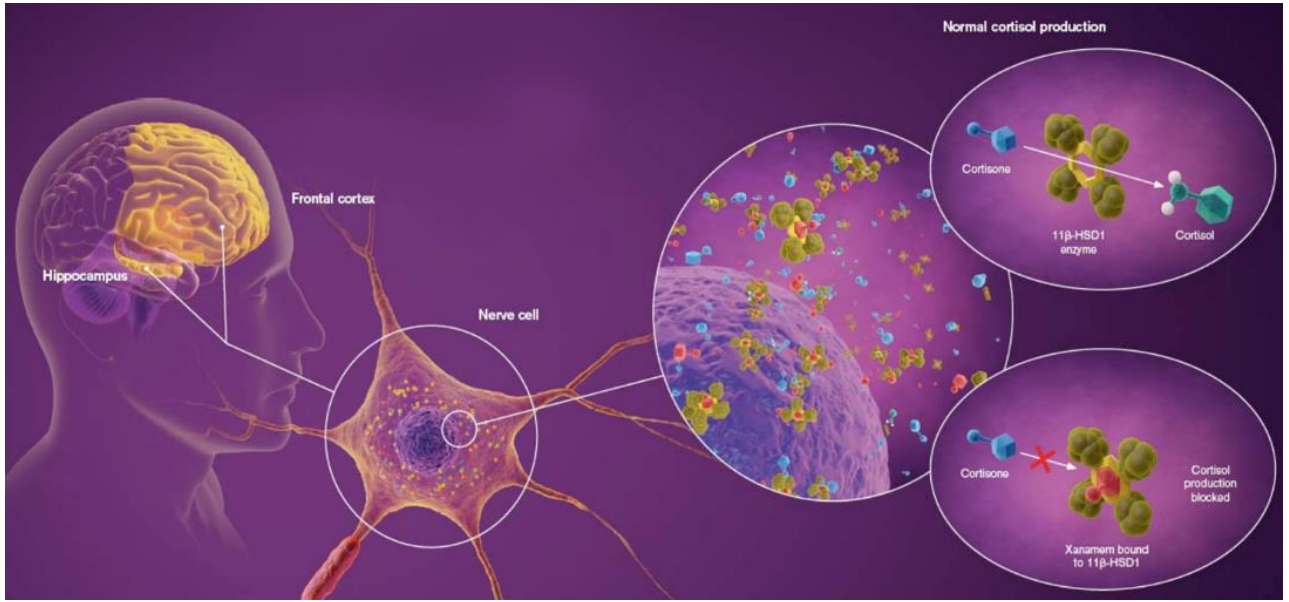
12 January 2020

Actinogen Medical

Xanamem – our lead compound under development

A novel MoA designed to inhibit cortisol production in the brain, with proof of concept in animals and in humans, a strong safety profile and significant data on dosing

- **Novel MoA *(cortisol inhibition)***
- **POC demonstrated in animal trials**
- **POC demonstrated in human trials**
- **Strong safety profile**
- **Excellent dosing data**



Xanamem - an efficacious, oral, brain penetrant, selective 11β-HSD1 inhibitor with a strong safety profile

Note: POC: proof of concept; MoA: Mechanism of Action

2019 highlights: Xanamem's efficacy demonstrated!

Deepened the understanding and significantly enhanced the dataset on Xanamem

XanaHES	Target Occupancy & Homogenate Binding Studies	XanADu	Additional Toxicology Studies
Efficacy shown in Phase 1 clinical trial in healthy elderly patients (20mg Xanamem daily)	*Phase 1 Target Occupancy, & Homogenate Binding Studies*	*Phase 2 clinical trial in mild Alzheimer's disease (10mg Xanamem daily)*	*Pre-clinical safety and toxicology studies to allow longer treatment periods*
✓ Completed	✓ Progressing on schedule	✓ Completed	✓ Progressing on schedule

Comprehensive review of Xanamem data completed – updated clinical development plan is well advanced

Significant cognitive efficacy signal achieved

Breakthrough XanaHES results demonstrate strong statistically significant cognitive efficacy improvement in multiple cognition domains – based on Cogstate Cognitive Test Battery

Working memory (One Back Test)

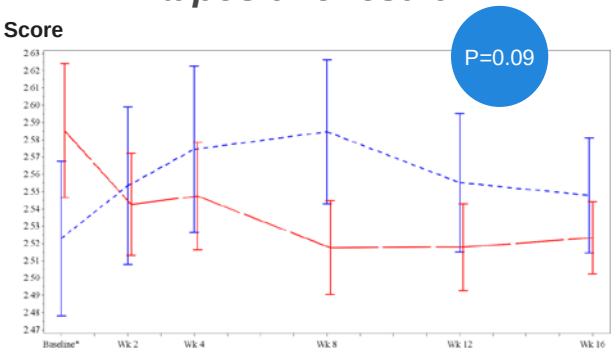
Strongly statistically significant result

Visual attention (Identification Test)

Statistically significant result

Psychomotor function (Detection Test)

Good trend to a positive result



Rapid response, evident by week 4, and sustained response out to end of therapy (wk 12)

Treatment Group
Xanamem
Placebo

Efficacy results reflect high quality and consistent data in a small study population

Baseline* Mean of Observed Data

Significant cognitive efficacy signal achieved

Cogstate Cognitive Test Battery evaluated six domains. Statistically significant cognitive improvement in three domains with significant effect size demonstrated. Rapid and sustained response achieved.

XanaHES 20mg Cogstate Cognitive Test Battery: p values and Cohen's d effect size

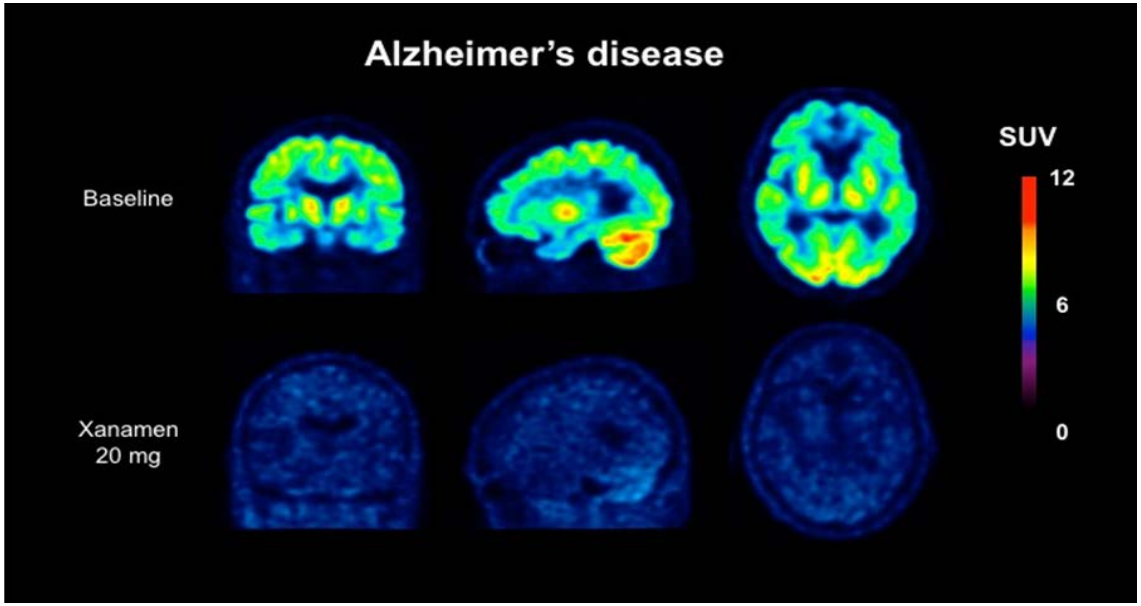
Cognitive Evaluation (Test)	p value			Treatment Effect Size: Cohen's d			
	All	Male	Female	Week 2	Week 4	Week 8	Week 12
Working Memory (One Back Test)	**<0.01***	**<0.01***	**0.03***	**0.64#**	**0.78#**	**0.64#**	**0.83Δ**
Visual Attention (Identification Test)	**0.05***	**0.04***	0.60	0.19	**0.67#**	**0.62#**	**0.67#**
Psychomotor Function (Detection Test)	**0.09^**	0.94	0.13	0.47	**0.65#**	**1.12Δ**	**0.76#**
Paired Associate Learning (CPAL[1] Test)	0.21	0.34	0.49	**0.87Δ**	0.01	**0.66#**	0.08
Memory (CPAL[1] – Delayed Test)	0.50	0.55	0.21	0.34	0.23	0.06	0.48
Visual Learning (One Card Learning Test)	0.92	0.41	0.64	0.11	0.12	**0.60#**	0.19

Notes: * statistical significance achieved; ^ strong trend to statistical significance; # effect size >0.5 (moderate treatment effect); Δ effect size >0.8 (large treatment effect)

1: CPAL – Continuous Paired Associate Learning

Target Occupancy Study: preliminary results

Phase I target occupancy study demonstrates that 5mg to 30mg Xanamem dosed for seven days significantly occupies the neuronal 11β-HSD1 enzyme throughout the brain



50% to 85% occupancy, dependent upon brain region, dosage and study subject[1]

Additional ongoing cohorts at 10mg Xanamem with delayed PET imaging to demonstrate CNS PK

Phase I Target Occupancy supports Xanamem as a potent, orally bioavailable and brain-penetrant 11β-HSD1 inhibitor

1. Study population consisted of ~50% healthy subjects (cognitively normal) and ~50% with Alzheimer's disease

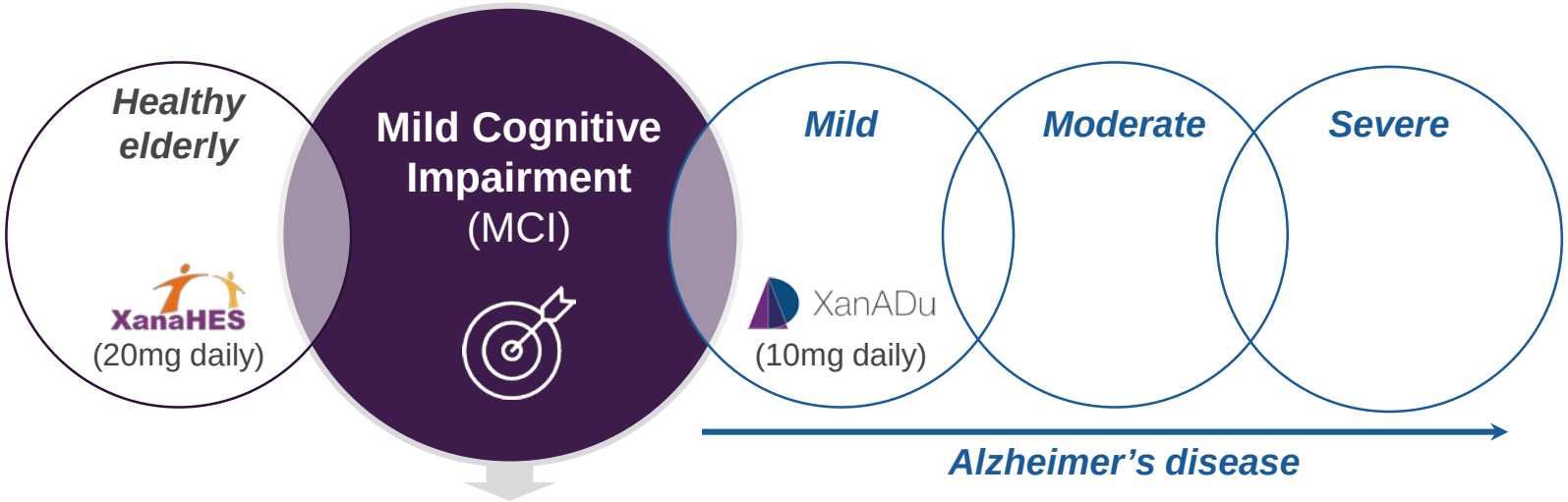
Key outcomes from Xanamem studies

		Xanamem dose
Cognitive Efficacy	Breakthrough results demonstrate a statistically significant clinical effect on improving cognition in healthy elderly patients[1]	*20mg*
Target Occupancy	Confirms Xanamem works as designed to penetrate the brain in concentrations that adequately inhibit the activity of 11ß-HSD1 enzyme	*5mg - 30mg*
Cortisol inhibition	Cortisol inhibition demonstrated in human trials	*10mg & 20mg*
	Statistically significant reduction in serum cortisol in human trial	*20mg*
Safety	Strong safety profile demonstrated in human trials[2]	*10mg & 20mg*

1. After 12 weeks therapy; effect apparent after only 4 weeks, and sustained on therapy
2. No treatment related serious adverse events reported after 12 weeks therapy

Alzheimer’s disease – the primary development focus

Actinogen plans to target patients with Mild Cognitive Impairment (an early stage of the Alzheimer’s disease spectrum) as part of the next phase of studies, linking the XanaHES results with Alzheimer’s disease

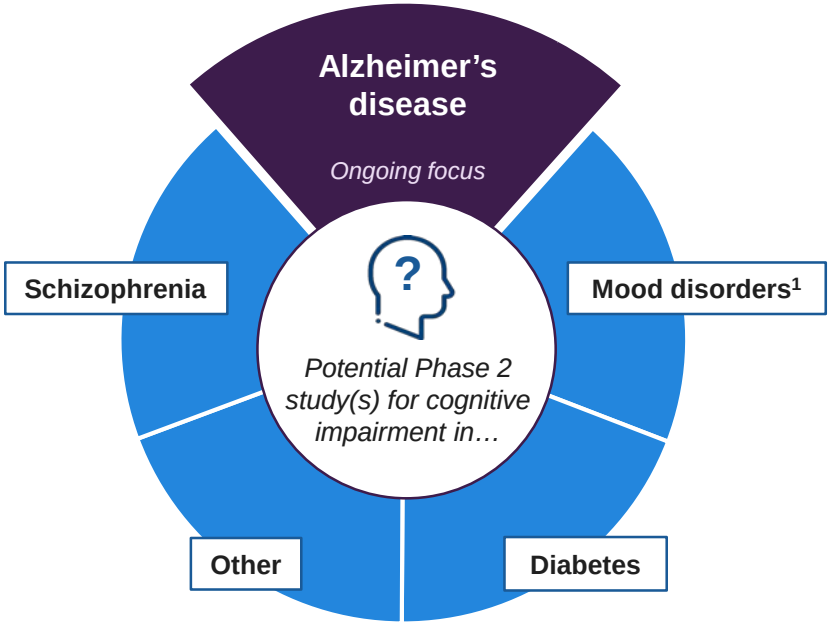


Study design to be confirmed and refined following discussions with the FDA and other regulators

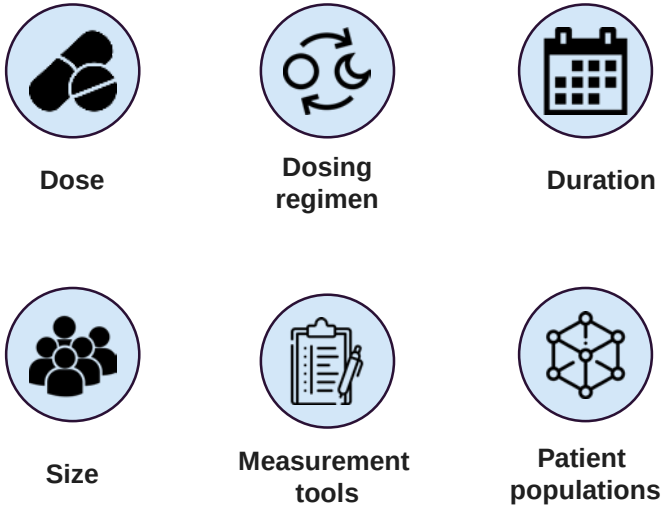
Determining the next set of Xanamem studies

Actinogen is considering how to best leverage Xanamem development across multiple target indications and determining the optimal study parameters going forward

Leveraging platform technology



Optimising study parameters



1. Cognitive impairment in Mood disorders, such as bipolar disorder

Strategic direction and next steps

Updated clinical development plan is currently well advanced, incorporating Xanamem data gathered and potential clinical development opportunities across multiple indications

Update clinical development strategy
(in progress)

- **Comprehensive review** of all Xanamem data, new target indications and potential funding options – informs strategic direction
- **Clinical development plan** includes new studies in Alzheimer's disease and cognitive impairment associated with schizophrenia, bipolar disorder and diabetes
- **Grant applications** submitted for non-dilutive funding alternatives
- Proactive engagement with **key opinion leaders** and **relevant regulatory bodies**
- Potential **collaboration and partnership** discussions continue

Next steps
(near future)

Clinical studies expected to initiate in 2020

Actinogen to present data and results at AD/PD in April 2020[1]

1. International Advancement in Alzheimer's and Parkinson's Disease Therapies (AD/PD) Focus Meeting - includes all the latest breakthroughs in drug development, translational R&D, early diagnosis, and clinical trials

Investment summary

Actinogen is developing innovative treatments for cognitive impairment associated with a number of medical conditions, with a primary focus on Alzheimer's disease

- ✓ Xanamem – a **differentiated compound** (efficacious, oral, brain penetrant, selective 11β-HSD1 inhibitor) with a **validated novel mechanism of action** and **strong safety profile**
- ✓ XanaHES trial **achieved robust cognitive efficacy signal** with results supporting the cortisol hypothesis
- ✓ Next phase of Alzheimer's disease clinical development to **target patients with Mild Cognitive Impairment (MCI)** – based on recently completed XanaHES results
- ✓ Leverage Xanamem platform technology across **multiple indications**, including cognitive impairment associated with schizophrenia, bipolar and diabetes
- ✓ **Study parameters optimised, including dose,** following latest trial results
- ✓ Exploring potential **partnership and collaboration funding** opportunities
- ✓ Xanamem development targeting a **huge unmet medical need** with **unsustainable healthcare costs**

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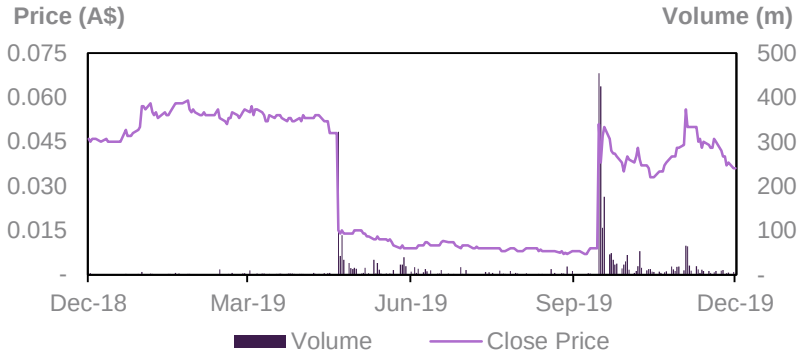
Appendix:
Background information

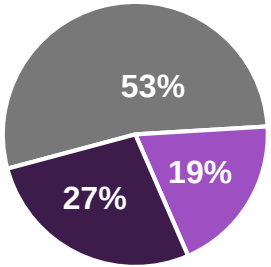
Corporate overview ASX:ACW

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

LTM share price performance



Key shareholding metrics



BVF Partners

Top 20
(excl. BVF Partners)

Remaining shareholders

Board of Directors

Dr. Geoff Brooke

Chairman

MBBS; MBA

- **30+ years experience** in the healthcare investment industry
- Founder and MD of Medvest Inc and GBS Venture Partners

Dr. Bill Ketelbey

CEO & MD

MBBCh; FFPM; MBA; GAICD

- **30+ years experience** in healthcare, biotech and pharmaceutical industries
- Formerly senior international roles at Pfizer and Director at Westmead Institute of Medical Research

Dr. George Morstyn

Non-executive director

MBBS; PhD; FRACP; MAICD

- **25+ years experience** in biotech investment and drug development
- Board member of Biomedvic, Cancer Therapeutics and Symbio; Former Senior VP and SMO at Amgen

Mr. Malcolm McComas

Non-executive director

BEc, LLB; FAICD; SF Fin

- **25+ years experience** in the financial services industry
- Chairman of Pharmaxis and Fitzroy River Corporation; formerly senior leadership roles in investment banking

Advisory Boards

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

Clinical Advisory Board (Alzheimer's disease)

Positions Xanamem at the forefront of Alzheimer's drug development

Prof. Craig Ritchie *Chair*

THE UNIVERSITY of EDINBURGH

Prof. Colin Masters *AO*

THE UNIVERSITY OF MELBOURNE

The Royal Melbourne Hospital

THE FLOREY INSTITUTE OF NEUROSCIENCE & MENTAL HEALTH

Prof. Jeffrey Cummings

Cleveland Clinic

Scientific Advisory Board

Combining deep understanding of cortisol, 11β-HSD1 and drug discovery

Prof. Jonathan Seckl

THE UNIVERSITY of EDINBURGH

Prof. Brian Walker

Newcastle University

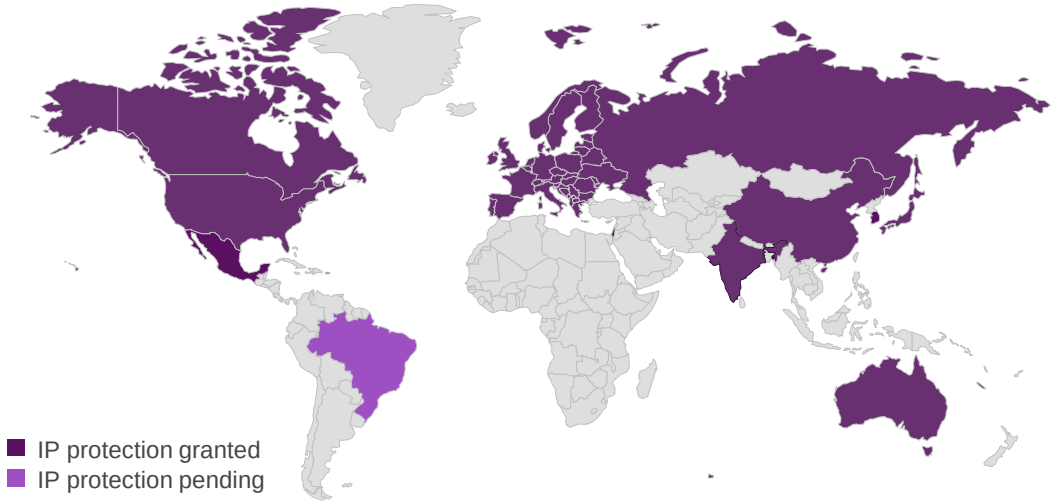
Prof. Scott Webster

THE UNIVERSITY of EDINBURGH

IP protection

Actinogen maintains a broad granted composition of matter patent estate, 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
- **Additional patents and patent extension being actively prosecuted**

>90% of the global Alzheimer's disease market

Xanamem

A novel drug designed to inhibit cortisol production in the brain, with the potential to treat cognitive impairment

Well researched
>15 years of R&D completed

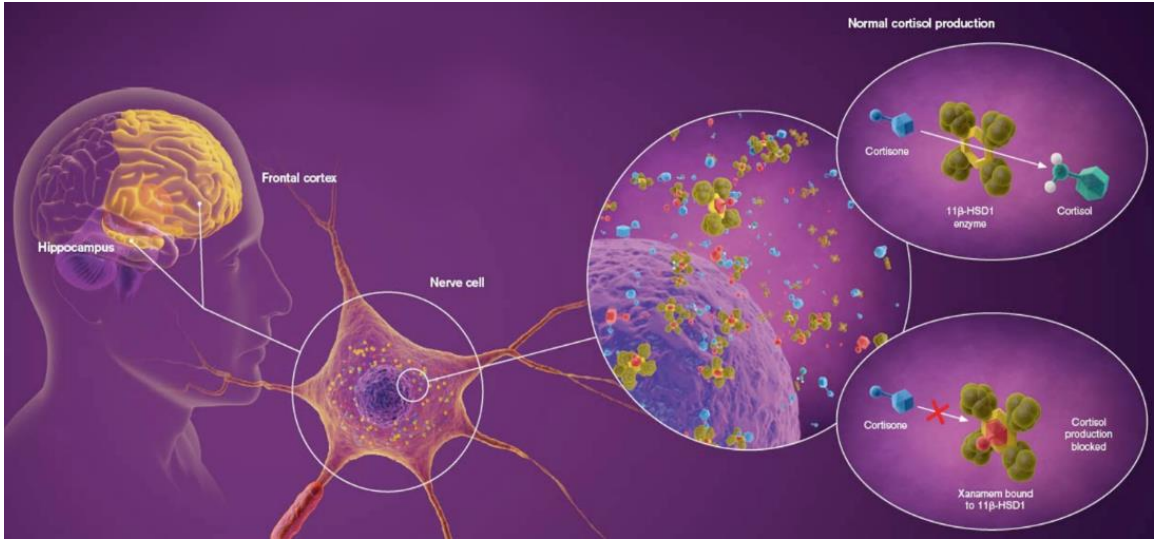
Well tolerated
Dosed >200 patients with strong clinical safety, toxicity & PK / PD[1] profile

Well protected
Composition of matter IP coverage, patents granted in all major markets

Validated in Alzheimer's model
Symptomatic and disease modifying effects (in vivo) and demonstrated effect of cortisol hypothesis (in humans)

Potential in other diseases
Cognitive impairment in schizophrenia, mood disorders and diabetes

Differentiated mechanism of action:
Highly selective 11βHSD1 inhibitor, reducing excess cortisol production in the brain



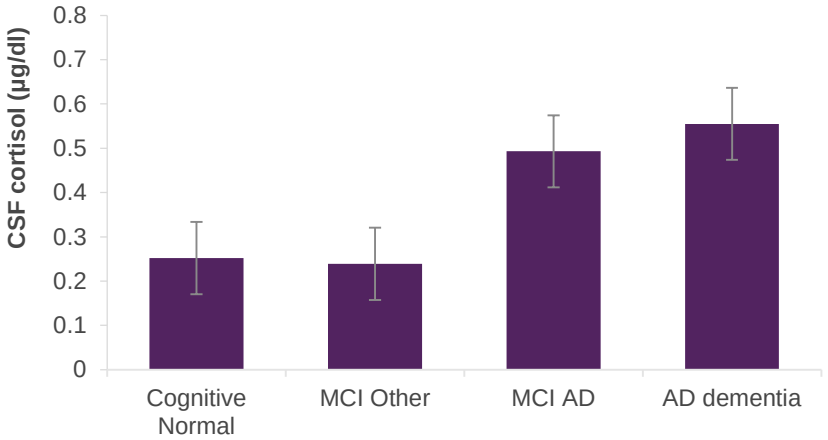
Xanamem is a novel, first-in-class, potent, orally bioavailable and brain-penetrant 11β-HSD1 inhibitor

1. PK / PD: pharmacokinetic / pharmacodynamic

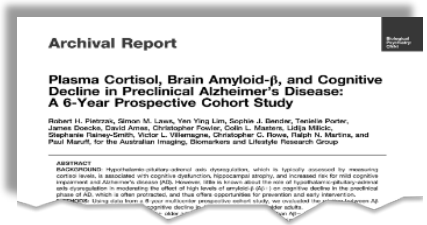
Alzheimer‘s strategic focus underpinned by medical research

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

Raised cortisol associated with Alzheimer’s disease[1]



Supported by growing body of medical literature


Archival Report

Plasma Cortisol, Brain Amyloid-β, and Cognitive Decline in Preclinical Alzheimer's Disease: A 6-Year Prospective Cohort Study

aibl

Many studies support the association between **cortisol and Alzheimer’s disease development and progression**[2]

AIBL[3] study provides compelling evidence that elderly subjects with **higher plasma cortisol levels are at much greater risk of developing Alzheimer‘s disease**

AIBL study[3] demonstrates **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-β, 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

Market dynamics of Alzheimer's disease

Presents a compelling commercial opportunity for Actinogen to target initially

Substantial target market with significant upside[1]

Cortisol-high, cognition normal	Subjective memory decline	Cognitive and functional decline fulfilling dementia		
At-risk	Prodromal	Mild	Moderate	Severe
~25.0m (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)[2]

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

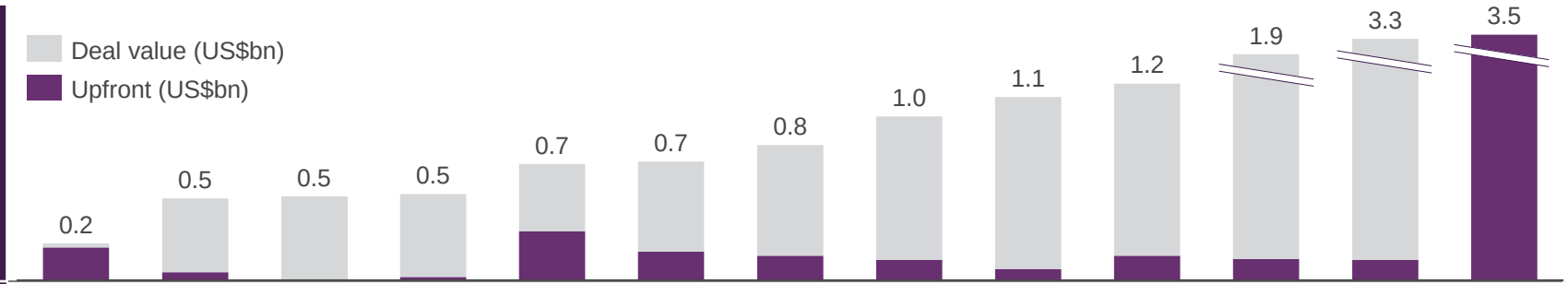
US$18/day

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 (US$12/day net), ROW: 50% of US price

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



Deal value (US$bn)	0.2	0.5	0.5	0.5	0.7	0.7	0.8	1.0	1.1	1.2	1.9	3.3	3.5
Bidder / Licensee	abbvie	Lilly	janssen	MERCK	Biogen	PIERIAN	Otsuka	Allergan	abbvie	Takeda	Lilly	Allergan	Otsuka
Target / Licensor	ALECTOR	AstraZeneca	AC Immune	Bionomics	Bristol-Myers Squibb	Bristol-Myers Squibb	Lundbeck	CHASE Pharmaceuticals Corporation	Voyager THERAPEUTICS	DENALI	AC Immune	HEPTARES therapeutics	AVANIR
Year	2017	2014	2015	2014	2017	2014	2013	2016	2018	2018	2018	2016	2014
Deal type	Partnership	Partnership	Partnership	Partnership	Licence	Asset	Partnership	Acquisition	Partnership	Partnership	License	License	Acquisition
Candidate	Immuno-neurology platform	AZD3293	ACI-35	BNC-375	BMS-986168	IPN007	LU AE58054	CPC-201	Gene Therapy platform	Brain-penetrant ATV	ACI-3024	Three M1/M4 agonists	AVP-786
Phase	Pre-clinical	I	I	Pre-clinical	I	Pre-clinical	II	II	Pre-clinical	Pre-clinical	Pre-clinical	I	III
Novel MoA (not anti-amyloid)	✓	✗	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓