Australia Biotech Invest & Partnering 2018

A novel approach to treating cognitive impairment and Alzheimer’s disease

Dr. Bill Ketelbey: CEO & Managing Director

October 2018
Actinogen is developing innovative treatments for cognitive impairment associated with neurodegenerative and metabolic diseases with an initial focus on Alzheimer’s disease.

### Key investment highlights

#### Novel compound
Differentiated with a novel mechanism of action
First-in-class, brain penetrant, orally active, small molecule, inhibitor of 11βHSD1 enzyme
Xanamem is 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
Fully funded advanced clinical stage program
Alzheimer's trial recruitment complete - top line results expected by mid CY2019
Reported positive interim analysis

#### Potential value upside
Well positioned to unlock further value
Significant Big Pharma interest

#### De-risked opportunity
Additional Xanamem – related studies initiated
Additional pipeline development opportunities

#### Experienced leadership
Significant drug development and investment experience
Leading clinicians and Xanamem discovery team
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.

What is Xanamem

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$^1$ profile

Differentiated mechanism of action
Highly selective inhibitor of the 11βHSD1 enzyme in the brain which prevents 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 ≥ 2031, patents granted in all major markets

Xanamem is a novel, first-in-class, potent, orally bioavailable and brain-penetrant 11βHSD1 inhibitor

---

1. PK / PD: pharmacokinetic / pharmacodynamic
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

- Xanamem treatment course
  - 12 weeks

- 174 patients with mild Alzheimer's disease (recruitment complete)

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

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

Fully funded study on track to complete enrolment in 4Q CY2018 with top line results in 2Q CY2019

1. Study registered on Clinicaltrials.gov: NCT02727699
2. As at 26 October 2018
Market dynamics of Alzheimer’s disease

Presents a compelling commercial opportunity for Actinogen to target initially

**Substantial target market with significant upside**

<table>
<thead>
<tr>
<th>At-risk</th>
<th>Prodromal</th>
<th>Mild</th>
<th>Moderate</th>
<th>Severe</th>
</tr>
</thead>
<tbody>
<tr>
<td>~25.0m  (50% over 65 yrs)</td>
<td>~4.0m</td>
<td>~1.5m</td>
<td>~1.7m</td>
<td>~2.5m</td>
</tr>
</tbody>
</table>

- Cortisol-high, cognition normal
- Subjective memory decline
- Cognitive and functional decline fulfilling dementia

**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

**Target annual peak sales**

>US$7.5bn

**US branded products (gross price)**

- US$10/day
- US$8/day
- US$18/day

**Upside potential for earlier use**

**Key focus**

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

A novel approach to treating cognitive impairment and Alzheimer's disease
# Big Pharma interest

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

<table>
<thead>
<tr>
<th>Deal value (US$m)</th>
<th>225</th>
<th>500</th>
<th>509</th>
<th>526</th>
<th>710</th>
<th>725</th>
<th>825</th>
<th>1,000</th>
<th>1,119</th>
<th>1,200</th>
<th>3,340</th>
<th>3,500</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upfront (US$m)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bidder / Licensee</th>
<th>abbvie</th>
<th>Lilly</th>
<th>janssen</th>
<th>MERCK</th>
<th>Biogen</th>
<th>Pierian</th>
<th>Otsuka</th>
<th>Allergan</th>
<th>abbvie</th>
<th>Takeda</th>
<th>Allergan</th>
<th>Otsuka</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target / Licensor</td>
<td>ALECTOR</td>
<td>AstraZeneca</td>
<td>AC Immune</td>
<td>BioNomics</td>
<td>Bristol Myers Squibb</td>
<td>Bristol Myers Squibb</td>
<td>CHASE</td>
<td>Voyager</td>
<td>DENALI</td>
<td>HEPTARES</td>
<td>AVANGER</td>
<td>AVANGER</td>
</tr>
<tr>
<td>Deal type</td>
<td>Partnership</td>
<td>Partnership</td>
<td>Partnership</td>
<td>Partnership</td>
<td>License</td>
<td>Asset</td>
<td>Partnership</td>
<td>Acquisition</td>
<td>Partnership</td>
<td>Partnership</td>
<td>License</td>
<td>Acquisition</td>
</tr>
<tr>
<td>Candidate</td>
<td>Immuno-neurology platform</td>
<td>AXD3293</td>
<td>ACI-35</td>
<td>BNC-375</td>
<td>BMS-986168</td>
<td>IPN007</td>
<td>LU AE58054</td>
<td>CPC-201</td>
<td>Gene Therapy platform</td>
<td>Brain-penetrant ATV</td>
<td>Three M1/M4 agonists</td>
<td>AVP-786</td>
</tr>
<tr>
<td>Phase</td>
<td>Pre-clinical</td>
<td>I</td>
<td>I</td>
<td>Pre-clinical</td>
<td>I</td>
<td>Pre-clinical</td>
<td>II</td>
<td>II</td>
<td>Pre-clinical</td>
<td>Pre-clinical</td>
<td>I</td>
<td>III</td>
</tr>
</tbody>
</table>
Aims to accurately demonstrate the effect different doses of Xanamem has on the 11β-HSD1 enzyme in the human brain

Currently underway with results expected in 2Q CY2019

To expand the safety data-set for Xanamem and allow for higher doses of the drug to be used (including in non-Alzheimer's applications)

Study is expected to initiate in 4Q CY2018

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

Studies are expected to initiate in 4Q CY2018

Actinogen is fully funded to complete these key Xanamem studies
Secondary focus is on developing the use of 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 intends to follow a rapid development pathway to identify suitable target indications
- Development program leverages existing data from earlier clinical programs

Possible target indications

- Diabetes
- Depression
- Parkinson’s disease
- Schizophrenia
- Post-traumatic stress disorder
- And more..

Preliminary assessment currently underway to identify high priority indications for development.
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
- Prof. Colin Masters AO
- Prof. Jeffrey Cummings

Scientific Advisory Board

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

- Prof. Jonathan Seckl
- Prof. Brian Walker
- Prof. Scott Webster

A novel approach to treating cognitive impairment and Alzheimer's disease
### Upcoming catalysts

Significant upcoming milestones across 2018/19

<table>
<thead>
<tr>
<th>Milestones</th>
<th>4Q CY2018</th>
<th>1Q CY2019</th>
<th>2Q CY2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase II clinical trial</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Target occupancy study (human)</td>
<td>Study duration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Milestones</td>
<td>Study initiated</td>
<td>Study initiated</td>
<td>Results release</td>
</tr>
<tr>
<td>Higher dose safety study (human)</td>
<td>Study duration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Milestones</td>
<td>Study initiated</td>
<td></td>
<td>Results release</td>
</tr>
<tr>
<td>Safety / toxicology studies (animal)</td>
<td>Studies underway</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other indication assessment</td>
<td>Underway</td>
<td></td>
<td>Preliminary decision on other indications</td>
</tr>
<tr>
<td>Strategic discussions</td>
<td>Ongoing</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Disclaimer

This presentation has been prepared by Actinogen Medical Limited. ("Actinogen" or the "Company") based on information available to it as at the date of this presentation. The information in this presentation is provided in summary form and does not contain all information necessary to make an investment decision.

This presentation does not constitute an offer, invitation, solicitation or recommendation with respect to the purchase or sale of any security in Actinogen, nor does it constitute financial product advice or take into account any individual's investment objectives, taxation situation, financial situation or needs. An investor must not act on the basis of any matter contained in this presentation but must make its own assessment of Actinogen and conduct its own investigations. Before making an investment decision, investors should consider the appropriateness of the information having regard to their own objectives, financial situation and needs, and seek legal, taxation and financial advice appropriate to their jurisdiction and circumstances. Actinogen is not licensed to provide financial product advice in respect of its securities or any other financial products. Cooling off rights do not apply to the acquisition of Actinogen securities.

Although reasonable care has been taken to ensure that the facts stated in this presentation are accurate and that the opinions expressed are fair and reasonable, no representation or warranty, express or implied, is made as to the fairness, accuracy, completeness or correctness of the information, opinions and conclusions contained in this presentation. To the maximum extent permitted by law, none of Actinogen its officers, directors, employees and agents, nor any other person, accepts any responsibility and liability for the content of this presentation including, without limitation, any liability arising from fault or negligence, for any loss arising from the use of or reliance on any of the information contained in this presentation or otherwise arising in connection with it.

The information presented in this presentation is subject to change without notice and Actinogen does not have any responsibility or obligation to inform you of any matter arising or coming to their notice, after the date of this presentation, which may affect any matter referred to in this presentation.

The distribution of this presentation may be restricted by law and you should observe any such restrictions.

This presentation contains certain forward looking statements that are based on the Company’s management's beliefs, assumptions and expectations and on information currently available to management. Such forward looking statements involve known and unknown risks, uncertainties, and other factors which may cause the actual results or performance of Actinogen to be materially different from the results or performance expressed or implied by such forward looking statements. Such forward looking statements are based on numerous assumptions regarding the Company’s present and future business strategies and the political and economic environment in which Actinogen will operate in the future, which are subject to change without notice. Past performance is not necessarily a guide to future performance and no representation or warranty is made as to the likelihood of achievement or reasonableness of any forward looking statements or other forecast. To the full extent permitted by law, Actinogen and its directors, officers, employees, advisers, agents and intermediaries disclaim any obligation or undertaking to release any updates or revisions to information to reflect any change in any of the information contained in this presentation (including, but not limited to, any assumptions or expectations set out in the presentation).