Neuren Pharmaceuticals

CEO Presentation

AGM May 2007

Summary - progress

Major progress has been made…

- **Phase 3 Glypromate® US FDA trial underway**
  - **Major focus for the Company over the last year**
  - **FDA validation... highest hurdle**
  - **Very cost effective trial**
  - **First to market**
- **Phase 1a NNZ-2566 complete**
  - **Safe and well tolerated**
- **Phase 1b NNZ-2566 underway**
  - **Flexible design – use for both Phase 2 trials**
- **Third lead candidate NNZ-2591**
  - **Multiple potential uses**

- **Set to deliver strong clinical trials programme…**

More…

- **Cancer technology significantly progressed**
  - **Significant interest**
- **Partnering programme developed**
  - **Under Due Diligence**
  - **Multiple CDA and MTA agreements signed**
- **Strong Trial infrastructure built**
  - **COO appointed... Dr Parmjot Bains**
  - **Other CD Staff appointed… 36 years experience in US FDA Phase 3 trials**
  - **Key opinion leaders appointed**
- **Drug supply and logistics for both trials finalised**
- **US army continued strong support**
  - **Mode of Action understood**
- **Funding raised A$7.6 million**

Our strategy

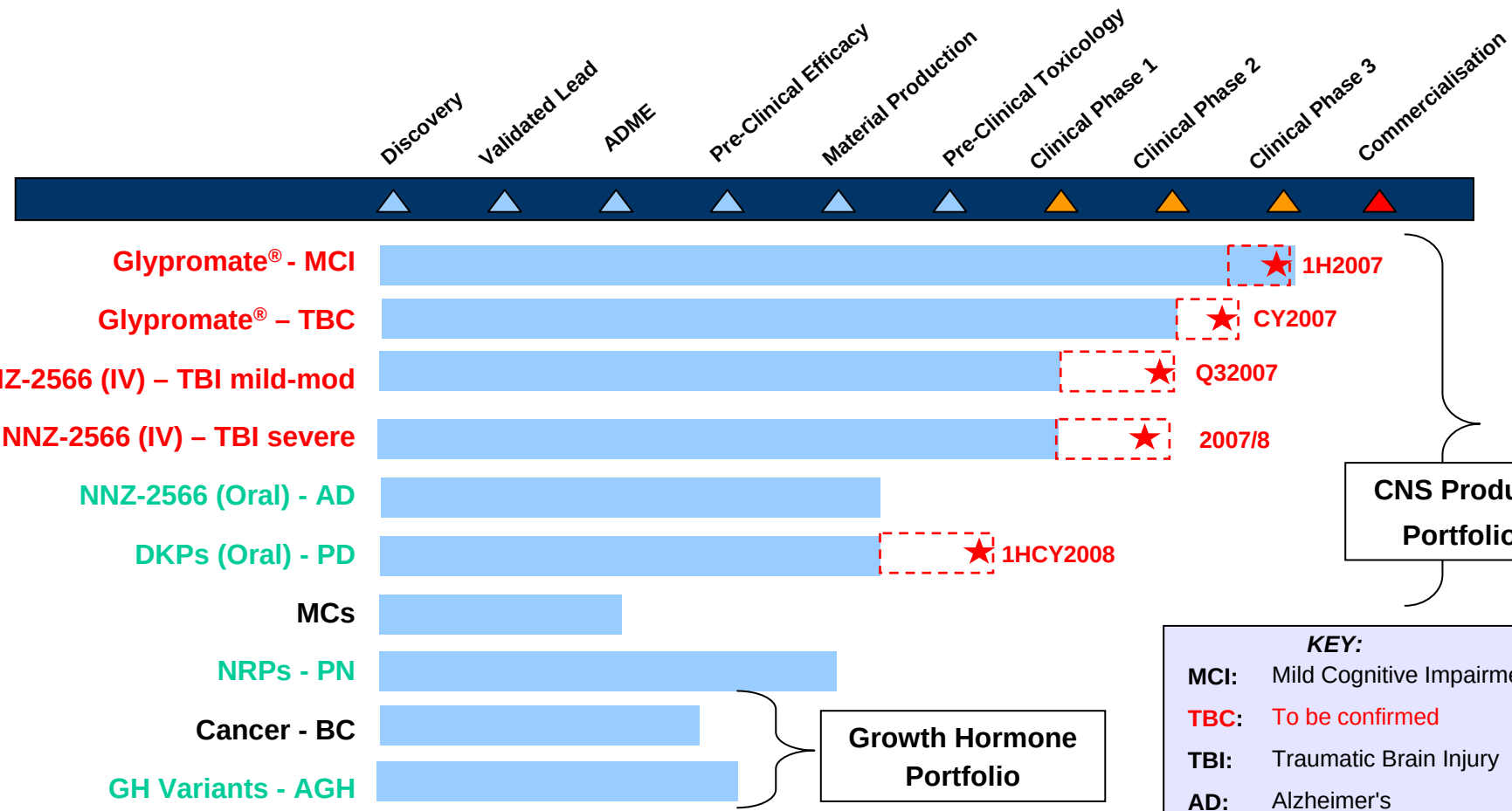
- The Glypromate® Phase 3 trial is on target to complete in 18 months
  - Examining other potential applications
  - Created significant US interest

- The NNZ-2566 TBI trials (2) planned to commence near term
  - Efficiency signals in next 18 months
  - US army support and Fast track/Orphan Status

We plan to have multiple trials complete with efficacy signals in the next 18 months

- Out-licensing programme underway
  - NB average time closure 18 months
  - Interest in Glypromate®, NNZ-2566, NNZ-2591 and Cancer
  - Currently under Due Diligence

Development pipeline



KEY:

MCI:	Mild Cognitive Impairment
TBC:	To be confirmed
TBI:	Traumatic Brain Injury
AD:	Alzheimer's
PD:	Parkinson's
PN:	Peripheral Neuropathy
BC:	Breast Cancer
AGH:	Adult Growth /Obesity

neuren pharmaceuticals

Multiple out-licensing opportunities

- NEU has an extensive pipeline as a result of its “Right to Own” agreement with the University of Auckland
- NEU has focused on developing four + product lines such that they are **attractive out-licensing or further investment opportunities**

NNZ-2566 / NNZ-2591 (oral)

- **Targeting Parkinson’s / Dementia/ Peripheral Neuropathy**
  Confirmed oral bioavailability
- **Highly protective in stroke (90%)**
- **Excellent IP position**

NRP: NNZ-4921

- **Peripheral Neuropathy**
- **Unmet need**
- **In vivo successful**
- **Joint venture with Metabolic**

Cancer: NNZ-8000

- **Breast and cancer – Growth hormone mediated: 90% relevant**
- **Unique pathway, wide applicability**
- **Ab programme**
- **Q2 milestone –pAb**
- **Q3 milestone -mAb**

Obesity: NNZ-3006

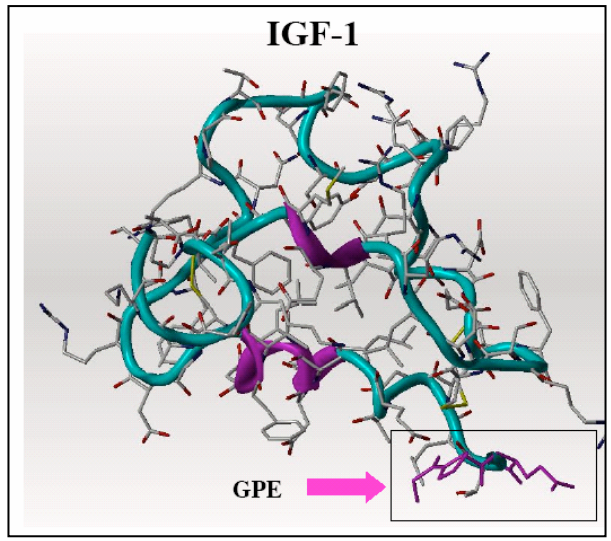
- **Obesity - Form of growth hormone (GH)**
- **No unwanted side effects**
- **Reduces fat deposits**

neuren pharmaceuticals

neuren pharmaceuticals

Glypromate®

Safe, non-toxic and in Phase 3



Glypromate® Phase 3 - Why is this important?

- Excellent drug design… pharmacology, safety profile, long therapeutic time window
  - Typical of naturally occurring compounds; evolution as an effective drug discovery strategy
  - Multiple modes of action = multiple opportunities for effect
  - Single action drugs will not work in acute CNS
- Post-operative cognitive impairment is a well-recognized area of medical need
  - Accepted as a target for therapeutic intervention by FDA and EMEA
  - Defined as a therapeutic goal by the American College of Cardiology and American Heart Association
  - End point in common use eg AD, ADHD
- Post-operative cognitive impairment is a serious problem for patients
  - Equivalent to the difference in function between a 40-year old and a 60-year old (Newman et al, *NEJM*, 2001)
  - Results in persistent cognitive impairment in ~200,000 patients per year (*NeuroInvestment*, Sept. 2003?
  - Increases risk of Alzheimer's disease (Lee et al, *J Alzheimer's Disease*, 2005)

Glypromate® Phase 3 - Why this trial?

- Adequately powered to detect an effect
  - Many trials have been underpowered (e.g., Pharmos dexanabinol)
  - FDA have agreed to ADAPTIVE DESIGN... at 300 patients it will be opened and patient numbers increased to ensure adequate trial power if needed

- Resources in place for cost-effective execution
  - Strong internal clinical trials management experience
  - US CRO with superb experience in hospital-based cardiology trials in Phase 3 FDA
  - Automated system for capturing cognitive performance (CDR) well-validated and proven

- Sophisticated trial design
  - Spent considerable time on trial design and logistics and working with the FDA

Commercial strength

- We believe this combination of
  - Drug properties and
  - Trial design

  has a better combination than all others we know in this space and is very well matched to the endpoint…

<u>And we have</u>

- FDA validation…
  - everyone has to go to the FDA eventually!!!
- Affordable trial, A$10 million
- Adaptive design reduces risk
- CABG alone is a $1 billion+ potential market with no approved drugs
- CABG is accepted as a surrogate for stroke, a $3.5 billion market Glypromate® is positioned to be **first to market** — good safety margin, potential pharmacoeconomic benefits and reasonable cost will encourage rapid adoption
- Trial backed by key international opinion leaders

Phase 3 Executive Committee

Comprising a number of global leading clinicians and researchers in neurology, cardiology, cardiothoracic surgery and anaesthesiology.

The members of the Executive Committee are:

- Professor Harvey White (Auckland Hospital, Professor of Cardiology, Chair),
- Professor Alan Merry (Auckland Hospital, Professor of Anaesthetics)
- Professor John Knight (Flinders Medical Centre, Australian Cardiac Surgeon)
- Dr David Stump (Neuropsychologist, Wake Forest, USA)
- Dr John Hammon (Cardiac Surgeon, Wake Forest, USA)
- Dr Doug Wilson (Neuren's Chief Medical Officer) and
- Dr Keith Wesnes (Cognitive Drug Research, UK)

neuren pharmaceuticals

NNZ-2566

About to enter Phase 2 for TBI

NNZ-2566 TBI Program

- Completed
  - Complex pharmacology - multiple modes of action in multiple pathways
  - Obtained Consistent effects in multiple models - stroke, closed-head injury, penetrating head injury
  - Drug CMC logistics completed
- Flexible clinical trial strategy
  - Separate moderate from severe - different types of injuries with different outcomes
  - Phase 1b will leverage into TWO trials... Cost effective
  - More sensitive endpoints - validated neuropsychological and neurocognitive instruments, not just crude Glasgow Outcome Scale
- Better partners - US Army and leading neurotrauma experts and centers
- Highly attractive market for drug development and commercialisation
  - 750,000 patients per year
  - Completely untapped market, highly concentrated for rapid penetration with small sales force
  - Accelerated/Orphan development under FDA and EMEA guidelines
- Continued high level of US Army support

neuren pharmaceuticals

NNZ-2591

Oral treatment for Chronic CNS

NNZ-2591 – Oral treatment for multiple diseases

- **Meets all requirements for a CNS drug candidate**
  - 100% oral bioavailability
  - Safe, non-toxic, crosses into brain, therapeutic window
  - Stable, low cost of goods
- **Key Results**
  - Parkinson's disease: long-term disease modifying effects as well as short-term
  - Reduces memory loss/cognitive impairment
  - Peripheral Neurology
- **Market position — significant opportunities in multiple indications, large markets**
  - Parkinson’s disease - benefits of conventional treatment decline over time; recent evidence of safety concerns with second line drugs; serious need for new drugs with new mechanisms
  - Parkinson’s disease dementia - up to 70% of PD patients develop dementia; no current therapy
  - Peripheral neuropathy - no approved drugs that target underlying pathology; few oral drugs in development

neuren pharmaceuticals

NNZ-8000

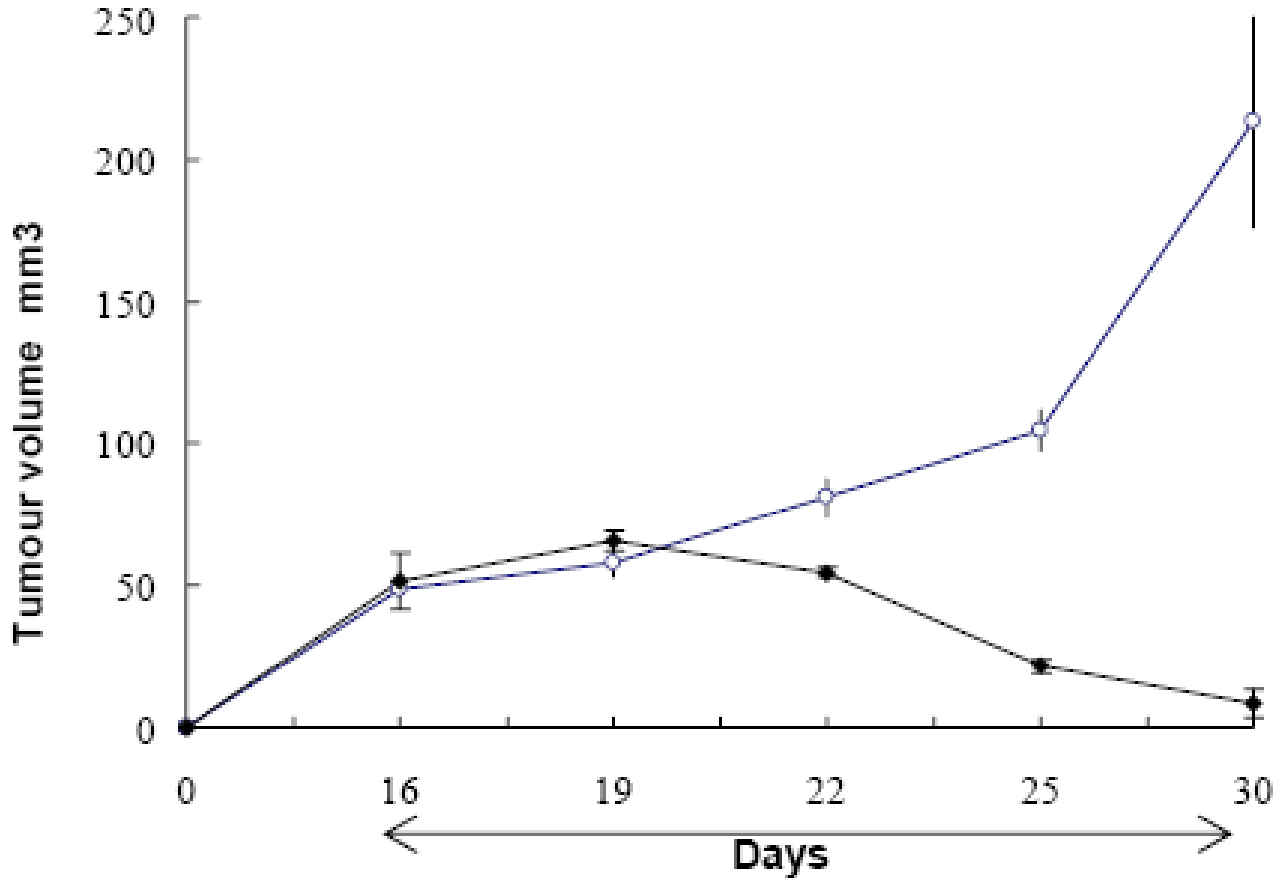
A treatment for solid tumours

Cancer programme

- Neuren has developed unique IP in a set key molecules involved in many cancers
- The presence of these factors , called TFF's , lead to tumor growth and spread
- We have strong laboratory evidence reinforced by strong clinical evidence

- In vitro and in vivo proof of principle established via numerous methods
  - RNAi, peptidomimetic, polyclonal antibodies, monoclonal antibodies
- Also excellent opportunity for development of diagnostics
  - Support for patient selection and therapeutic response monitoring in clinical trials
  - Commercial development of clinical diagnostics for cancer detection, prognosis and monitoring
- Average discovery stage cancer licensing deal >$100 million
- Currently significant third party interest

Tumor volume in xenograft model of human breast cancer
(polyclonal antibody; MCF-7 cell line)



Our strategy

- Hasn't changed….
  - Well developed clinical trial programme and out-licensing strategy
  - A great deal of effort over the last year in preparing for Phase 3 US FDA trial
- A leader in the area of reducing acute brain damage
  - Large markets, high unmet need and limited competition
  - Well-designed, safe, well-characterised drugs
  - Cost effective and focused trial design
- Validation
  - Glypromate® … with FDA Phase 3 approval
  - NNZ-2566… with continued US Army support
- Continue to build portfolio and partnerships
  - NNZ-2591, Cancer, NRP etc

» **Exciting Future**

neuren pharmaceuticals

Thank you for your continued support…