

neuren

pharmaceuticals

Neuren Pharmaceuticals

**Investor Update
February 2006**



Disclaimer

This presentation includes forward-looking statements that are subject to risks and uncertainties. Such statements involve known and unknown risks and important factors that may cause the actual results, performance or achievements of Neuren to be materially different from the statements in this presentation.

Actual results could differ materially depending on factors such as the availability of resources, the results of clinical studies, the timing and effects of regulatory actions, the strength of competition and the effectiveness of patent protection.



Neuren Pharmaceuticals

Corporate Overview

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Corporate Snapshot

Neuren is a drug development company targeting brain repair & rescue, metabolism and cancer

Neuren's lead products protect against brain damage

Glypromate® has been accelerated into Phase-3 clinical trials following a productive meeting with FDA

ASX code: NEU

Share price: \$0.52

Market cap: \$58.2m

Cash: \$11.4m (as at 31 December 2005)

Shares on issue: 112m

20m options

Recent Accolades:

- BRW Top Ten Stocks Under \$1.00
- Awarded NZ 2005 Biotechnology company of the year
- CSO inaugurated into US Institute of Medicine

Register

NeuronZ Ltd:	11.0%
NZ Seed Fund Management Ltd:	10.2%
Pfizer Inc:	7.2%
K One W One:	5.6%
Macquarie:	4.3%
Top Twenty:	71.4%

Share Price Performance Since IPO



Repairing brain damage from aging and injury

Repairing Brain Damage from Aging and Injury

BRAIN INJURY

- Brain cells die acutely
 - No blood supply
 - Trauma
- Brain cells die chronically
 - Disease process
 - Aging



DISEASE

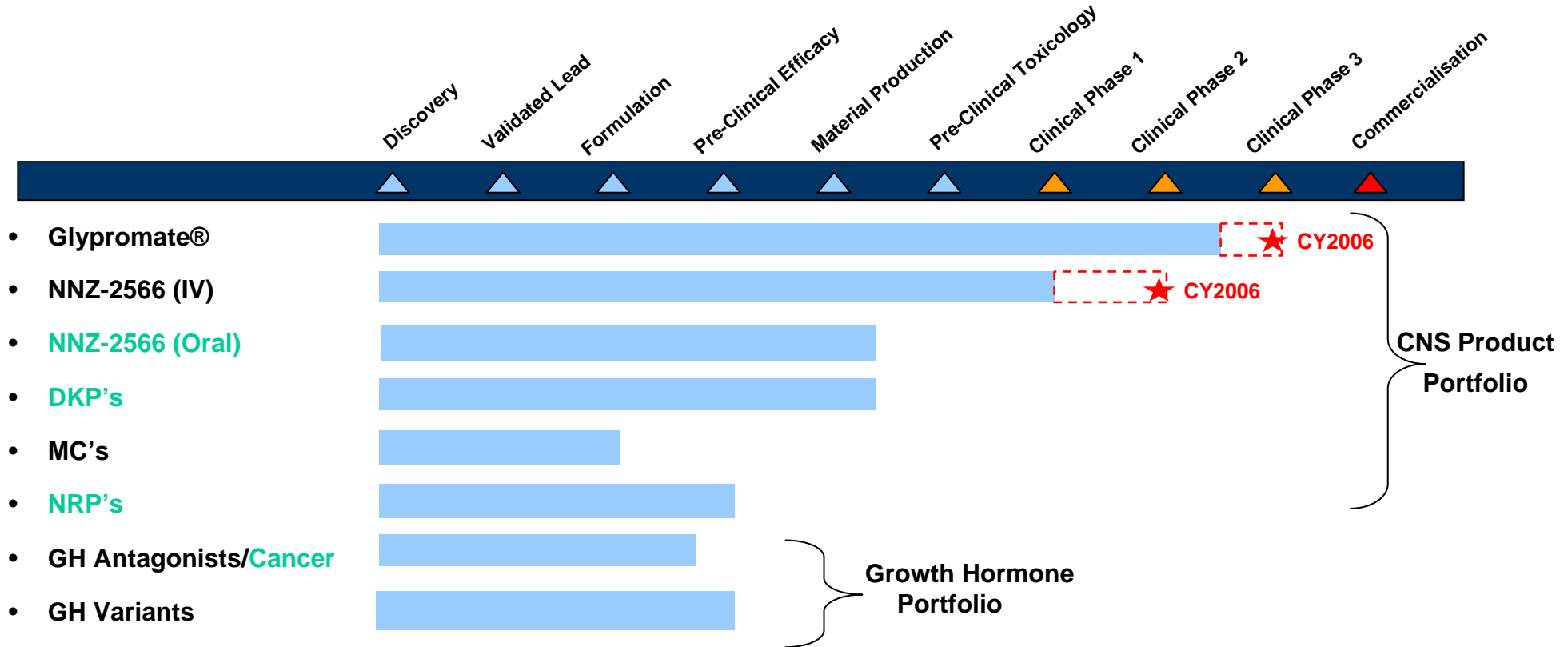
- Stroke
- Traumatic Brain Injury (TBI)
- Alzheimer's Disease
- Parkinson's Disease
- Memory Loss

- Nervous tissue in the brain has very poor regenerative capacity
- Most neuronal damage is the result of eventual cell death that occurs over the hours or days following the initial injury

Provides a window of time for rescue

Neuren's products take the brain's natural repair agents and improve them to minimise post-injury neuronal cell death

Development Pipeline



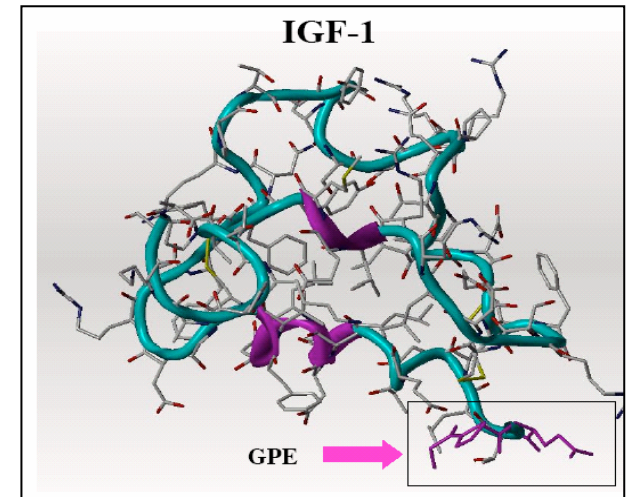
Extensive development portfolio offering several means of delivering value

Glypromate®

Coronary Artery Bypass Graft (CABG) Surgery

Glypromate®

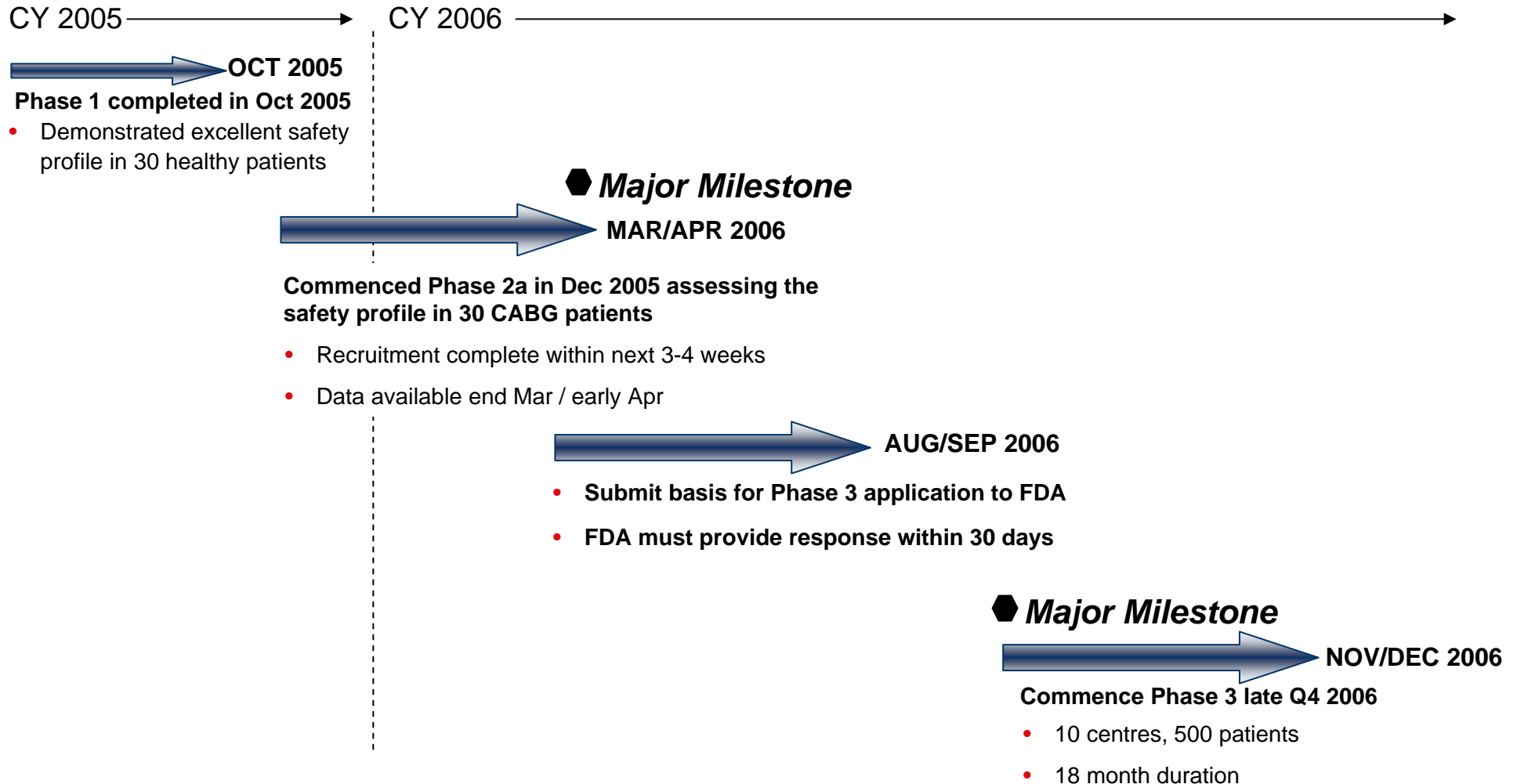
- Glypromate® is derived from a naturally occurring peptide that is generated by the human brain
- Glypromate® has the following significant neuroprotection characteristics:
 - Crosses the blood brain barrier
 - Long therapeutic window (highly effective when administered 7 – 11 hours after primary injury)
 - Highly effective in six different animal models
- The first indication that Glypromate® is being tested for is neuroprotection in patients undergoing Coronary Artery Bypass (CABG) Surgery
 - During CABG surgery the heart is stopped and bypassed using a machine
 - When machine is removed and heart re-started tiny clots pass to the brain
 - Up to 70% of patients have a decline in cognitive function following CABG surgery
- In CY2005 pre-investigational new drug meeting with the US FDA accelerated Glypromate® development plan



Glypromate® - Neuroprotection in CABG Surgery

- CABG surgery was selected by Neuren because of its drug trial characteristics and excellent commercial prospects:
 1. Drug Trial Characteristics
 - CABG surgery scheduling is timed and known
 - No ambiguity in diagnosis, base-line cognitive function can be tested
 - Drug can be administered at optimal timing for maximal effect
 - Affordable trial, A\$10m
 2. Excellent Commercial Prospects
 - No drugs currently available, any efficacy demonstrated will likely result in rapid adoption for CABG
 - Currently 400,000 CABG operations per year in the US alone
 3. Surrogate for Stroke
 - Demonstration of neuronal protection through CABG would most likely lead to off-label use in stroke patients

Glypromate® – Development Plan



Entering significant clinical development phase in next 6 months

Glypromate® – Accelerated into Phase 3

- Safety is the key issue governing whether Glypromate® will successfully enter Phase 3 in 2006
- Safety considerations have been paramount in design and conduct of Phase 2a trial and preparation for Phase 3
- All the evidence to date suggests that Glypromate® is an extremely safe compound that is well tolerated in humans
 - Unable to generate any toxic response in animals
 - No drug related adverse events in Phase 1 trial
 - The FDA reviewed all data and on the basis of the safety profile was happy to accelerate the Glypromate® development program directly into Phase 3
- To date, there have been no serious adverse drug effects in the Phase 2a trial
- All FDA pre-clinical work completed successfully to Phase 3 standards

NEU is poised in Q4 CY2006 to conduct a Phase 3 trial under FDA jurisdiction (unique in this market)

NNZ-2566

Traumatic Brain Injury (TBI)

NNZ-2566 – First Indication is Traumatic Brain Injury

- NNZ-2566 is a modified version of Glypromate® that resulted from an extensive medicinal chemistry program
- NNZ-2566 offers additional attractive characteristics including:
 1. More Potent
 2. Oral bioavailability
 3. Longer Acting
- The first indication that NNZ-2566 is being tested for is Traumatic Brain Injury (TBI)
- TBI is a large market with no currently approved therapies
 - 1 million treatable patients per year in US (2 million worldwide)
 - **70%** emergency department admissions / 30% hospital admissions
- Need for drug that can be safely administered at the scene or in ED without need for sophisticated diagnostics (ie a very safe drug)
 - All previous compounds targeting TBI have received **FDA Fast-Track**

NNZ-2566 has Delivered Excellent Results to Date

- Attractive development arrangement with the US Department of Defence (Walter Reed Army Institute of Research)
 - Walter Reed Army Institute of Research funds half of the pre-clinical research
 - Neuren retains all future commercial rights to NNZ-2566 outside the US Military (1-2% of the total market)
- Very successful pre-clinical program with Walter Reed
 - 70% reduction in neurological deficit at 72 hours
 - 50% reduction in activated microglia (key element of inflammation)
- Neuren and Walter Reed have identified a **new and effective** measure for assessing effectiveness of compound: Non-convulsive seizures
 - Highly correlated with traumatic brain injury
 - Readily and objectively measured in an emergency medical setting
 - Subject of a new CIP being filed by Neuren and Walter Reed
 - **Simplifies development path for NNZ-2566**

NNZ-2566 Development Plan

CY 2005 → CY 2006 →

Complete pre-clinical program with Walter Reed

- Demonstrated excellent results in all animal studies to date

Delivered GMP for drug manufacturing

- Cost of goods reduced by 75%

Major Milestone

Commence Phase 1 in 1H 2006

- Alfred hospital (Melbourne)
- 30 patients
- Phase 1b under construction
- Results before end of year

Note: Phase II protocol is ready under development and summary has been submitted to Walter Reed for review and funding approval.

- Focus on moderate head injury patients
- Non-convulsive seizure and mortality are primary endpoints.

Entering significant clinical development phase in next 6 months

Pipeline

Opportunity to out-license four product lines in near term

Four Near-Term Out-licensing Opportunities

- NEU does not have the resources to independently develop its entire pipeline
- NEU has focused on developing four product lines such that they are attractive near-term out-licensing opportunities
 - Stable compounds
 - Excellent manufacturing characteristics
 - Excellent in-vivo results

NZ 2566 (oral)

- ♦ Confirmed oral bioavailability
- ♦ Highly protective stroke (90%)
- ♦ Targeting Alzheimer's / Dementia
- ♦ Excellent IP position
- ♦ CY2006 Q2/3 in-vivo complete

DKP: 2591

- ♦ Well known class:
Unique analogue
- ♦ PD results confirmed
- ♦ Parallel NNZ-2566 oral

NRP: 4921

- ♦ In-vivo successful
- ♦ Unmet need
- ♦ CMC / ADME underway
- ♦ JV with Metabolic

Cancer: 8000

- ♦ Breast cancer – GH medicated: 90% relevant
- ♦ Ab and small molecule
- ♦ Q2 milestone – Pab
- ♦ Q3 milestone - Mab

Conclusion

Poised for major milestones

Investment highlights- All on Track as per Dec 05

Stage of Development
Poised for Major Milestones

- Glypromate® accelerated to **Phase 3** in CY2006
 - Preclinical package completed... **SAFE and STABLE**
- NNZ 2566 is entering Phase 1 in 1H CY2006 and will deliver results before the end of the year
 - Conducting in collaboration with the US Department of Defence
- Major milestones that are expected to lead to significant re-rating of stock:
 - Poised to become one of very few Australian companies conducted a Phase 3 trial under **FDA jurisdiction**

Excellent Commercialisation
Prospects

- Option to secure licensing deal for Lead Products (Glypromate® and NNZ 2566 IV) in 2008
 - Pivotal Phase 3 efficacy trial completed for Glypromate®
- Opportunity to out-license four product lines in near term (from Q1 2007)
 - NRPs, DKPs and NNZ 2566 Oral and Cancer
- Attractive margins and cost of goods

Investment highlights

Uniquely positioned to fund its own Phase 3 Study

- Very few Australian companies are in Phase 3 trials: Typically prohibitively expensive
- Neuren in close consultation with the US FDA are structuring a very cost effective Phase 3 trial (first pivotal study = A\$10m)
- Plus time and money savings from acceleration in to Phase 3

Significant Market Opportunities

- Products address multi-billion markets with unmet needs
- Limited competition

Excellent Management Team

- Extensive international experience in drug development and commercialisation (100+ years; Filed 100 INDs)

Breadth and quality of portfolio

- Top calibre international partners: Pfizer, US Department of Defence
- Six families of products