Neuren Pharmaceuticals (ASX: NEU)

Dr Parmjot Bains and Dr Robin Congreve

Presentation

Annual Shareholders' Meeting 29 May 2008

Neuren

An emerging global leader in the treatment for central nervous system disorders and brain injury

Agenda

- Neuren Today
- Year in Review
- Opportunity Update
- The Year Ahead

Neuren Today

- Focus on three very promising late stage clinical candidates
- Grant funded development of preclinical candidates with the view to partnering
- Management focus on creating shareholder wealth through the fast and efficient progress of our clinical trial programs

The Year in Review

Achieved:

Capital Raising and Business Development

- Raised AU$7.1M in January 2008
- Secured US$4M US Department of Defense funding for NNZ-2566 Phase II
- Acquisition of Hamilton and Motiva™
- Leading US life science investors join share register

Team Changes

- New joint-CEOs appointed
- Reorganised in-house pre-clinical team

The Year in Review, continued

Trial Progress

- Glypromate® trial under US IND enrolment on target with 272 patients and positive DSMC safety review
- NNZ-2566 successful Pre-IND meeting with an IND filing pending in Q3 2008
- NNZ-2566 Phase II sites and world-class investigators recruited
- Motiva™ Phase II under an open IND, and a new protocol being finalised and study set up activities underway

Product Development Status

Current stage of program

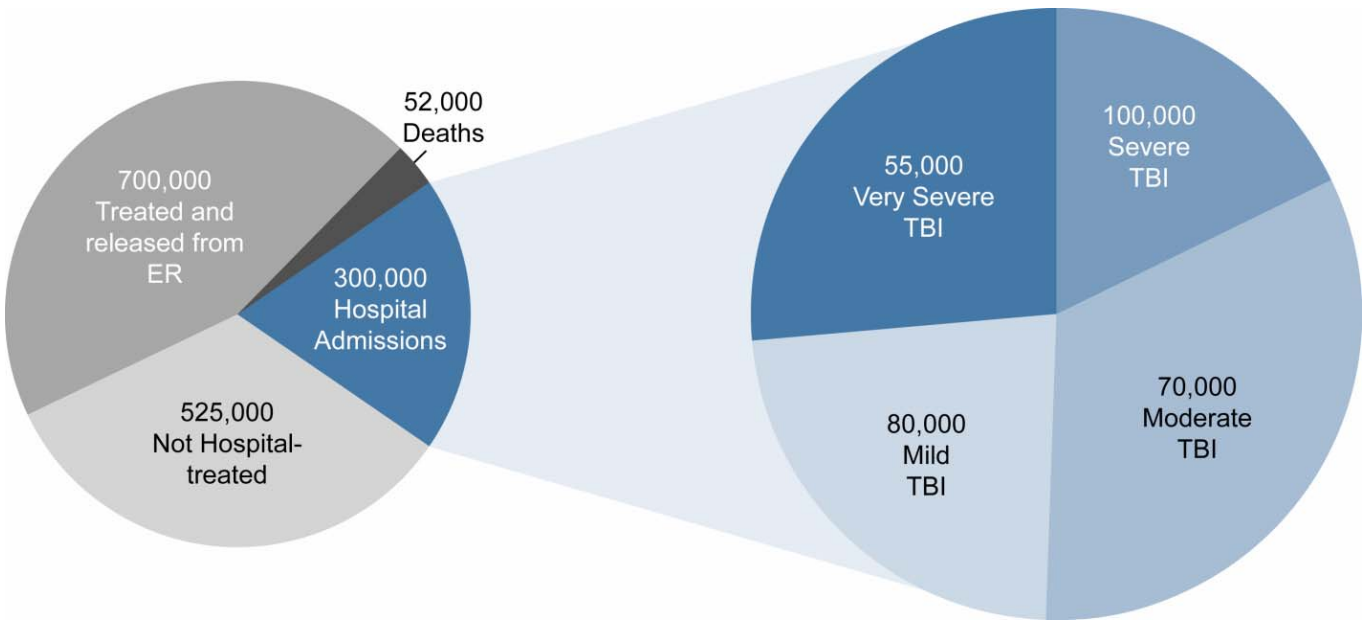
Lead Programs – central nervous system and brain injury	Preclinical	Phase I	Phase II	Phase III
Glypromate® – Cognitive impairment post cardiac bypass surgery				**Pivotal results expects Q2 2009** PIIIb in 2010
Motiva™ – Post Stroke Apathy and Depression			**PIIb results expected Q4 2009**	PIII to begin 2010
– Post Traumatic Brain Injury Apathy and Depression			**PII to begin Q1 2009, results in early 2010**	
– Parkinson's Disease Apathy and Cognitive Impairment			**PII to begin Q3 2009, results in 2010**	
– Epilepsy (specific indication to be confirmed)			**PII to begin Q3 2009, results in 2010**	
NNZ – 2566 (IV) – Traumatic Brain Injury		**PII to begin Q3 2008**		PIIb/III to begin 2010
Preclinical Programs				
NNZ – 2591 (DKP) – Parkinson's Disease and Dementia				
NNZ – 4945 (NRP) – Neuropathy				
Macrocyclics – Neuroprotection				
Anti-TFF mAbs – Oncology				
Anti-hGH mAbs – Oncology				
GH Variants – Metabolism				

Motiva™

- **Dysmotivational syndrome common to many acute and chronic CNS disorders**
  - Results from damage or neurodegeneration, particularly in the frontal lobe
  - A primary obstacle to rehabilitation and improved functional performance
- **Large and unmet need**
  - Recognized need but no drugs approved for the indication or effective off-label
  - No competition from drugs in development or Phase IV studies of approved drugs
  - Potential patient population of >4 million patients (depression, AD, PD, stroke, schizophrenia, TBI)
- **Significant upside potential**
  - Revenue estimate of US$~700m 5 years post-launch
  - Target providers are virtually all psychiatrists and neurologists
  - Potentially strong pharmacoeconomic justification for third party payers
  - FDA approval path fairly straight forward

NNZ-2566

- Traumatic brain injury (TBI) is a major problem
- 1.5 million head injuries per year in the US
- 850,000 mild-moderate, 155,000 severe
- US$50 billion in direct and indirect costs to healthcare system
- No approved therapy and few drugs in development



Pre-IND Meeting: 21 May 2008

- **Met with Russell Katz, MD (Director) and medical, pharmacology/toxicology, Chemistry reviewers from Neurology Products Division**

- **Chemistry Manufacturing and Controls (CMC)**
  - no concerns expressed

- **Regulatory**
  - Fast Track status likely to be granted
  - Orphan Disease status possible
  - Single pivotal trial possible with very robust and persuasive results

- **Clinical**
  - Selected global outcome measures, neuropsychological outcomes and physiological outcomes (cEEG and biomarkers) acceptable for Phase II
  - Open to use of novel endpoints (e.g., seizures, neuropsychological outcomes) in pivotal trial with evidence of clinical benefit for patients
  - Confirmed that there are no a priori standards for magnitude of effect and that, in the TBI indication, a small but clinically meaningful effect could be approvable

World-Class NNZ-2566 Advisory Team

- **Ross Bullock, MD, PhD**
  - Professor and Director of Neuroscience Intensive Care, Division of Neurosurgery, University of Miami; leading expert in TBI clinical trial design and execution
- **James Ecklund, MD (COL, USA, retired)**
  - Chief, Neurosurgery, Fairfax Inova Medical Center; former Chief, Neurosurgery, Walter Reed Army Medical Center and Professor, Department of Neurosurgery, Uniformed University of the Health Sciences
- **COL Geoffrey Ling, MD, PhD**
  - Program Manager, DARPA/Defense Science Office; previously, Professor and Acting Chair, Department of Neurology, Uniformed University of the Health Sciences
- **COL Charles Hoge, MD**
  - Director, Division of Psychiatry and Neurobiology, Walter Reed Army Institute of Research; Army psychiatrist and epidemiologist and leading expert on military TBI and PTSD
- **Frank Tortella, PhD**
  - Chief, Dept of Applied Neurobiology, Walter Reed Army Institute of Research; leading expert in experimental pharmacology of TBI
- **Paul Vespa, MD**
  - Associate Professor of Neurology and Neurosurgery and Director of Neurocritical Care, UCLA Medical Center; leading expert on EEG monitoring in TBI
- **Jeffrey Vaught, PhD**
  - Executive VP, Research and Development, Cephalon, Inc.; expert in regulatory development of drugs for CNS conditions

Glypromate®

- **CABG and CPB result in over 350,000 patients with persistent cognitive impairment**
  - Equivalent to the difference in function between a 40-year old and a 60-year old
  - >50% impaired at discharge, >20% at 6 months, >40% at 5 years(1)
  - Primary factor diminishing quality-of-life benefits of the surgery
  - Increases risk of Alzheimer's disease(2)
- **Significant pharmaco-economic benefit**
  - Potential to reduce costly utilization of hospital/intermediate care services and total cost of care
- **Unmet medical need**
  - Accepted target for therapeutic intervention by FDA and EMEA
  - Defined as a therapeutic goal by the ACC and AHA
  - No approved drugs (US$1.5 billion worldwide market opportunity)

(1) Newman et al. Longitudinal Assessment of Neurocognitive Function After Coronary Artery Bypass Surgery. *New England Journal of Medicine*, 2001; 344(6):395-402.
(2) Lee et al. Assessment of the emergence of Alzheimer's disease following coronary artery bypass graft surgery or percutaneous transluminal coronary angioplasty. *Journal of Alzheimer's Disease*, 2005; 7:319-324.

The Market Opportunity

- Three compounds with few or no competitors
- Indications with a large, unmet need (Coronary Artery Bypass Grafts, Traumatic Brain Injury, Apathy)
- Cumulative conservative $US3bn estimated market
- Compounds in late stage clinical development
  - Proven human efficacy in Motiva™
  - Glypromate® in pivotal Phase III trial
  - NNZ-2566 to enter Phase II trial, with fast track status
- Major milestones to development already met
  - Safety
  - CMC scale up
  - Open IND for Motiva™ and Glypromate ®

The Year Ahead

- Resolve long-term capital needs to the benefit of all shareholders
- Promising lead compounds Glypromate® , Motiva™ and NNZ-2566 on track for major valuation milestones
    - Confirmed efficacy of Glypromate® in Phase III / major efficacy trial
    - Confirmed efficacy of Motiva™ in Phase IIb – moving into pivotal trials (Phase III)
    - Confirmed efficacy of NNZ-2566 in Phase II – moving into pivotal trial under Fast Track
- Confirm significant partnering opportunities for pre-clinical pipeline
- Management's total focus is the creation of shareholder value, minimizing our risks and maintaining tight control over our costs.

Future Milestones

	Timing	Status
• **Glypromate®**		
– 100 patients data safety review	Q2 2008	✓
– 300 patient data safety and sample size review	Q4 2008	on track
– Completed recruitment	Q4 2008	on track
– Announce results	Q2 2009	on track
• **Motiva™**		
– Form committee around clinical strategy	Q2 2008	✓
– Complete amended protocol	Q3 2008	on track
– File protocol amendment	Q3 2008	on track
– Start Phase IIb in post-stroke psychiatric sequelae	Q3 2008	on track
• **NNZ-2566**		
– Pre IND Meeting	Q2 2008	✓
– IND submission	Q3 2008	on track
– Initiate NNZ-2566 Phase II	Q3 2008	on track
– Results	Q1 2010	on track

Financial Snapshot

ASX code:	NEU
Shares on issue:	219.96 million
Market Cap:	~ $24M
Cash on hand:	A$4.2M (31 March)
Number of employees:	16
Top 20 shareholders:	> 67 % of shares

Summary

- An emerging global leader in treatments for central nervous system disorders and brain injury
- Three very promising late stage clinical candidates moving closer to registration
- Confident we have a very promising year ahead of us

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