living cell technologies™

CEO Presentation to AGM

Professor Bernard Tuch

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Agenda

- Cash Position 2021
- Update NTCELL® for Parkinson's
- DIABECELL®
- LC-002 for Migraine
- LP-003 for Obesity

LCT Cash Position

- Dec 2021 ~ $5M, compared to ~$2M in Dec 2020
- NTCELL®
  - Funding of $3.5M obtained with assistance of 180 Markets to initiate a 3-year study of early to mid stage Parkinson's disease to delay or halt natural disease progression
  - Rights issue to be launched on Monday seeks to raise $3.8M
- Callaghan Growth Grant ended in March 2021. Received $247K
  - Replaced by R & D Incentive and Callaghan top up which expires March 2022; 20% rebate to be applied for Dec 2021
- R & D Tax credit received $454K

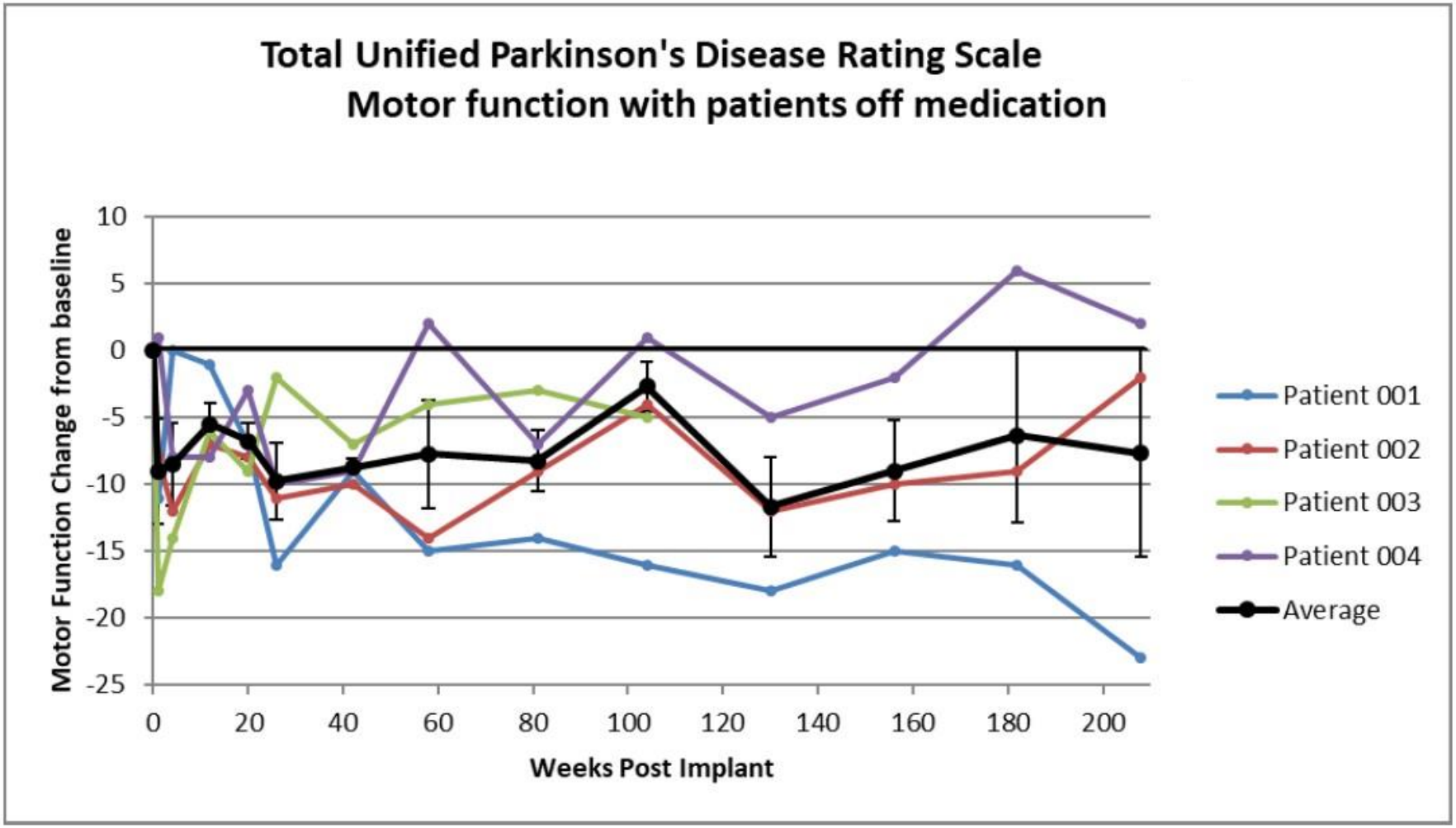
NTCELL® for Parkinson's disease

NTCELL is Encapsulated Choroid Plexus Cells

- Designated pathogen-free herd of Auckland Islands pigs
- Surgical removal of relevant brain tissue (choroid plexus) from piglets
- Tissue digestion to form cell clusters
- Encapsulation of cell clusters
- Microcapsules have pores which allow entry of nutrients but not immune cells, and exit of waste products and growth factors

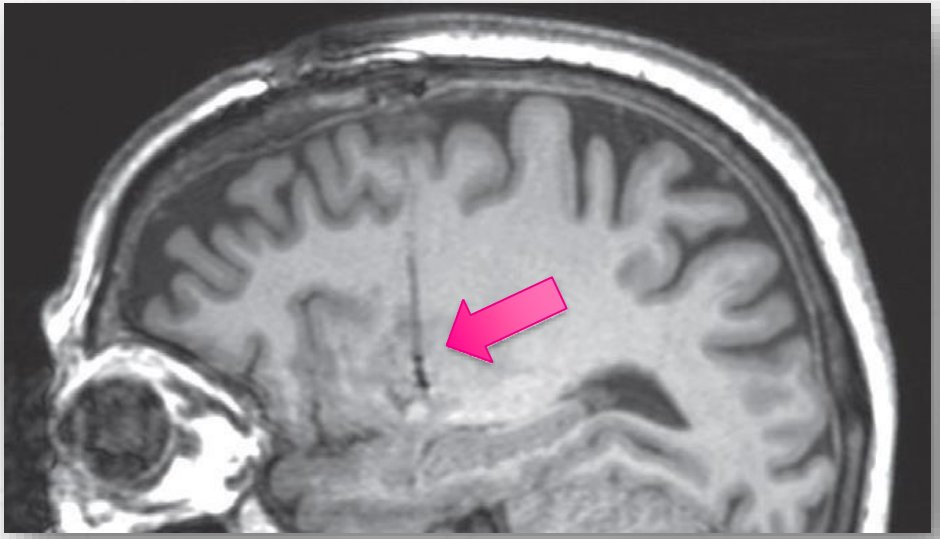
Pig choroid plexus: in the brain *removed* *in microcapsules*

Clinical Development
Phase I/IIa – 4 Year Follow-up Data



Clinical Development
Phase IIb Data – Protocol

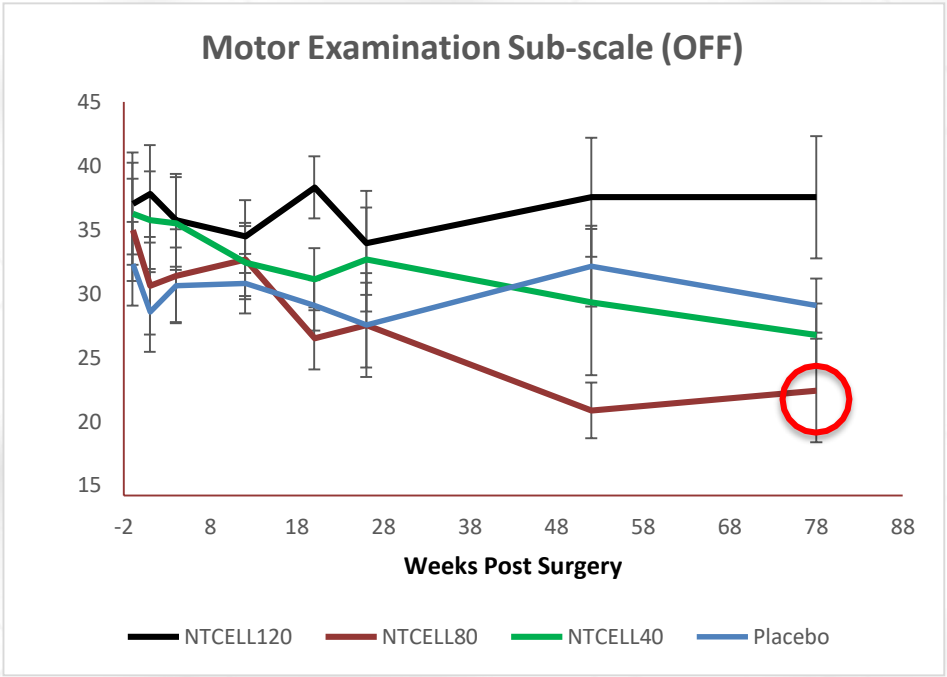
- The study consisted of three groups of six patients
- All patients were in mid stage of Parkinson's disease
- Two patients from each group had sham surgery with no NTCELL implanted, to act as a control.
- Group 1 received 40 microcapsules of NTCELL implanted on each side of the brain; Group 2 received 80 microcapsules; and Group 3 received 120 microcapsules.

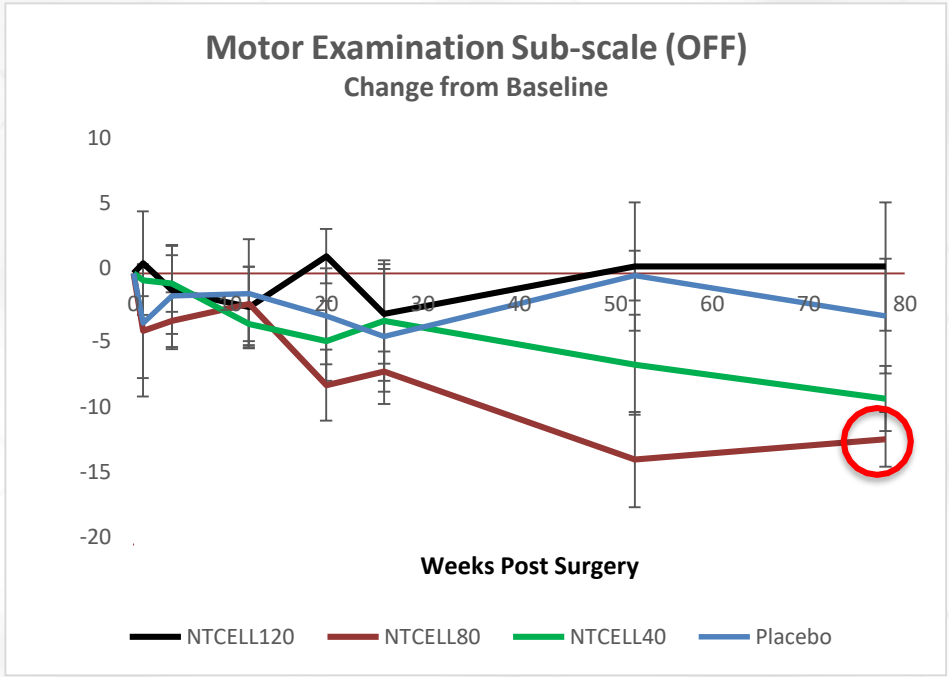


Sagittal MRI showing the cannula tract. Implanted NTCELL microcapsules are distributed through the putamen at the end of the tract.

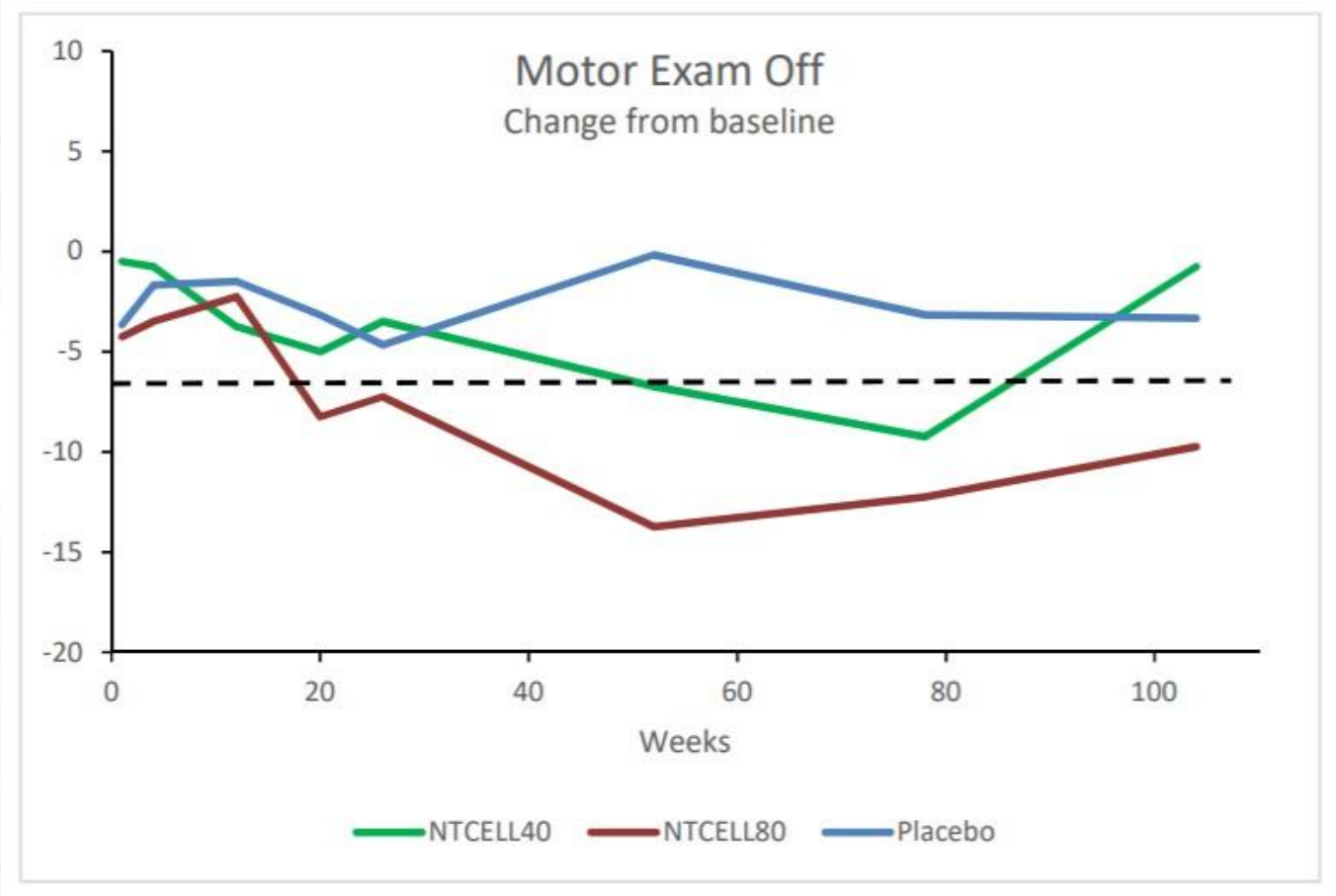
UPDRS Part III Off (Motor Examination) 78 Weeks Follow-up

- 7 point benefit in 80 capsule group vs placebo (p = 0.1)
- 12 point benefit in 80 capsule group vs baseline (p = 0.01)
  - Met primary efficacy clinical endpoint





UPDRS Part III Off (Motor Examination)
2 Year Follow-up



Clinically Relevant Effect: <-6.45 points from baseline

Third Clinical Trial

- Tissue source from designated pathogen-free (DPF) Auckland Island Pigs bred and maintained in NZeno facilities, Invercargill
- Choroid plexus cells removed in GMP facilities
- Flown to GMP manufacturing facility where encapsulated using alginate
- Regulatory approval required from Human Research Ethics Committee and Therapeutic Goods Administration
- This is likely to be the first Australian xenotransplantation trial with living cells
- Planned site of clinical trial is Royal North Shore Hospital (RNSH), Sydney where a state-of-the-art PET scanner is being installed. This scanner can quantitate the number of dopaminergic cells, adding a level of sophistication not previously readily available
- Professor Carolyn Sue is Director of Kolling Institute located at RNSH complex

Third Clinical Trial

- Patients in the trial will be in early to mid stage Parkinson's disease
- This is different from patients in Phase I/IIa (late stage) and Phase IIb (mid to late stage)
- Aim is to modulate disease progression. NTCELL hypothesized to be neuroprotective
- ~50 recipients, (c.f., 4 in Phase I/IIa and 18 in Phase IIb) Half will receive NTCELL and Deep Brain Stimulation (DBS) and the other half DBS alone
- It is anticipated it will take two years to set up and optimize the supply chain
- First implant planned for 2024
- Three year follow up is required to assess the full effect of the treatment

DIABECELL® for Type 1 Diabetes

DIABECELL Progress

Otsuka Pharmaceutical Factory (OPF)

- OPF continued commitment to DIABECELL development program in USA
- Funding > NZD 10M per year
- Monkey safety and efficacy studies
- LCT has 5% royalty on eventual product sales that use Immupel technology

LC-002 for Migraine

CGRP Strongly Linked to Migraine

- Calcitonin gene-related peptide (CGRP) – 37 amino acid neuropeptide – is found in sensory nerves and modulated pain
- Levels are higher in migraine sufferers
- CGRP triggers migraine

Antagonists needed to treat migraine

- LCT worked with experts at The University of Auckland to develop a long-acting antibody (LC-002) against CGRP using a lipidated agent to try and achieve this
- Lipidation extends half life and protects peptide from proteolytic degradation
- Initial pharmacokinetic data indicated LC-002 is rapidly absorbed after subcutaneous injection, with peak plasma concentration at 10mins
- This offered no advantage over what is already on the market

LCT withdrew from the project in March 2021

LP-003 for Obesity

All Diets Fail Due to Hunger:
LP-003 Injections Blocks CNS Hunger Centre

- Pramlinitide is marketed for treatment of obesity but needs to be injected 3 times a day.
- A once daily version would be a practical alternative.
- Lipidation of the peptide theoretically could achieve this goal.
- Initial experiments in rodents showed decreased eating in the short term.
- Experiments discontinued to concentrate on the migraine project with several other products on the market that can be administered daily or weekly and block the CNS hunger centre.

LCT withdrew from the project in March 2021

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Thank you

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