



Cell-Based Therapy for Type I Diabetes

ASX: LCT - OTCQX: LVCLY

**Auckland
April 2010**

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and New Zealand Trade & Enterprise

Safe Harbor Statement

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Lead Product: DIABECCELL[®]

Encapsulated Porcine Pancreatic Islets

*In development for normalization of blood glucose
In Insulin Dependent Diabetes
Implantable without immunosuppression*



ASX : LCT and OTCQX : LVCLY

Auckland, New Zealand
Sydney, Australia

Contents: neonatal porcine pancreatic islets, ultrapure sodium alginate, polyornithine. Dose: 150,000 islet equivalents in 150 ml for transfer into saline prior to laparoscopic administration into the abdomen.



Investing in LCT today

World first lead product DIABECCELL[®] in human clinical trial with positive results

Unique high health status pigs

World's first and only internationally accredited diagnostic laboratory to biocertify pigs

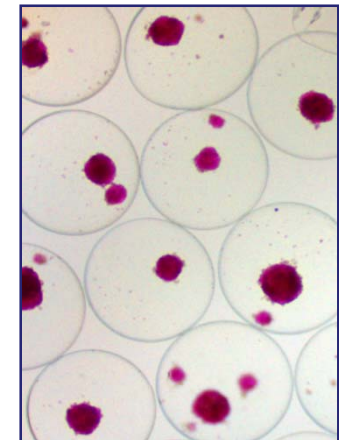
Pilot GMP manufacturing plant with NZ government support for upscaling technology

14 families of patents for lead product, product pipeline and platform

Research and option agreements for Centocor (J & J)
to license LCT encapsulation technology

Registration of microcapsules as delivery device in Russia

A company in growth phase



DIABECCELL[®] Advancing to Commercialization

- **Phase I/IIa has achieved objectives**
 - study in Russia with 8 patients
 - safe to implant
 - safe to repeat implant
 - clinical benefit: 2 patients off insulin
 - attained proof of principle for efficacy in humans
 - microcapsule registered
- **Phase II progressing with exciting results**
 - first 4 patients completed with no significant adverse events due to treatment
 - independent safety and monitoring board approves advance to higher dose
 - clinical benefit seen in unstable difficult to treat patients with diabetes
- **Clinical trial plans**
 - LCT is presently negotiating to conduct further trial in another jurisdiction
 - Obtain pivotal data for registration of DIABECCELL[®]

DIABECCELL[®] : a high value product

- Significant revenue from initial market penetration
- Assuming price at AUD 150,000 per treatment
- Breakeven point: treatment of 78 patients
- **Projected Net Income Before Tax**
Taking into account revenue, cost of production, admin costs

Number of patients	Net Income
100	3.7M
250	21.3M
1000	109.6M
- Comparisons:
cost of human islet transplant A\$250,000 per patient

Porcine Based Pipeline Products

Multiple products from each pig

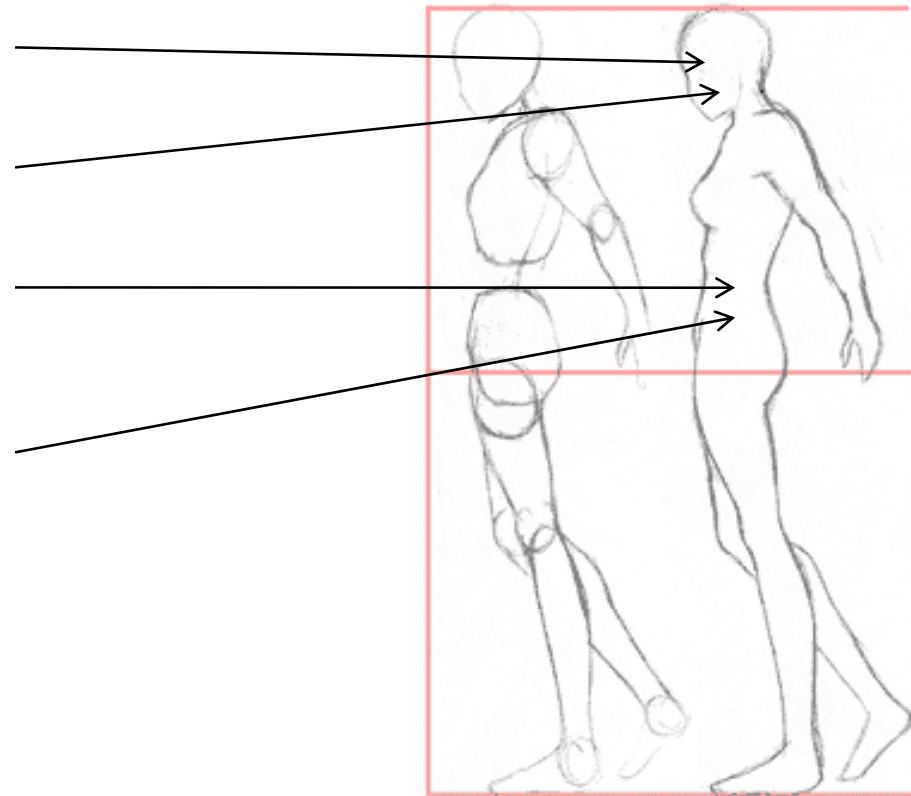
NTCELL for Parkinson's
Huntington's
Hearing Loss

DIABECCELL® for type 1 diabetes

Liver Cells
Fac8Cell for Bleeding Disorders

Porcine Biomaterials (Partner)
Heart valves, collagen, Biologics

Encapsulation technologies



Near Term Milestones To Enhance Value

From Pigs to Clinic

2010

Q3

Complete implants for patients in NZ trial
New trial underway

Q4

Report Phase II – 8 patients from NZ trial

2011

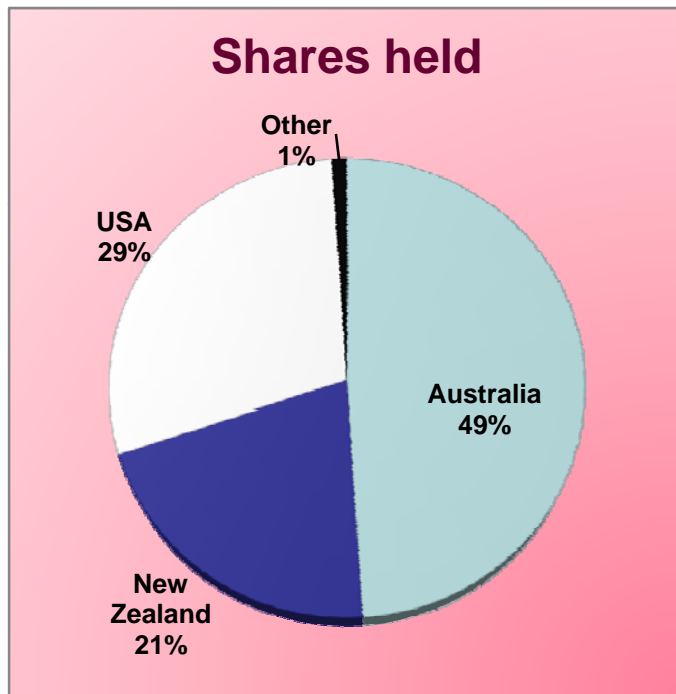
DIABECCELL® dose and dosing regimen
finalized for pivotal trial
Manufacturing facility – further upscale
Expand pig breeding

2012

Completion of pivotal trial for registration



Current Stock Profile



Outstanding shares

272.5m

ASX	88%
OTCQX (ADR)	12%

Trading volume last 3 months

ASX	66%
OTCQX (ADR)	44%

Outstanding options

as percentage of outstanding shares

12.5%

Summary for Investment Portfolio

Financial Value

Peak year sales
Over \$ 1 billion potential

Years to Commercial
Near term: 3 years

Market exclusivity
Long term
Not easily replicable

Corporate Strategic Value

Unique selling proposition:
World leader

Scientific innovation
Unique, next generation product

Fits with broad markets
Diabetes
Parkinson's

Success Probability

Development Costs
\$60 M invested to date

Decreasing Technical Risk
Positive clinical data

Regulatory
NZ government
Internationally reviewed
Data Safety Monitoring



Prof Bob Elliott
Medical Director

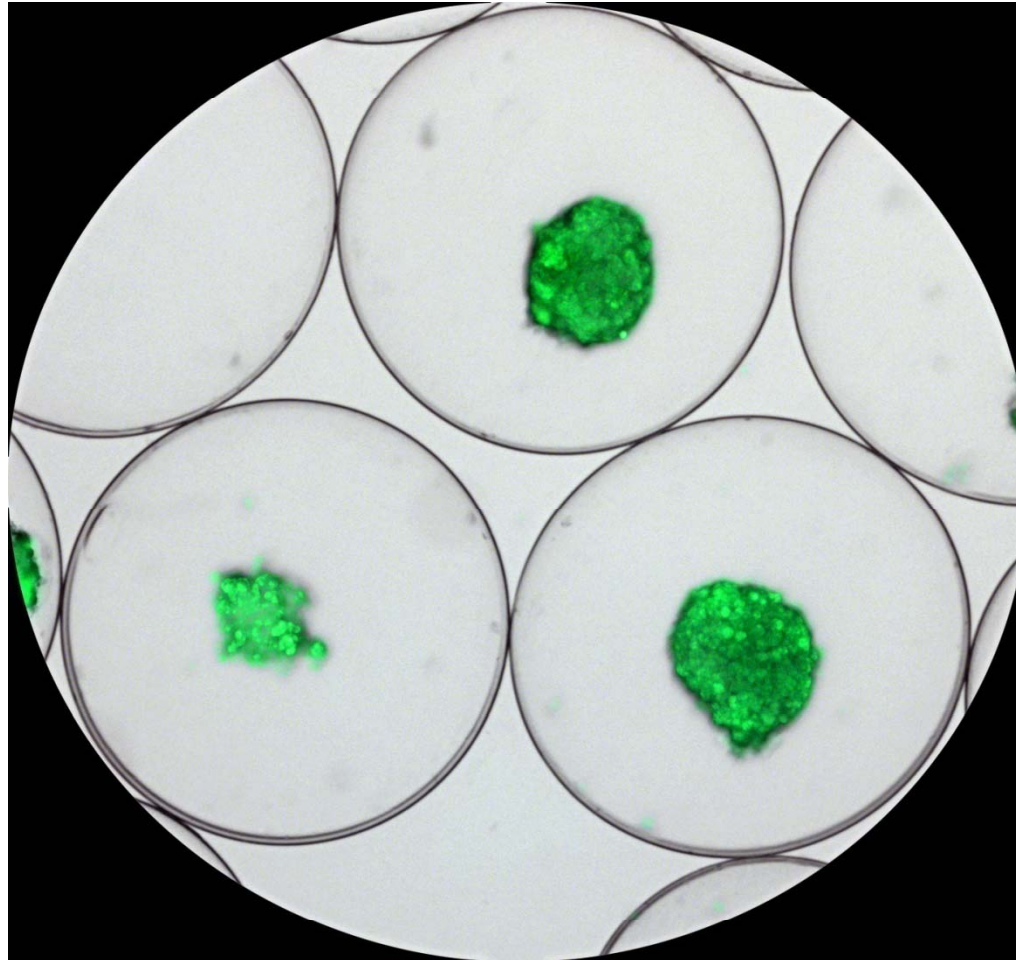
What are We Doing Right Now?

- Main efforts:
 - New treatment for diabetes;
 - Developing new treatment for Parkinson's Disease.

Diabetes Project

- Replace the diabetic person's dead insulin producing cells with new ones from newborn pigs.

Encapsulated Islet



Insertion of Cells (Russia)

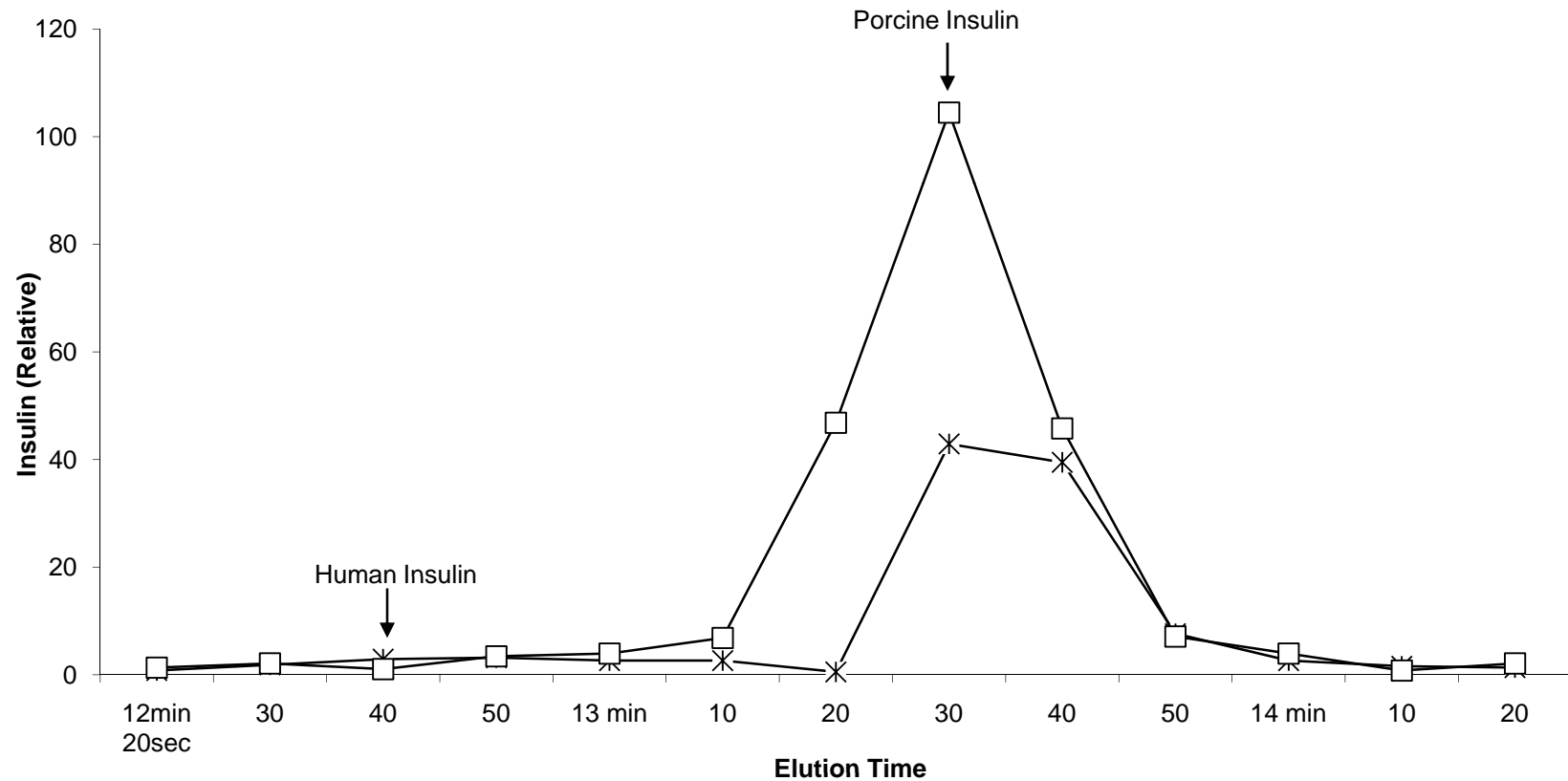


DIABECELL®

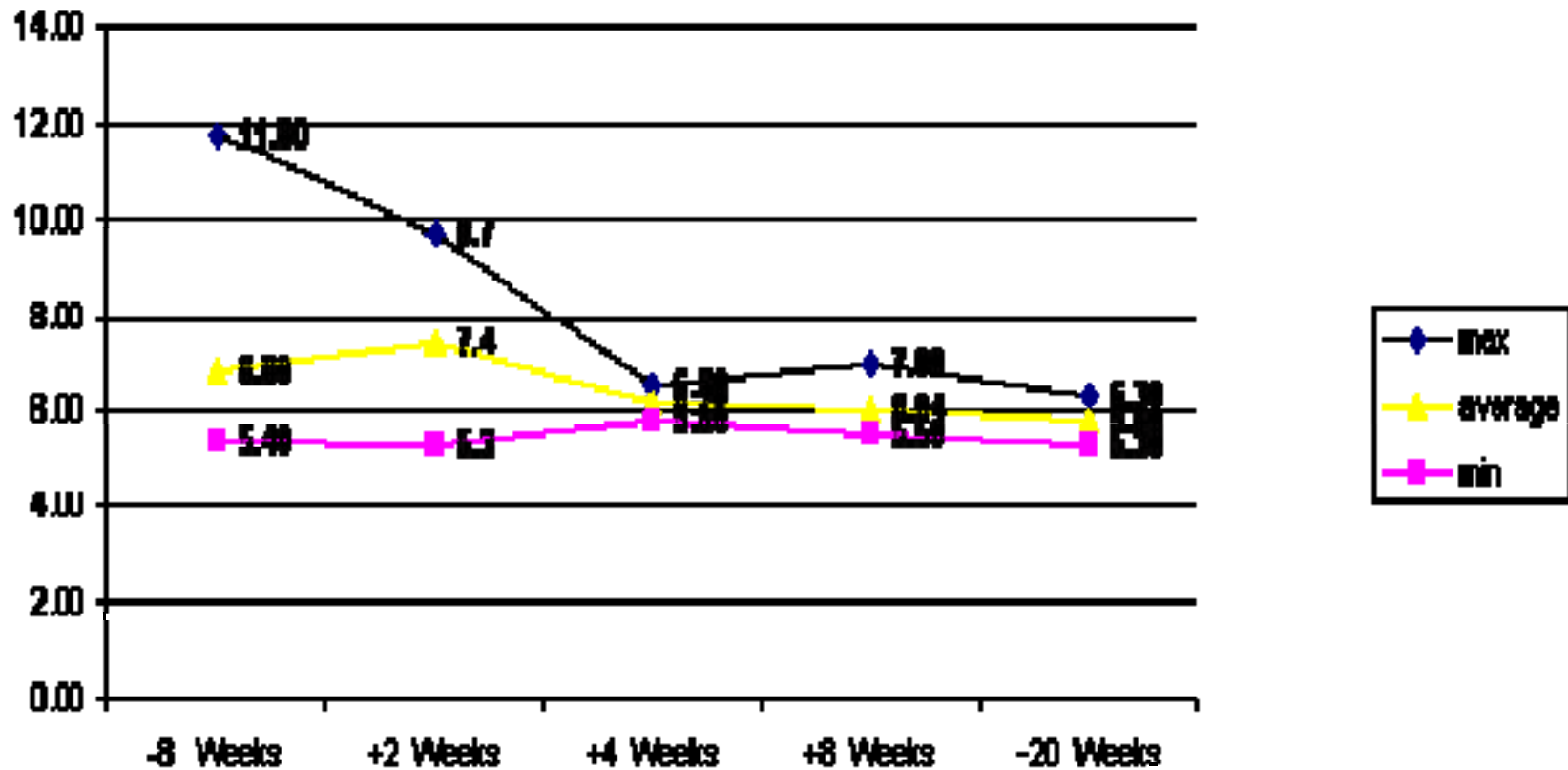


Pig Insulin in Blood

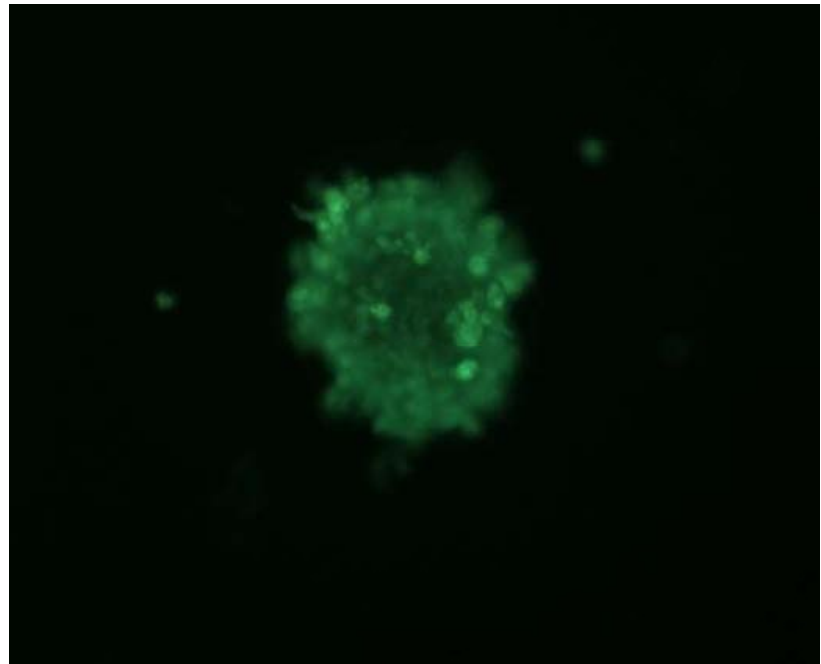
Insulin Detection in Post HPLC Eluates
Patient# 1 before and after glucagon stimulation



Showing reduction in mean blood glucose and range of excursions despite minimal post implant insulin dose reduction



Recovered Cells



Russian Trial Update

First Transplant

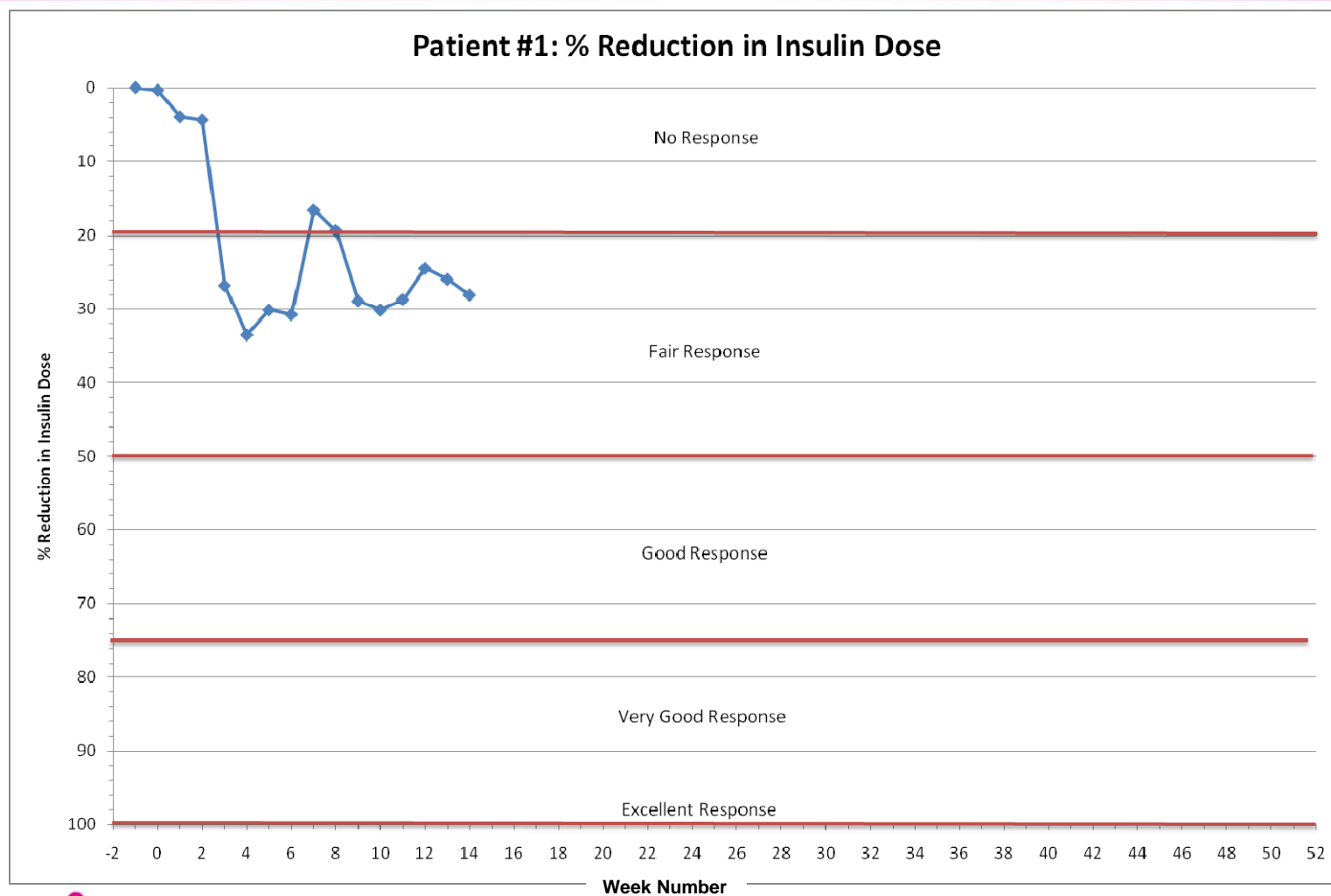
Patient #	Yes	No
1	✓	
2	✓	
3	✓	
4		✓
5	✓	
6	✓	
7		✓

Russian Trial Update

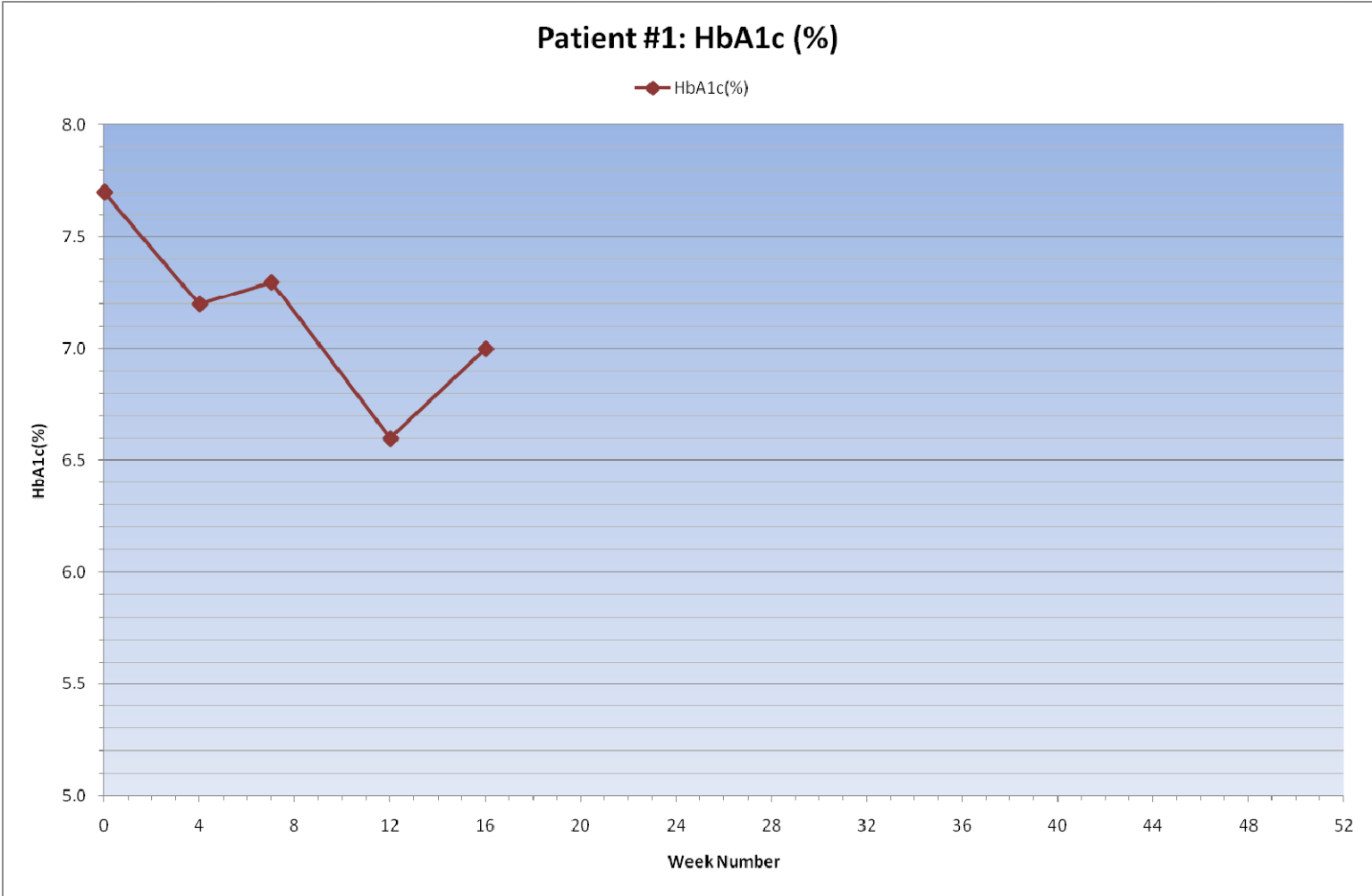
Second Transplant

Patient #	Yes	No
1	✓	
2	✓	
3	✓	
4	✓	
5	✓	

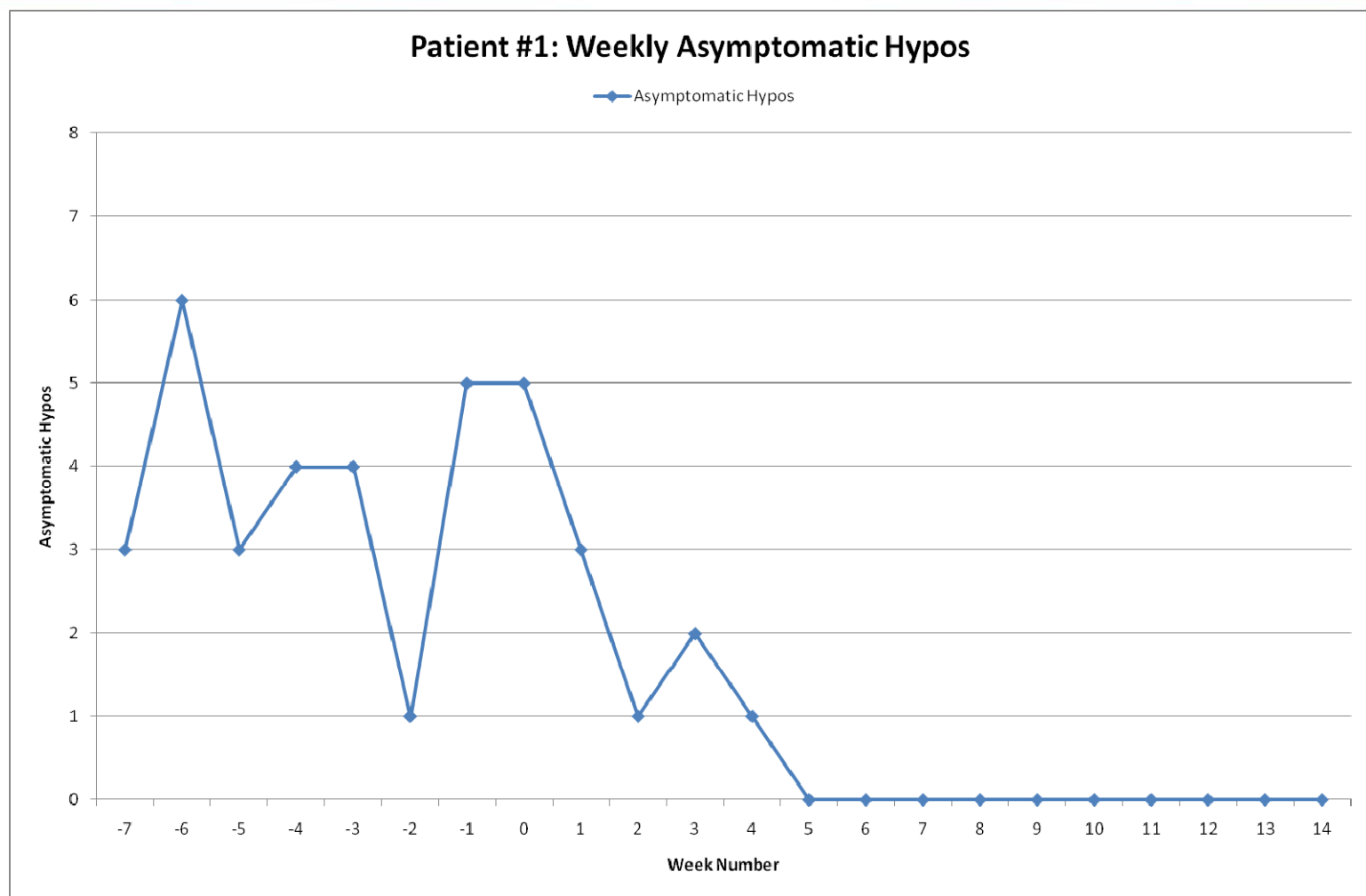
New Zealand Trial Update



New Zealand Trial Update



New Zealand Trial Update



Parkinson's Disease

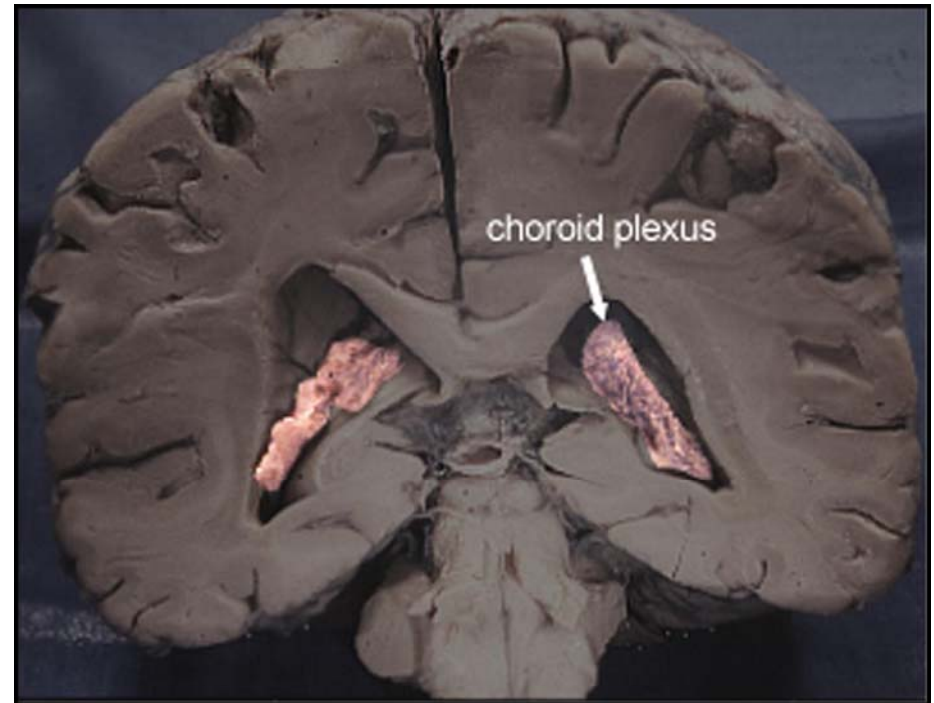
- Parkinson's Disease results from the progressive **loss of brain cells** mostly in parts of the brain concerned with movement, that make the nerve transmitter substance **dopamine**.

What are We Doing?

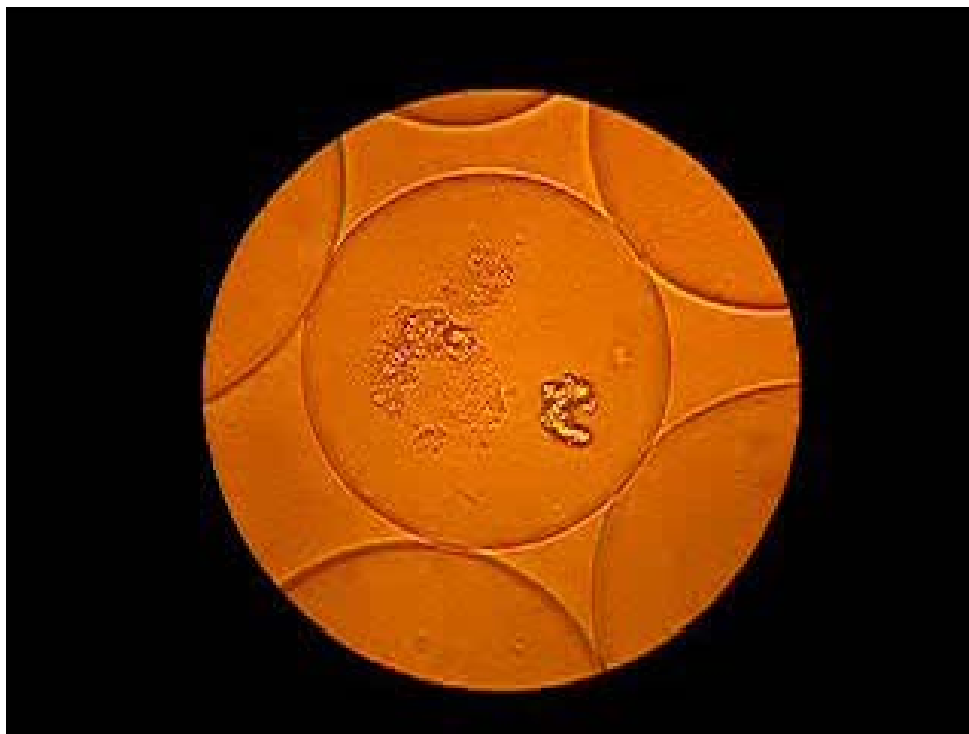
- Trying to repopulate the part of the brain that has died out with new cells – by stimulating normal brain replacement.

Some Background Facts

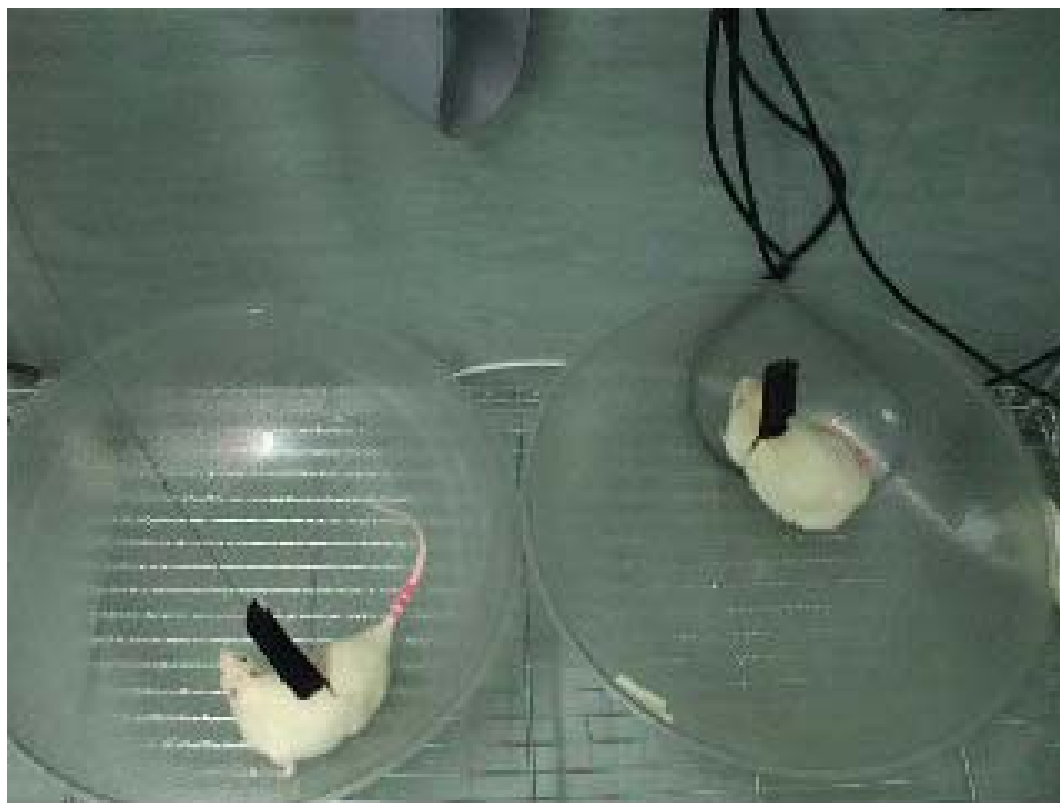
- The **choroid plexus** is a small organ hanging in the normal large cavities ('ventricles') within the brain. One of its functions is to make the fluid ('cerebrospinal fluid'-CSF) that bathes the interior of the brain and percolates thereafter over the entire brain and spinal cord surface.



Choroid Plexus



Choroid Plexus



What are We Doing?

- Similar study in monkeys now underway.