

LCT's encapsulation technology attracts international pharmaceutical company

LCT is a world-leader in the field of encapsulation of living cells. LCT has a research agreement with US-based Centocor Research & Development, Inc. The collaboration was announced in late December, and will allow Centocor access to LCT's encapsulation technology for research and therapeutic purposes.

Chief Executive Officer, Paul Tan said the agreement with Centocor has the potential for ongoing collaboration and future licensing opportunities.

Why is the industry interested?

Companies are interested in LCT's technology because of its novel approach and applicability to a variety of disease states.

What is LCT's encapsulation technology?

LCT's encapsulation technology is based on a patented process which involves placing living cells in a droplet of seaweed-derived gel. Each droplet or capsule contains a cluster of cells – such as pig islet cells that produce insulin. Each capsule is the size of a pin head hence it is often referred to as microcapsules or microspheres.

Why are people interested?

People are interested in LCT's technology because of its novel approach. Encapsulation allows cells to be safely implanted into patients without the need for immunosuppressive drugs to prevent rejection. These cells act to replace or repair damaged tissue in patients.

How do the capsules work?

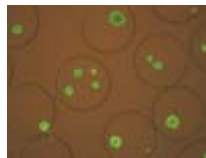
LCT's alginate capsules consist of three layers designed to prevent the host's immune system from detecting the foreign cells held within. The encapsulation technology works by allowing cells to function normally, nutrients are able to diffuse into the capsules and secreted products such as insulin are able to move out. This level of functioning ensures the cells' long term survival.

What are the implications of a potential licensing of LCT's technology?

We have always known that there is tremendous value in the broad applicability of our technology. Through licensing, we create a consistent revenue stream into the company and the potential for further agreements to be reached with therapeutic and research based companies. The financial benefits of such collaborations would not only be used towards our ongoing clinical trials, but they would also be passed on to our shareholders.



Digitised photo of droplets of encapsulated cells



Viable islets in capsules

Note from the CEO

We start 2009 in a world that is changing dramatically. In this climate, LCT has to make sure that we have a business strategy that will take DIABECCELL® to clinical and commercial success. This is our commitment despite the negative sentiments about the current global economy expressed daily in the news media. DIABECCELL® remains our lead product for treating insulin deficient diabetes.

Indeed, LCT's medical director, Professor Elliott recently assessed the latest clinical information and noted from the still preliminary data that DIABECCELL® clearly provided long term benefit, up to 68 weeks. The potential for even better results with higher doses compels us to advance the trial. LCT's clinical trials in Russia and New Zealand are thus our highest priority for developing value for shareholders and the only way we can deliver the promise of a better future for people with diabetes.

LCT has been in discussions with advisors in Russia to outline a commercialisation route and business plan. To focus on this commercialisation plan, Dr Robert Caspari stepped down as CEO as activities in the United States are of lower priority. Dr Caspari remains a valued member of our board of directors. In resuming the responsibilities of CEO, I thank Dr Caspari for his work in 2008.

This newsletter also highlights new achievements with the encapsulated choroid plexus cells (NTCell). Funded by a grant from the New Zealand government, our neuroscientists have shown that NTCell implants benefit rats affected with brain lesions similar to Parkinson's disease in humans. NTCell remains in pre-clinical development and is poised for licensing and development with a partner as most of our current funds are conserved for DIABECCELL®.

You will also read in this newsletter that other groups have taken an interest in LCT's encapsulation technology. LCT has started a research collaboration with a major US pharmaceutical group - Centocor Research & Development, Inc. LCT is to place cells from Centocor into microcapsules so that the cells can be implanted to treat disease without immunosuppressive drugs. This creates the potential for a future licensing of LCT's technology to others who want to implant different types of cells, including stem cells, in a safe manner.

Finally, through the Rotary National Science and Technology Forum, LCT hosted a group of New Zealand and Australian students who gave up their holidays for a summer program to look at science in action before starting their university year. They were fascinated by how LCT's technologies might change the

Meet our Finance and Administration Manager

John Cowan joined LCT in October 2008 after spending eight years as Head of Finance and Facilities at the Auckland War Memorial Museum. Prior to this role, John was Chief Financial Officer at the University of Auckland and before that, Company Secretary and Chief Financial Officer at Mair Astley Holdings Limited; a New Zealand based publicly listed company with international operations.



John is a Fellow of Institute of Chartered Accountants of New Zealand and has worked in both the US and New Zealand.

What attracted you to LCT in the first place?

It was through LCT's Medical Director Bob Elliott that I first heard about LCT and I have followed the company's development for some time. I was attracted to the company's story and the opportunity to apply my financial and management skills and experience to such a promising biotech company.

How do you think your previous experience will help you to guide LCT through the coming 12 months?

I have more than 20 years' experience in financial management in the public and private sector, spanning a variety of market cycles. I also have experience in implementing efficient financial and IT systems as well as risk and currency management, which I can apply to LCT. I have worked on implementing policy frameworks which provide a control environment to guide staff and assist in achieving objectives. I believe the company has a very strong management team in place in Auckland and I look forward to being part of that team.

It will be a tough year for biotech companies. What will LCT need to do to not only survive but emerge successfully from this crisis?

It will be a challenging year for most companies but I believe LCT is taking a very realistic approach to preparing for the year ahead. We have started 2009 with a leaner management structure and will be making our critical decisions out of New Zealand. We have a strategy in place to ensure that spending is limited and all resources will be poured into delivering clinical results to the timeframes we have indicated. LCT has a fantastic story with compelling technology and promising product opportunities. It's my belief that we will survive these turbulent times and add value to our shareholders along the way. I hope that we will continue to see encouraging results from our lead product DIABECCELL® which will ensure that we emerge as a success story in the next few years.

What are your plans for LCT in 2009?

In 2009, I will be working closely with Paul Tan to monitor the company's performance and cash burn and provide the right advice at the right times. My main focus will be prudently managing resources and assisting with streamlining our development efforts. I look forward to being part of such a dynamic and passionate team committed to making a difference to people living with diabetes.

NeurotrophinCell may be effective in Parkinson's disease

NeurotrophinCell (NtCell), one of LCT's pipeline products under development, was found to benefit rats with a disorder similar to Parkinson's disease.

lives of people with disease – something they could do as trained career scientists.

I trust you will find this newsletter both interesting and informative.

Best wishes,



Dr Paul Tan
Chief Executive Officer



What are your interests outside LCT?

My passions are tennis and fishing and I recently went on a fishing trip to the Hauraki Gulf, one of New Zealand's best fishing spots located just north of Auckland. My other interests are wine, viticulture and forestry.

What are you listening to at the moment?

I love listening to jazz but on my way to work I listen to the National Programme morning report. My wife Carol is listening to a Leonard Cohen CD she picked up at a recent concert, but all the tunes sound the same to me!

In the News

Date	Publication and Article
1 Dec	Biotechnologynews.net - Market Pulse: more volatility in the life sciences
9 Dec	Biotechnologynews.net - Market Pulse: sector volumes slow
11 Dec	Biotechnologynews.net - Bio briefs: LCT
12 Dec	NZ Press Association - Xenotransplant company enrolling NZ diabetics for pig implants
12 Dec	M2 Presswire - LCT reports positive results of NTcell in Parkinson's disease
13 Dec	Dominion Post - Pig Cell Recruits
15 Dec	Biotechnologynews.net - Market Pulse: Ventracor shares collapse, but a good week for some
18 Dec	M2 Presswire - Living Cell Technologies partners with Centocor for encapsulation technology
19 Dec	Global Insight Online - Living Cell, Centocor Tie Up R&D Alliance

Important facts about NtCell:

- NtCell is a live cell product containing brain choroid plexus cells which produce cerebrospinal fluid containing many different brain growth factors and proteins (neurotrophins) which support the survival and growth of brain cells.
- In LCT's studies, rats with induced Parkinson's disease had NtCell capsules implanted to help repair diseased brain tissue. Treated rats showed improvements in limb function and had significantly more surviving brain cells compared with rats in a control group.
- Parkinson's disease affects 107 people per 100,000 worldwide and occurs more frequently with increasing age. Parkinson's disease is caused by degeneration of the cells in the brain that regulate dopamine and the effects of the disease include increasingly frequent and pronounced tremors.
- NtCell is supported by a grant from the Foundation for Research Science & Technology, New Zealand government.
- Medical Director, Bob Elliott says LCT is now evaluating the potential application of NtCell in other brain diseases.

Rotary National Science and Technology Forum at LCT

LCT was approached by Rotary to take part in its 2009 Science and Technology Forum and hosted students, who were accompanied by Rotary advisors, on 13 and 21 January 2009.

LCT's neuroscience coordinator and organiser of the Rotary event, Marilyn Geaney, said, "We are very pleased to take part in this forum. The event is designed to give outstanding Year 12 science students a chance to experience a wide range of scientific disciplines before commencing their 13th year of study. The intention is that students will emerge from the forum with an enhanced appreciation of science and technology in the community and a better idea of the tertiary courses that they wish to pursue.

"We provided the participating students with an overview of LCT's history, technology and research and development efforts. This included a guided tour of the quality control laboratories and manufacturing facilities. In addition, we set up interactive stations for observing live cultures, which the students really enjoyed.

"The students were very enthusiastic. From the questions and comments it was clear they enjoyed being in a facility where science is not confined to school textbooks. They saw that scientific work at LCT doesn't only end up as a published science report but the work aims to produce a therapeutic treatment that can change the life of people with diabetes or a neurological impairment.

"Our task is to impress on them that this is something they can do as a career. We enjoyed having them!" said Marilyn.

The Science and Technology Forum is sponsored by Rotary each year and ran from 10 – 24 January 2009.

"A quick note of appreciation – the students came home last night fair buzzing – thank you all for the effort you all put in - it gave the students a fascinating insight and was very much appreciated - many were stunned to see that world-leading stuff is happening in New Zealand - they hadn't quite believed it was true!"

*Peter Best
Director - The Rotary National Science and Technology Forum*

Keeping You Informed

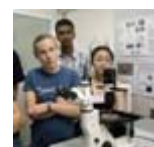
China to join New Zealand at forefront of Xenotransplantation

In November last year, Chinese Professor Wei Wang hosted a meeting between the World Health Organisation, the Chinese FDA (known as the SFDA) and the US Food and Drug Administration (FDA) to formulate updated SFDA guidelines for using porcine cells to treat human diseases.

New Zealand regulator, Medsafe, was also invited to attend, due to its experience at assessing xenotransplantation studies in humans according to current guidelines.

Dr Paul Tan, LCT's CEO who visited Prof Wang in October 2008, said, "This is evidence of the positive changes that are taking place around the world. There is a growing agreement about the low risks posed by xenotransplantation – risks that are far outweighed by the benefits of researching and developing treatments for human diseases.

23 Dec	News Bites Online - Living Cell CEO steps down
Jan 09	UK Daily Mail - Parkinson's implant offers new promise
8 Jan	Biotechnologynews.net - Bio people: LCT
8 Jan	Southland Times - 'Pig palace' near completion
12 Jan	R&D Focus Drug Review - Living Cell Technologies licensing agreement
1 Feb	Biomedical Materials - Australia's Living Cell Technologies to collaborate with USA's Centocor
11 Feb	Biospace Online - LCT reports interim results showing sustained benefit with Diabecell implants for insulin dependant patients
11Feb	Scoop News Online - Sustained Benefit with DIABECCELL® Implants Living Cell Technologies



Images from the Rotary Event (see item left)

"As a result of the meeting held in November, further trials are planned by Prof Wang when the regulatory guidelines are updated in 2009.

"Our Medical Director, Bob Elliot, is in contact with Professor Wang, discussing possible ways for collaborating in clinical trials and developing LCT's products for the Chinese market," said Paul.

A centre for pig cell implants is to be established in Changsha, Hunan Province, China led by Professor Wei Wang. Professor Wang has previously conducted trials according to regulatory guidelines by injecting porcine islets into the liver using immunosuppressive drugs. LCT's CEO, Paul Tan was invited to visit the Chinese facility in November 2008.

Out of the lab: Clinical update

In February this year, LCT provided its most recent clinical update reporting positive interim results from its long-term follow up on diabetes patients in Phase I/IIa clinical trial of DIABECCELL®.

LCT Medical Director, Bob Elliott said, "The patients clearly benefited from the implants administered at the lowest dose and the second implant maintained this benefit. Remarkably none of the patients have had problems with clinically relevant episodes of low blood glucose. Most people with diabetes cannot attain this degree of blood glucose control shown by these patients without large swings of very low or high blood glucose levels that are often fatal.

"We can expect better outcomes with higher doses. The encapsulated cells offer not only an alternative but a physiological replacement therapy to provide new hope and improved lifestyles for people with diabetes."

The following findings were reported:

- A total of seven patients have now received DIABECCELL® implants.
- No remarkable adverse events were attributed to double implants.
- Two patients have received a single higher dose with no safety concerns to date.
- Good blood glucose control was maintained despite a reduction of 10%-38% in patients' required daily insulin doses.

For more information, refer to <http://www.lctglobal.com/media-resources.php> dated 11 February 2009.

Upcoming Events

March 2009: Dr Paul Tan and Dr Anil Anal presenting at NZBio 2009, Auckland.

April 2009: Regulatory Affairs Professionals Society (RAPS), San Francisco. LCT invited to talk on regulatory requirements for encapsulated cell therapeutics.

Disclaimer: This document contains "forward-looking statements" within the meaning of section 27A of the Securities Act of 1933 and section 21E of the Securities Exchange Act of 1934. Such statements are based on management's current expectations, but actual results may differ materially due to various factors including those risks and uncertainties mentioned or referred to in this document. Accordingly, you should not rely on those forward-looking statements as a prediction of actual future results.