PRIMA BIOMED LTD
Australian Cancer Treatment Company

Developing the world’s first Ovarian Cancer Therapy Vaccine

AGM Presentation - November 2009

Cell Therapy – A new paradigm for the treatment of cancer
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Prima BioMed (ASX:PRR) is an Australian biotechnology company focused on cancer immunotherapy, which stimulates the body’s own immune system to attack tumors.

Its lead product is the CVac™ ovarian cancer vaccine - a maintenance therapy vaccine administered post-surgery and post-chemotherapy to delay relapse and control metastases.

- Phase I and IIa clinical trials successfully concluded
- Planning & approvals for Phase IIb/III trials underway and trials to begin 2010

Prima’s extensive intellectual property portfolio originates from the Austin Research Institute, Melbourne. The Company’s strategy is to commercialise CVac™ into the multi-billion dollar global pharmacy oncology market and partner-out non-core immunology assets.

Cell Therapy – A new paradigm for the treatment of cancer
CVac™ addresses a major global un-met medical need

Ovarian cancer has a very high morbidity rate and currently there are no maintenance treatments commercially available

Global ovarian cancer treatment market estimated to be worth US$3.6b in 2010

Investigational New Drug (IND) application lodged with US FDA

Approval to commence Phase IIb clinical trial granted by FDA and trial to start early 2010

Phase IIb trial to be managed from prestigious Fred Hutchinson Cancer Centre in Seattle in the USA on a 60 patient population

Progressing rapidly to commercialisation of world’s first ovarian cancer vaccine therapy, CVac™
Investment Highlights

✓ Pursuing fast-track commercialisation in other jurisdictions outside US FDA
✓ Phase III clinical trial to be conducted in Europe, in 2010 also
✓ Have commenced selected treatment of patients in Australia
✓ World class scientific advisory team including Prof Ian Frazer, co-inventor of Merck/CSL’s cervical cancer vaccine, Gardasil™
✓ Leading pharmaceutical sector expert Dr Neil Frazer appointed Chief Medical Officer to oversee CVac™ clinical trials
✓ Company to also develop an oral delivery system for cervical cancer vaccine
✓ Company well funded; A$25.5m equity funding from US fund, SpringTree and A$11.25m raised from recent Share Purchase Plan
## Corporate Overview

### Issued Capital
- **ASX Code:** PRR
- **Shares:** 628.6M
- **Listed Options:** 127.4M (exercise price $0.02 on or before 31 Dec 2011)
- **Total Issued Securities:** 727.0M

### Price & Capitalisation
- **Share Price:** 15.5c (27/11/09)
- **2009 high:** 28.5c (08/10/09)
- **Mkt. Cap:** $97.6M
- **Cash Position:** $14.36M

### Board of Directors
- **Mr Ata Gokyildirim**  
  Chairman
- **Mr Martin Rogers**  
  Executive Director
- **Dr Richard Hammel**  
  Non-Executive Director

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Cell Therapy – A new paradigm for the treatment of cancer
Demand for CVac™

- The global market size of ovarian cancer is estimated to grow to **US$3.6b by 2010**
- Each year **73,000 women** are diagnosed with ovarian cancer in the US, Europe, Australia and Japan. **318,000 globally**
- Of this number, **only 10-20% survive beyond 5 years**
- A maintenance style treatment like CVac™ would be the first of its type in the market and would initially aim to take a conservative 10% of this ovarian cancer treatment market
- **A conservative 10% market share equates to approximately US$360m p.a.**
- CVac™ also has further indications across a number of other cancers
Prima has assembled a world class scientific and medical team who are leaders in their fields to drive the commercialisation of Cvac™ and add major substance to the Company’s business model.

**Professor Ian Frazer**
- Wealth of experience in cancer/oncology and immunology, best known for development of the world’s first preventative cervical cancer vaccine

**Dr Bruce Loveland**
- Instrumental in Cvac™ phase I and IIa trials in Australia
- Expert in human monocyte dendritic cells for cancer immunotherapy

**Dr Joyce Frey**
- Former director US FDA Cell and Gene Therapy

**Dr Heidi Gray**
- Based in the Fred Hutchinson Cancer Centre Seattle and leading Prima’s US strategy and US relationships

**Dr Cassian Yee**
- Immunologist at Fred Hutchinson Cancer Centre Seattle

*Cell Therapy – A new paradigm for the treatment of cancer*
Recent appointments strengthen the team...

Dr Neil Frazer
- Key senior appointment as Company’s Chief Medical Officer to oversee upcoming clinical trials
- More than 23 years experience in pharmaceutical industry managing clinical development of new drug applications
- Involved in successful applications for 10 new chemical entities in multiple therapeutic areas and >20 applications for line extensions of pharmaceutical drug applications

Ginny Raymond
- Ex-Pfizer Director of Global Medical recently appointed to manage Company’s US operations
- More than 20 years clinical drug development experience at Pfizer and was involved in clinical development of >30 different generic compounds
The US FDA provides the highest hurdle standard globally for the approval of new drug and therapy treatments.

Approval process is a detailed and lengthy process, involving clinical trials over 3 phases and other FDA mandated requirements.

A key criterion for approval of new cancer treatments is proof that they prolong the life and improve the quality of life of the patient, and only 8% are successful.

The data for CVac™ has proved highly encouraging:
- Two terminal patients in dire situation with 3-6 months life expectancy and no further treatment options survived more than 3 years post-treatment.
FDA Approval Timeline

Achievements to date...

✓ CVac™ commenced human research in 1996
✓ Phase I trials commenced in 2001
  – Trials conducted on 18 patients with a variety of malignant tumours
✓ Phase II trials completed in 2007
  – Trials conducted on 28 patients with elevated CA125 levels (a key cancer marker)
✓ US FDA pre-Investigational New Drug Application (preIND) meeting concluded October 2008
  – A PreIND meeting is a key milestone in FDA approval process
✓ IND application for CVac™ submitted July 2009
✓ FDA approval to begin Phase IIb clinical trial granted Aug 2009
Upcoming...

• Multicentre Phase IIb clinical trial to commence early 2010
  – Clinical trial to be conducted on total of 60 patients

• Orphan Drug Designation for CVac™ ovarian cancer treatment
  – Allows the FDA to expedite the final drug review approval process

• Commence Phase III trial in Europe under EMEA mid 2010

• FDA grant of Biological Licence Authority (BLA) on completion of Phase III trial
  – BLA allows company to commercialize the Cvac™ vaccine

Licensing or sale of Cvac™ to a pharmaceutical/drug major is the target that will trigger major revenue generation for the Company
A Comparison – The Dendreon story

• Dendreon (NASDAQ:DNDN) is developing a cancer immunotherapy, called Provenge, that targets prostate cancer

• Dendreon released preliminary results of its 512 patient Phase III trial of Provenge in April 2009 that showed increased patient survival times. It now awaits FDA approval

• Dendreon’s share price increased considerably on the back of the results to reach a market capitalisation of US$2.8B.

• The treatment has a similar therapeutic approach to Prima’s CVac™ and paves the way for CVac™’s technology in the ovarian cancer market.

The success of Dendreon highlights the major opportunity that Prima Biomed represents for investors and for cancer vaccines.
How CVac™ Works

CVac™ is a unique immunotherapy which harnesses and intensifies the body’s own cancer fighting cells.

To begin the process, white blood cells are taken from the patient over two to three hours.
How CVac™ Works

The dendritic cells (antigen-presenting cells of the immune system) are then extracted from the blood sample.

Mirroring the body’s own natural immune system, the dendritic cells are multiplied in a cell therapy laboratory.
How CVac™ Works

These cells are then artificially activated by pulsing a tumour antigen (mucin-1) into the extracted cells.

When injected back into the patient’s skin, the CVac™ therapy stimulates the immune system to produce mucin-1-specific T-cells.
How Cvac™ Works

These T-cells recognise the proteins on the surface of the cancerous cells and identify the cancer as foreign.

This enables the immune system to actively target and attack tumours.

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How CVac™ Works

CVac™ injections are repeated monthly following the initial treatment and then at 10 week intervals thereafter.
Phase II trial Results

- Based on an incurable recurrent disease (diagnosed by elevated CA125 marker)

- CVac™ treatment demonstrated stabilisation of CA125;
  - initially for 4mths, then
  - for a further 18mths post further injections of CVac™
CVac™ - Results to date

A success story

More than 3 years after successful treatment of CVac™ Rosalie Martin AM (pictured) is living a healthy life today.
Prima’s Other Assets

• Company recently divested non-core Panvax (DCtagTM) cancer immunotherapy product. Will retain a holding in any future commercialisation royalties.

• Prima Biomed has 2 other non-core assets that represent significant divestment opportunities
  – Oncomab Pty Ltd
    (monoclonal antibody for the anti-cancer Cripto-1)
  – Trillium Therapeutics Inc. (7% stake)

• Recent research program for oral delivery of cervical cancer vaccine adds value to the non-core portfolio
Summary

- World-first ovarian cancer maintenance therapy, CVac™ preparing for pivotal multicentre trial under US FDA IND
  - US FDA approval to conduct Phase IIb clinical trial granted August 2009
  - Trial to be conducted from prestigious Fred Hutchinson Cancer Centre in Seattle, USA
  - CVac™ addresses a major un-met medical need in the ovarian cancer treatment market estimated to be US$3.6b by 2010

- Solid financial position
  - A$11.25m raised in recent Share Purchase Plan
  - A$25.5m from New York fund, Spring Tree

- Strong intellectual property portfolio

- Top tier scientific advisors and medical managers – track record of successful commercialization
Martin Rogers, Executive Director

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