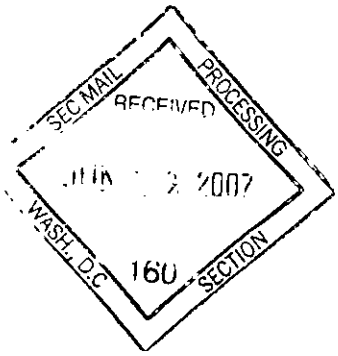
Bionomics Limited

4 June 2007



Securities and Exchange Commission
Judiciary Plaza,
450 Fifth Street,
Washington DC 20549

SUPPL

Re: Bionomics Limited - File number 82-34682

Please see attached provided pursuant to Section 12g3-2(b) file number 82-34682.

Yours sincerely

per
Stephen Birrell
CFO & Company Secretary

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Attention ASX Company Announcements Platform
Lodgement of Open Briefing®

corporatefile.com.au

Bionomics Limited
31 Dalgleish Street
Thebarton, South Australia 5031

Date of lodgement: 04-Jun-2007

Title: Open Briefing®. Bionomics. Pipeline Update

Record of interview:

corporatefile.com.au
Bionomics Limited today announced new data for its anti-cancer drug candidate BNC105. What are the implications of this new data for the development of BNC105 and how might it extend the addressable markets?

CEO & MD Dr Deborah Rathjen
The new data indicates that BNC105 has potent vascular disrupting effects on prostate cancers in a mouse model of human prostate cancer. It also indicates BNC105 is a very potent inhibitor of prostate cancer cell proliferation in in-vitro assays, particularly when compared with a range of conventional cytotoxic chemotherapies.

Prostate cancer is the third most common cancer worldwide and treatments that address it have an annual market value of US$3 billion. According to the American Cancer Society there are in excess of 2 million US males suffering with prostate cancer. Also in the US, where it is the second most common cancer, prostate cancer is diagnosed in over 200,000 men each year and causes approximately 20,000 deaths each year. It's one of the biggest segments of the oncology market, alongside breast and colorectal cancers.

Hormone therapy that reduces the level of testosterone in the bloodstream is the main treatment for prostate cancer because it reduces the spread of the disease. However, many patients stop responding to hormonal therapies after two to three years of treatment; hence, the search has been on for an effective

therapy to treat advanced prostate cancer that has stopped responding to hormone therapy.

corporatefile.com.au
You are planning to begin Phase I/IIa clinical trials of BNC105 later this year. How are you tracking with preparations for the trials? Is all of the funding in place for these trials?

CEO & MD Dr Deborah Rathjen
Our preparations are progressing smoothly. SAFC Pharma has completed the contract manufacture of a large quantity of clinical trial grade BNC105. We're continuing our safety testing with Charles River Laboratories and we're heavily engaged in the development of the clinical trial protocol as part of our Investigational New Drug (IND) submission. We'll be making our IND submission to the US Food and Drug Administration (FDA) in September and anticipate progressing into clinical trials by the end of this year.

The BNC105 program is supported by a Commercial Ready grant from the Federal Government, which provides some of the funding for the program up to and including the Phase I/IIa clinical trial.

corporatefile.com.au
Last week you announced the validation of your new drug candidate, BNC210, as an effective and safe development prospect for the treatment of anxiety. How does BNC210 compare with other anxiolytic drugs?

CEO & MD Dr Deborah Rathjen
In developing BNC210 we targeted a product profile that would address the unmet clinical needs of anxiety treatment. Specifically, we looked for a compound that was very potent at suppressing the symptoms of anxiety but which did not have the side-effects of sedation, memory loss and impairment of motor co-ordination. An advantage of BNC210 is that it doesn't appear to induce tolerance, which means there may be no need to administer increasing doses in order to demonstrate a reduction in symptoms. Increased tolerance has been a disadvantage with other anxiety treatments and can contribute to addiction. In fact, in our extended studies we saw increasing efficacy of BNC210. Finally, we have the added significant benefit that BNC210 is fast acting. Other drugs, such as the blockbuster Prozac, can take several weeks to show a benefit in terms of a reduction in patients' symptoms of anxiety.

corporatefile.com.au
What is your commercialisation strategy for BNC210?

CEO & MD Dr Deborah Rathjen
In parallel with pursuing the further development through IND enabling studies and, in line with our stated strategy to license early, we will be seeking a commercialisation partner for BNC210 within the pre-clinical to Phase II stage of development.

corporatefile.com.au
Can you summarise the main efficacy and safety results supporting the selection of BNC210 as your first Central Nervous System (CNS) drug candidate?

CEO & MD Dr Deborah Rathjen
The selection of BNC210 was the result of extensive efficacy and safety testing. For example, we've shown that BNC210 was efficacious in three rodent models of anxiety - the Marble Burying Test, the Light Dark Test and the Elevated Plus Maze. We've also investigated the side-effects associated with current marketed anxiolytic drugs including sedation, loss of motor co-ordination and loss of memory, using the Open Field (Dark) Test, the Rotarod Test and the Object Recognition Test respectively.

Overall, the results of these studies suggest that BNC210 is a very potent anxiolytic that lacks the side-effects of sedation, memory loss and loss of motor co-ordination. A 14 day study of BNC210 found no evidence of increased side-effects or tolerance to BNC210 with daily dosing. An acute dose toxicity study and a seven-day toxicity study showed no adverse effects from BNC210 across a range of parameters including clinical symptoms, gross pathology, blood chemistry or haematology.

corporatefile.com.au
What is your timetable for taking BNC210 into the clinic and what additional testing will be carried out prior to Phase I trials?

CEO & MD Dr Deborah Rathjen
Now that we've selected BNC210 as our first CNS drug candidate we can commence the activities that will enable us to file an IND with the US FDA. Those activities include: scale up and manufacture of BNC210 under Good Manufacturing Practises (GMP); additional safety testing of BNC210 under Good Laboratory Practise (GLP) conditions; development of the Phase I clinical trial protocol; and, the documentation needed in support of the FDA submission. These activities will take approximately 15 months.

By the second half of calendar year 2008, we anticipate that we will be in a position to file our IND submission and start the first clinical trial of BNC210 thereafter.

corporatefile.com.au
Diazepam was used as a comparator for BNC210 in this series of tests. Why was Diazepam chosen and what was the significance of comparing BNC210 with Scopolamine in the object recognition model?

CEO & MD Dr Deborah Rathjen
In most of our studies we have compared BNC210 with Diazepam (Valium) which has been used for many years to treat anxiety. Diazepam displays many of the drawbacks, for example, sedation and loss of motor co-ordination, which our discovery process sought to eliminate. In all of our testing to date, BNC210 has indicated that it's a much better drug prospect in terms of these key side-effects and it has demonstrated a therapeutic index of up to 1,000.

Its' potency and lack of well-known side-effects represents a source of competitive advantage for BNC210 relative to other well established anxiety treatments.

In the Object Recognition Test we compared BNC210 with Scopolamine, an anti-cholinergic drug that induces amnesia.

corporatefile.com.au
What proportion of the up to US$12 billion value of the global anxiety therapy market do you believe BNC210 may be able to target?

CEO & MD Dr Deborah Rathjen
If its superior properties in terms of potency and lack of side-effects can be substantiated in clinical development, then we have a potential product that is likely to be very competitive in the marketplace. Even if BNC210 only secures a 10 percent share of the addressable market, that would generate very significant revenues. Current anxiety treatments such as Valium and Prozac are amongst the major blockbuster drugs, despite their drawbacks.

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Can you outline your intellectual property position on BNC210?

CEO & MD Dr Deborah Rathjen
Our first patent application covering BNC210 and related molecules was filed in October 2006. It covers composition of matter as well as methods of use for anxiety and other CNS disorders.

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What other potential pipeline developments are there? What are Bionomics' milestones for the rest of this year?

CEO & MD Dr Deborah Rathjen
We have strengthened Bionomics' emerging pipeline with our second drug candidate BNC210 in a period of 13 months. This is one of the milestones which Bionomics' had set to achieve this financial year. Other recent milestones include submission of our BNC105 pre-IND package to the FDA, and successful completion of scale-up and manufacture of BNC105.

Looking forward there are several significant milestones for the rest of calendar year 2007 including the IND filing for BNC105 and the initiation of the Phase I/IIa clinical trial. We will be initiating the IND enabling studies for BNC210 and we are working towards identification of a drug candidate in our MS program. All of which will be key developments for Bionomics which will see the company with two drug candidates in the clinic in 2008 and three drug candidates in the clinic in 2009.

corporatefile.com.au
Thank you Deborah.

For previous Open Briefings with Bionomics Limited, or to receive future Open Briefings by e-mail, please visit www.corporatefile.com.au.

For more information about Bionomics Limited, please visit www.bionomics.com.au or call Deborah Rathjen on (08) 8354 6101.

Factors Affecting Future Performance
This announcement contains "forward-looking" statements within the meaning of the United States' Private Securities Litigation Reform Act of 1995. Any statements contained in this press release that relate to prospective events or developments, including, without limitation, statements made regarding BNC105, BNC210 and its' drug development programs are deemed to be forward-looking statements. Words such as "believes," "anticipates," "plans," "expects," "projects," "forecasts," "will" and similar expressions are intended to identify forward-looking statements. There are a number of important factors that could cause actual results or events to differ materially from those indicated by these forward looking statements, including risks related to our available funds or existing funding arrangements, a further downturn in our customers' markets, our failure to introduce new products or technologies in a timely manner, regulatory changes, risks related to our international operations, our inability to integrate acquired businesses and technologies into our existing business and to our competitive advantages, as well as other factors. Subject to the requirements of any applicable legislation or the listing rules of any stock exchange on which our securities are quoted, we disclaim any intention or obligation to update any forward-looking statements as a result of developments occurring after the date of this announcement.

Bionomics Limited

4 June 2007

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ASX ANNOUNCEMENT
4 June 2007

BIONOMICS' VALIDATES THIRD CANCER APPLICATION FOR ANTI-CANCER COMPOUND BNC105

Australian drug discovery company, Bionomics Limited (ASX: BNO), announced today that their latest findings indicate that BNC105 disrupts the vasculature in human prostate tumours grown in mice, expanding on its previously demonstrated preclinical efficacy in breast and colon cancers.

BNC105 is a new type of drug called a Vascular Disruption Agent (VDA) that acts to rapidly shut down the blood supply within a tumour. It thereby starves the tumour of the oxygen and nutrients it needs to survive. Animal model data has shown BNC105 to be effective in shutting down the blood vessels within human prostate tumours (see figure 1).

Chemotherapy is an option for patients whose prostate cancer has spread outside of the prostate gland and for whom hormone therapy has failed and BNC105 was found to be highly potent in inhibiting the growth of prostate cancer cells in laboratory testing (see table 1).

Further studies are in progress to establish the extent to which BNC105 suppresses the growth of human prostate tumours in animal models under an optimised treatment regime.

BNC105 is expected to enter clinical trials in late 2007, following submission of an Investigational New Drug (IND) application to the US FDA.

Vascular Disruption Agents have significant clinical potential in the treatment of cancer, as they may be applied across a very wide variety of cancer types. The market potential for VDAs is estimated at US$5 billion annually (ASInsights, 2003).

The prostate cancer market was estimated to be worth US$3 billion in 2006, with a growth rate of 5% year on year. It is one of the larger segments of the oncology market, alongside breast, non-small cell lung cancer and colorectal cancers. Prostate cancer is the second leading cause of cancer in men in the US and the third most common cancer worldwide. More than two million men in the US suffer with prostate cancer and, the estimated number of new cases in the US in 2007 is 218,890, with an estimated 27,050 deaths (https:// espicom.com and http://cancer.gov).

Figure 1:

Effect of BNC105 in a mouse model of human prostate cancer

Image of a tumour from a mouse model of human prostate cancer. The image on the left is from an untreated mouse and shows a large number of blood vessels throughout the tissue. The image on the right is a tumour from a mouse treated with BNC105 and shows a dramatic shutting down of the blood supply to the tumour following a single intravenous injection of BNC105 at 40mg/kg.

Table 1:

Inhibition of prostate cancer cell line growth in culture

COMPOUND/ CHEMOTHERAPEUTIC	Activity against Prostate Cancer Cells IC_{50} (nM)
BNC105	0.1-1
Carboplatin	>1,000
Cisplatin	>1,000
Doxorubicin	>100
5'Fluorouracil	>1,000
Gemcitabine	1-10
Paclitaxel	1-10
Vinblastine	1-10
Vincristine	1-10

BNC105 inhibited prostate cancer cells at a lower concentration than the other cancer drugs tested.

FOR FURTHER INFORMATION PLEASE CONTACT:

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About Bionomics Limited

Bionomics (ASX: BNO) discovers and develops innovative therapeutics for cancer and diseases of the central nervous system. Bionomics has small molecule product development programs in the areas of cancer, anxiety, epilepsy and multiple sclerosis. Bionomics' most advanced program, BNC105 for the treatment of cancer, is based upon the identification of a novel compound that potently and selectively restricts blood flow within tumours. Bionomics' discovery and development activities are driven by its three technology platforms: Angene®, the company's angiogenesis target and drug discovery platform, incorporates a variety of genomics tools to identify and validate novel angiogenesis targets. MultiCore® is Bionomics' proprietary, diversity orientated chemistry platform for the discovery of small molecule drugs. ionX® is a set of novel technologies for the identification of drugs targeting ion channels for diseases of the central nervous system. Bionomics was recently ranked in the top 10 in the Deloitte's Technology Fast 50 Australian technology companies.

For more information about Bionomics, visit **www.bionomics.com.au**

Factors Affecting Future Performance

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