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CEO Report

Dear Shareholders,

Last month's Annual General Meeting gave me the opportunity to recap the many achievements of the Bionomics' team and the milestones reached in 2009. These include:

- > Initiation of the first human clinical trial of BNC210, which is in development for the treatment of acute and chronic forms of anxiety and depression. This trial was initiated ahead of schedule in June.

In October we reported that the first stage of this trial was successfully completed. The trial results indicated that BNC210 is safe and well tolerated at doses that exceed blood levels required to demonstrate efficacy in animal models of anxiety. The pharmacokinetics (that is, the blood levels measured over time) of BNC210 indicate that once-a-day administration is feasible. Bottom line is that this stage of the trial delivered results in line with data from preclinical models.

We are looking forward to the completion of the second stage of the trial this month, demonstrating again that Bionomics consistently meets important milestones.

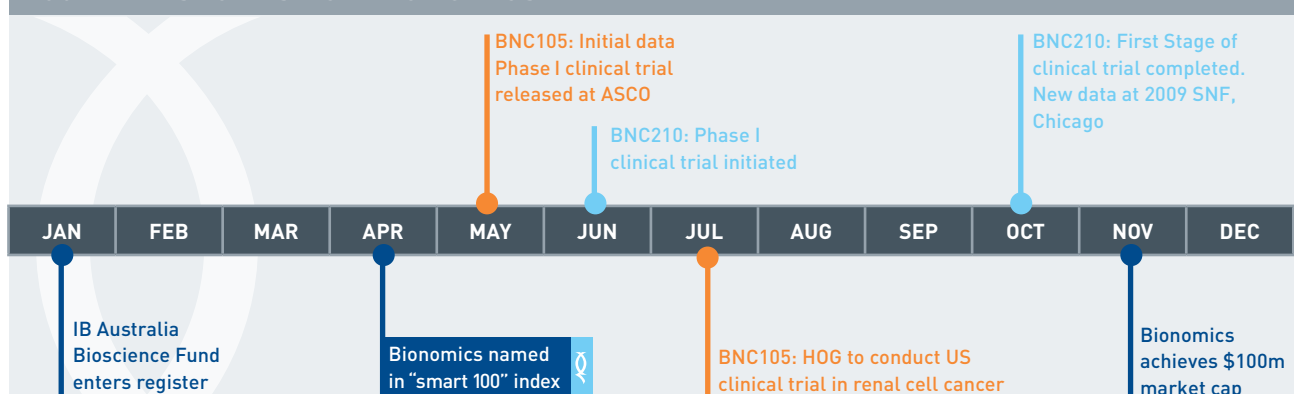
- > New preclinical data on BNC210 was also presented at the 2009 Society for Neuroscience Annual Meeting in Chicago, Illinois during October. This new data, which was presented by Dr Sue O'Connor, BNC210 Project Leader and Dr Emile Andriambelosen, Head of Research at Bionomics' wholly-owned subsidiary Neurofit, extended the potential use of

BNC210 to the treatment of depression and confirmed that the extended use and subsequent withdrawal of BNC210 in animal models did not produce symptoms of physical dependence. This new data reinforces the superiority of BNC210, as identified by our preclinical research, over blockbuster drugs used to treat anxiety and depression. BNC210 appears to be entirely novel in its action and remarkably free of the sedation associated with other treatments for anxiety.

- > BNC105, a vascular disrupting agent (VDA) which is in development for the treatment of solid cancers, successfully met the objectives of its first clinical trial. Importantly the data indicates that BNC105 maintains a very broad therapeutic window over its major VDA competitors.

The success of Bionomics' first clinical trial of BNC105 would not have been possible without the efforts of Cancer Trials Australia and the investigators and supporting staff at each of the clinical trial sites – The Peter MacCallum Cancer Centre, The Royal Melbourne Hospital, Western Hospital and the Austin Hospital. We are also very grateful to the patients, and their families, who participated in this clinical trial.

2009 MILESTONES FOR BIONOMICS





BIONOMICS IN THE NEWS



At the end of September Bionomics' CEO Deborah Rathjen was interviewed by Peter Switzer on Sky TV. **This interview is available for shareholders on Bionomics' website home page www.bionomics.com.au**

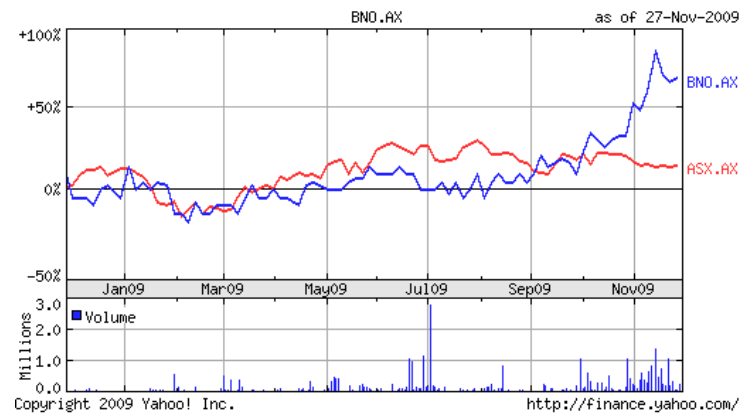


Bionomics has moved forward with the announcement of a Phase II clinical trial in the US in patients with renal cell cancer, the major form of kidney cancer. The Hoosier Oncology Group, headquartered in Indianapolis, has been contracted to undertake the trial. Based on current progress we anticipate that this trial will be initiated in the New Year.

We are also in the process of finalizing contractual arrangements for a **second Phase II clinical trial of BNC105 in patients with mesothelioma. Mesothelioma is a form of cancer that is usually caused by exposure to asbestos.** In this disease, malignant cells develop in the protective lining that covers most of the body's internal organs. Its most common site is the outer lining of the lungs and internal chest wall. We will keep shareholders apprised of progress in this important new initiative and hope to announce further details shortly.

2009 has been an exciting year for Bionomics. The company now has two major drugs in clinical development as well as an important partnership with Merck Serono for the discovery of new drugs to treat Multiple Sclerosis. In parallel with our achievements in the last quarter relating to the clinical progress of BNC210 and the completion of our major **\$15 million capital raising, Bionomics share price has significantly appreciated.**

The Bionomics' team will work hard to continue this momentum to deliver the full value of your investment.



BIONOMICS' 3 MONTH SHARE PRICE PERFORMANCE

Looking to next year it is apparent that 2010 will see Bionomics progress to further, higher value creating milestones which are aligned with our business objectives of partnering BNC105 and BNC210. We look forward to initiation of both the renal cancer and mesothelioma clinical trials of BNC105 and to reporting initial data from those trials later in 2010. On the BNC210 front we anticipate that the Phase Ib clinical trial will get underway in Q1 and complete in Q2 of 2010. As always we will keep shareholders updated on our progress. **It remains for me now to thank all shareholders for their support throughout 2009 and to wish you all a happy holiday season and prosperous 2010.** •

Dr Deborah Rathjen
Chief Executive Officer

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See Bionomics

10 December 2009

Start-up Australia
Annual Review
Sydney, NSW

8-9 February 2010

BIO CEO Investor
Conference
New York, USA

13-14 February 2010

Lorne Cancer
Conference
Lorne, Victoria

17-21 April 2010

American Association
for Cancer Research
(AACR)
Washington DC, USA

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Factors Affecting Future Performance This publication contains "forward-looking" statements within the meaning of the United States' Private Securities Litigation Reform Act of 1995. Any statements contained in this publication that relate to prospective events or developments, including, without limitation, statements made regarding Bionomics' development candidates BNC105 and BNC210, its drug discovery programs and pending patent applications 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 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. Results of studies performed on competitors products may vary from those reported when tested in different settings. 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 publication.