Bionomics Limited

ABN 53 075 582 740

ASX ANNOUNCEMENT
16 April 2010

NEW BNC105 DATA PRESENTED AT PREMIER INTERNATIONAL CANCER CONFERENCE

- **Tubulin biomarker a potential surrogate measure of BNC105 activity in patients with advanced cancer**
- **BNC105 shuts down blood vessels in animal model of renal cancer**
- **Results confirm rationale for ongoing US Phase II in renal cell carcinoma**

Adelaide, Australia: Bionomics Limited (ASX: BNO) today announced the presentation of new supporting data for its anti-cancer compound BNC105 at the annual American Association for Cancer Research (AACR) conference in Washington DC. Two poster exhibits by Bionomics at the prestigious event detail important findings about its leading vascular disruption agent (VDA) drug candidate, BNC105.

The first poster outlines a method developed by Bionomics for confirming BNC105 activity using human blood samples collected during the Phase I clinical trial. BNC105 acts as a tubulin binding agent that selectively disrupts tumor vasculature and suppresses growth in a broad range of solid tumor models. The test found a strong correlation between tubulin biomarker levels and the dose of BNC105 given to patients with advanced cancer. Results show a dramatic reduction in polymerized tubulin following drug administration that returned to pre-dose levels within 24 hours.

Dr Deborah Rathjen, CEO & Managing Director of Bionomics, said “There is tremendous value in identifying a reliable biomarker showing a drug’s activity. The results of this test clearly demonstrate the potential for using tubulin as a surrogate measure of drug activity for the novel VDA, BNC105. This is the first time that tubulin has been used to confirm the activity of a VDA in cancer patients”.

“This biomarker test is quick and inexpensive compared with sophisticated imaging or other techniques” she said.

In the second poster presented at AACR, Bionomics announced extended preclinical data which to date has shown that a single intravenous administration of BNC105 is able to disrupt more than 90% of blood perfusion in tumors in a number of animal models of cancer, including breast, colon, prostate, brain and lung cancer. Disruption of tumor vasculature has been demonstrated within one hour post-BNC105 treatment and persists for 48 hrs. The latest data now confirms similar BNC105 tumor vascular disruption activity in an animal model of renal cell cancer.

Importantly, Bionomics’ investigations suggest that tumor recovery from the vascular disrupting effect of BNC105 is assisted by activating the mTOR signaling pathway. This infers the potential utility in combining BNC105 with mTOR inhibitors for stronger therapeutic outcomes. Afinitor, which is combined with BNC105 in the current Phase II renal cancer trial, is an mTOR inhibitor that reached the market in 2009.

“Destroying tumour blood vessel and then blocking one of the paths for the tumour to recover should deliver a more effective and longer lasting therapy” explained Dr Rathjen. “We are excited to have this supporting validation of our Phase II clinical trial strategy to test BNC105 in combination with Afinitor” she said.

The trial of BNC105 in patients with renal cell carcinoma has been initiated in partnership with the Hoosier Oncology Group in three clinical centres in the US to date and will determine whether BNC105, either in combination with or following Afinitor® treatment, is effective in the treatment of progressive metastatic renal cell carcinoma following prior treatment with tyrosine kinase inhibitors such as Sutent® or Nexavar®. Interim data from the renal cell cancer trial with BNC105 are expected at the end of 2010.

Both poster presentations are available on Bionomics' website.

Details of the scheduled poster presentations and their respective AACR abstracts are shown below.

Title: Development of a tubulin fractionation assay for the evaluation of "on target" activity of tubulin targeting agents in clinical PBMC samples.

Session Category:	Clinical Research 11
Session Title:	Pharmacokinetic, Pharmacogenomic, and Clinical Results of Early-Phase Trials
Session:	Monday, April 19, 2010, 2:00 PM - 5:00 PM
Location:	Exhibit Hall A-C, Poster Section 33
Board Number:	23
Permanent Abstract Number:	2768

Title: BNC105 is a tubulin polymerization inhibitor that exhibits vascular disruptive activity in renal cancer and causes upregulation in HIF1alpha, HIF2alpha and mTOR.

Session Category:	Experimental and Molecular Therapeutics 16
Session Title:	Anticancer Drugs Targeting Cell Cycle and Proliferation
Session:	Monday, April 19, 2010, 2:00 PM -5:00 PM
Location:	Exhibit Hall A-C, Poster Section 21
Board Number:	15
Permanent Abstract Number:	2498

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About AACR

The Annual Meeting of the American Association for Cancer Research is the premier scientific meeting in cancer research and attracts over 17,000 attendees each year and covers the breadth of cancer science from basic through clinical and epidemiological research. This year's meeting in Washington, DC, the 101st AACR Annual Meeting, is themed "*Conquering Cancer Through Discovery Research*" and highlights novel approaches and technologies being used in the laboratory, innovative preclinical science, clinical trial results, and more.

About Bionomics Limited

Bionomics (ASX: BNO) is a leading international biotechnology company that 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. BNC105, which is undergoing clinical development for the treatment of cancer, is based upon the identification of a novel compound that potently and selectively restricts blood flow within tumours. A clinical program is also underway for the treatment of anxiety disorders based on BNC210 which exhibits strong anxiolytic activity without side effects in preclinical models. Both compounds offer blockbuster potential if successfully developed.

Bionomics' discovery and development activities are driven by its three technology platforms: Angene®, a drug discovery platform which incorporates a variety of genomics tools to identify and validate novel angiogenesis targets (involved in the formation of new blood vessels). 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.

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

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 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 the clinical evaluation of either BNC105 or BNC210, 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. 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 press release.