

**ASX ANNOUNCEMENT**  
**22 April 2009**

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**NEW BNC105 DATA PRESENTED AT THE AMERICAN ASSOCIATION FOR CANCER  
RESEARCH (AACR) CONFERENCE**

***Key points:***

- BNC105 now shown to be an effective anti-cancer agent in animal models of six human tumour classes: head and neck, brain, prostate, breast, colon and lung.
- In contrast to many of the current chemotherapeutic drugs, BNC105 is not susceptible to common mechanisms of cancer resistance.
- New data shows that BNC105 delays the growth of throat cancer when used as a single agent in an animal model of human disease. It also effectively combines with radiation therapy to generate an enhanced anti-tumour response.
- In a model of human lung cancer BNC105 effectively combines with the cytotoxic agent cisplatin to generate an enhanced anti-tumour response.

**Adelaide, Australia:** Bionomics Ltd (ASX: BNO) today announced the presentation of new preclinical data confirming that its anti-cancer compound BNC105 acts as a very effective anti-cancer agent in a model of human throat cancer at the American Association for Cancer Research Conference (AACR) in Denver, Colorado.

BNC105 has now been shown to be very effective in shutting down the blood supply to tumours in mouse models of human breast, prostate, lung, colon, brain, head and neck cancers.

Tumours of the throat belong to the class of head and neck cancers. This cancer class includes a group of biologically similar cancers of the lip, mouth, nose, and throat. These cancers are often diagnosed at an advanced stage and current treatment options are surgical resection, radiation and chemotherapy.

The new data demonstrated that BNC105 has dual anti-cancer activities, killing cancer cells directly as well as shutting down the blood supply of advanced tumours of the throat. A single cycle of BNC105 treatment was very effective in delaying the growth of throat tumours in animal models and improving the survival rate of the animals.

The data also showed that BNC105 effectively combines with radiation therapy to yield a more effective anti-tumour response against this cancer type. Furthermore, BNC105 appears to ameliorate radiation induced tumour ulceration.

Bionomics' Chief Executive Officer, Dr Deborah Rathjen said, "The potential of BNC105 for the treatment of head and neck cancers could be an attractive option for patients since they are often diagnosed only after the disease has reached an advanced stage. Head and neck cancers account for approximately 3 to 5 percent of all cancers in the United States whilst in Australia head and neck cancers are the eighth most common cancer. These cancers are more common in men and in people over age 50 and risk factors include smoking and alcohol consumption".

New data on the effectiveness of BNC105, both as a single agent and in combination with the cytotoxic agent cisplatin, in treating lung cancer in animal models was also presented. BNC105 suppresses the growth of lung tumours and effectively combines with cisplatin to give enhanced anti-tumour effect and prolong survival.

The two main types of lung cancer are small cell lung cancer and non-small cell lung cancer. In the US up to 200,000 patients are diagnosed with lung cancer each year.

Dr Gabriel Kremmidiotis, Bionomics' Vice President of Discovery Research said, "The latest data on head and neck and lung cancers further reinforce the therapeutic potential offered by BNC105 for a range of cancer types, in a broad range of therapeutic combinations."

BNC105 is undergoing phase I clinical trial in patients with advanced cancers at the Peter MacCallum Cancer Centre, the Western Hospital, the Austin Hospital and the Royal Melbourne Hospital. The trial is being conducted under an IND approved by the US Food and Drug Administration (FDA).

Some of the data referred to in this announcement are presented below. A copy of the AACR presentation is posted on Bionomics' website [www.bionomics.com.au](http://www.bionomics.com.au)

## **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.

For more information about Bionomics, visit [www.bionomics.com.au](http://www.bionomics.com.au)

### **About BNC105**

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.

VDAs (Vascular Disruption Agents) have significant clinical potential in the treatment of cancer, as they may potentially be applied across a variety of cancer types, including colon, lung, and breast cancers. The market potential for VDAs has been estimated at approximately US\$5 billion annually (ASInsights, 2003).

### **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.

**Figure 1: Effect of BNC105 on the growth of throat tumours in animals. BNC105 suppresses tumour growth and combines effectively with radiation treatment to give an enhanced anti-tumour response.** Animals treated with radiation alone displayed a greater degree of tumour ulceration as compared to animals treated with radiation in combination with BNC105.

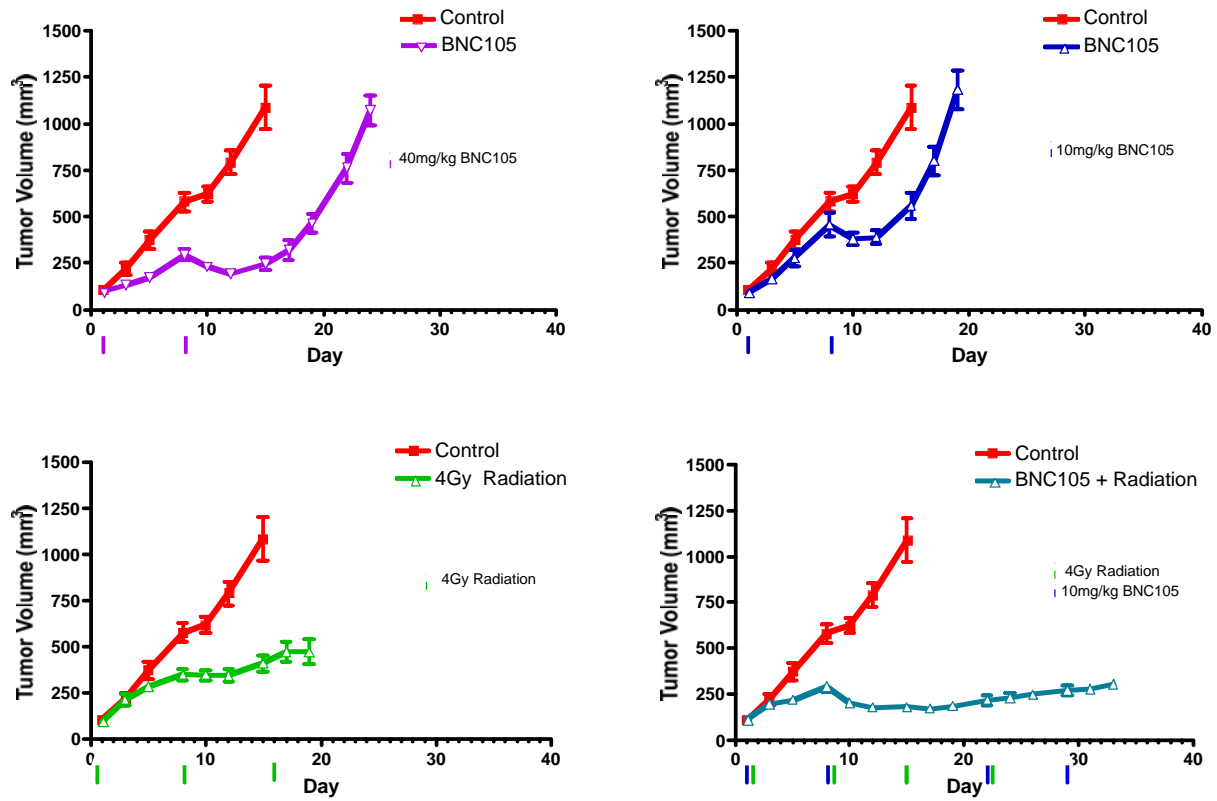


Figure 2: Effect of BNC105 on lung cancer growth in an animal model of lung cancer. BNC105 suppresses the growth of lung tumours and effectively combines with chemotherapy agent Cisplatin to give enhanced anti-tumour effect and prolong survival.

