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ASX ANNOUNCEMENT 20 April 2016

Bionomics Presents Cancer Drug Data at Annual American Association for Cancer Research Conference

ADELAIDE, Australia, 20 April 2016: Bionomics Limited (ASX:BNO; OTCQX:BNOEF), a biopharmaceutical company focused on discovery and development of innovative therapeutics for the treatment of diseases of the central nervous system and cancer, today announced the release of new pre-clinical and clinical data from ongoing studies of its vascular disrupting agent, BNC105, being developed to treat solid cancers.

The data presented at the annual American Association for Cancer Research conference in New Orleans reinforces earlier data which demonstrates a strong, synergistic anti-tumour activity between BNC105 and checkpoint inhibitors.

Vascular disrupting agents are drug compounds which disrupt the blood vessels that feed solid tumours. Checkpoint inhibitors are a form of immunotherapy that allow the immune system to recognise and destroy tumours that would otherwise escape immune surveillance.

The data provides both preclinical (in mouse models of renal and colon cancer) and clinical (in mesothelioma patients) evidence that treatment with BNC105 is associated with increased immune activity as evidenced by cytokine production and changes in immune cell populations within the tumour microenvironment.

BNC105 driven priming of the tumour and immune system may extend the reach of checkpoint inhibitors to leverage greater therapeutic benefit to a larger patient population and the data strongly support clinical evaluation of BNC105 in combination with checkpoint inhibitors.

Poster Presentation details:

Title: BNC105 induces tumor micro-environment changes which enhance the efficacy of checkpoint

inhibitor therapy in preclinical models **Session Category:** Clinical Research

Session Title: Immune Modulation from Non-Immunotherapy and Antibodies: Clinical

Session Date and Time: Wednesday Apr 20, 2016 7:30 AM - 11:00 AM

Location: Convention Center, Halls G-J, Poster Section 26

Poster Board Number: 6

Permanent Abstract Number: 4982

A copy of the poster will be available at www.bionomics.com.au following its presentation to the conference on Wednesday 20 April 2016 (US time).

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About Bionomics Limited

Bionomics (ASX: BNO) is a global, clinical stage biopharmaceutical company leveraging its proprietary platform technologies to discover and develop a deep pipeline of best in class, novel drug candidates focused on the treatment of serious central nervous system disorders and on the treatment of cancer. Bionomics' lead drug candidate BNC210, currently in Phase 2 for the treatment of generalized anxiety disorder, is a novel, proprietary negative allosteric modulator of the alpha-7 (α7) nicotinic acetylcholine receptor. The Company is also developing BNC101, its lead humanized monoclonal antibody targeting a key receptor on cancer stem cells that is overexpressed in metastatic colorectal cancer, metastatic pancreatic cancer and many other solid tumours; BNC101 entered clinical trials in the first quarter of 2016. Bionomics has strategic partnerships with Merck & Co., Inc (known as MSD outside the United States and Canada) in pain and cognition. 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 announcement that relate to prospective events or developments, including, without limitation, statements made regarding Bionomics' drug candidates (including BNC210 and BNC101), its licensing agreements with Merck & Co. and any milestone or royalty payments thereunder, drug discovery programs, ongoing and future clinical trials, and timing of the receipt of clinical data for our drug candidates 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 unexpected safety or efficacy data, unexpected side effects observed in clinical trials, risks related to our available funds or existing funding arrangements, our failure to introduce new drug candidates or platform technologies or obtain regulatory approvals in a timely manner or at all, regulatory changes, inability to protect our intellectual property, risks related to our international operations, our inability to integrate acquired businesses and technologies into our existing business and to our competitive advantage, as well as other factors. Results of studies performed on our drug candidates and competitors' drugs and drug candidates 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 announcement.