

ASX ANNOUNCEMENT 8 December 2015

POST TRAUMATIC STRESS DISORDER IDENTIFIED AS MAJOR NEW MARKET OPPORTUNITY FOR BNC210

- A substantial additional market opportunity for BNC210 has been identified and will be developed via a Phase 2 trial funded by a US\$12m placement
- Data supporting the use of BNC210 for PTSD will significantly enhance partnering potential and the value created for BNO shareholders
- The placement of US\$12m, following the Merck & Co. Inc, (MSD) investment, reflects increasing interest from US investors as BNO builds greater visibility in the US

Australian drug development company Bionomics Limited (ASX:BNO, OTCQX:BNOEF) will launch a key Phase 2 trial of its novel anxiety drug BNC210 as a treatment for post-traumatic stress disorder (PTSD), following a US\$12 million private placement to US institutional investors.

The new trial is expected to begin in the first half of 2016, with patients to be recruited at several trial sites in Australia and New Zealand. All patients enrolled will have experienced severe trauma, including war, natural disasters or have been involved in serious accidents.

The program will be funded with a US\$12 million Private Placement to four US institutional investors.

Under the placement 40,207,472 shares will be issued at A\$0.408 per share with attaching 40,207,472 warrants to purchase shares at A\$0.5938 per share (the same price as the MSD investment), of which 16,082,988 warrants will be subject to shareholder approval at a shareholder meeting to be held early in 2016. Roth Capital Partners acted as the sole US Placement Agent in the transaction.

The Board recommends that shareholders vote to approve the issue of the warrants. The Board further advises that individual Board members will vote their shareholdings in favour of the issue of the warrants.

Bionomics CEO and Managing Director Dr Deborah Rathjen said all existing data indicated that BNC210, which is currently in trial to treat Generalised Anxiety Disorder, could be an effective therapy for PTSD patients.

"After reviewing the extensive datasets from pre-clinical studies and Phase I clinical trials of BNC210, we believe that the safety and efficacy profile of BNC210 suggests that it will be an effective

treatment for PTSD sufferers," she said. "This trial will be critical to building out our clinical package to drive partnering deals."

The risk of developing PTSD after a traumatic event is 8.1% for men and 20.4% for women. Bionomics' study will recruit male and female subjects and will aim to demonstrate improvement in PTSD symptoms following 12 weeks of daily dosing with BNC210. Further study details will be provided on trial initiation.

It is estimated that approximately 8 million Americans, or 3.5% of the US population, suffer PTSD at any given time. Similarly, an estimated 1 million Australians experience PTSD in any year¹, and 12% of Australians will experience PTSD during their lifetime¹.

The anxiety and depression treatments markets are projected to reach US\$18.2 billion by 2020² highlighting the significant market opportunity for BNC210.

BNC210 is a novel, orally-administered, first-in-class, modulator of the α 7 nicotinic acetylcholine receptor. BNC210 is currently undergoing a Phase II trial in Generalised Anxiety Disorder patients which is expected to report results in Q3 CY2016.

The company has previously reported clinical and preclinical data indicating that BNC210 is safe and well-tolerated and has strong potential as a new and effective treatment for other central nervous system indications.

- ¹ https://www.beyondblue.org.au/the-facts/anxiety/types-of-anxiety/ptsd
- ² Transparency Market Research (TMR), June 2015

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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 is expected to enter 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.