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ASX ANNOUNCEMENT 18 May 2017

Expanded BNC210 Clinical Data to be Presented at US Psychiatry Convention

Bionomics Limited (ASX:BNO, OTCQX:BNOEF), a biopharmaceutical company focused on the discovery and development of innovative therapeutics for the treatment of diseases of the central nervous system (CNS) and cancer, will present BNC210 data at the Society of Biological Psychiatry Annual Convention, 18-20 May 2017 in San Diego, CA.

The poster presentation will be given by Professor Allan Young MB ChB, MPhil, PhD, FRCPsych, FRCPC, FRSB, Director of the Centre for Affective Disorders, Department of Psychological Medicine, Institute of Psychiatry, Psychology and Neuroscience at King's College in London.

The presentation highlights data from a successful Phase 2 double-blinded, placebo controlled clinical trial in Generalized Anxiety Disorder (GAD) patients evaluating the effects of BNC210 on task-related brain activity and behavior associated with anxiety. This study used the anxiety provoked emotional faces task during functional magnetic resonance imaging (fMRI) scanning and evaluated defensive behaviour using the Joystick Operated Runway Task (JORT). Twenty four subjects diagnosed with GAD who were previously not treated with medication for their disorder participated in the randomized, placebo and Lorazepam-controlled, 4-way crossover study where they received single doses of BNC210 at 300 and 2000 mg, Lorazepam at 1.5 mg and the placebo.

Amygdala hyperactivity has been associated with GAD and other anxiety related disorders. It is also associated with stress and trauma related conditions such as Post Traumatic Stress Disorder (PTSD). Anxiolytic drugs including the benzodiazepines, have been shown to diminish this hyperreactivity, suggesting that normalization of amygdala activity is critical to successful treatment of symptoms.

The data demonstrate that BNC210 treatment reduced bi-lateral amygdala reactivity to fearful faces relative to placebo. Additional analysis of the data also showed that connectivity between the amygdala and the anterior cingulate cortex was reduced in patients treated with BNC210. The results of this clinical trial indicate that BNC210 reduces activation of anxiety-related neural circuits and reduces anxiety-related behaviours. This highlights the potential of BNC210 as a novel treatment for patients who are suffering with GAD and other anxiety related disorders and suggests a role for BNC210 in the treatment of stress and trauma related disorders including PTSD.

Poster presentation details are as follows:

Title: Modulation of Anxiety-Relevant Neural Circuits in Generalized Anxiety Disorder: A Novel

Cholinergic System Pharmacotherapy Approach

Date: Thursday, May 18th, 2017

Presentation Time: 5:00 PM - 7:00 PM PST

Location: Hilton San Diego Bayfront Hotel - Sapphire CP

A copy of the poster presentation will be made available on the Bionomics website www.bionomics.com.au.

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About The Society of Biological Psychiatry

The Society of Biological Psychiatry was founded in 1945 to encourage the study of the biological causes of and treatments for psychiatric disorders. The vision of the Society of Biological Psychiatry is to be the leading professional organization in the integration, advancement, and promulgation of science relevant to psychiatric disorders, with the ultimate goal of reducing or preventing the suffering of those with these disorders.

To this end, the Society sponsors an annual meeting, maintains web-based resources, grants awards to distinguished clinical and basic researchers, and publishes the journal, Biological Psychiatry. This meeting is held in conjunction with the annual American Psychiatric Association (APA) meeting (May 20-24 San Diego). The American Psychiatric Association (APA) is the main professional organization of psychiatrists and trainee psychiatrists in the United States, and the largest psychiatric organization in the world; and publishes and updates the Diagnostic and Statistical Manual of Mental Disorders (DSM).

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 and for post-traumatic stress disorder, is a novel, proprietary negative allosteric modulator of the alpha-7 (α 7) 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).

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.