

ASX ANNOUNCEMENT 11 November 2014

BIONOMICS TO PROGRESS BNC210 IN CLINICAL TRIALS

- Bionomics to accelerate BNC210 development for the treatment of anxiety and depression, approval for clinical trial granted
- Bionomics has re-acquired sole worldwide rights to develop and commercialise BNC210
- US\$10 million special purpose, non-dilutive funding secured from Silicon Valley Bank to support clinical trials

Bionomics Limited (ASX:BNO, ADR:BMICY) today announced that it will accelerate and progress BNC210 into further human clinical trials expected to commence before the end of the year.

In January 2012 Bionomics entered into a collaboration, research & licensing agreement with Ironwood Pharmaceuticals, Inc, for the worldwide development and commercialisation of BNC210. Bionomics and Ironwood have now mutually agreed to terminate this arrangement. Ironwood will retain a royalty interest in BNC210 whilst Bionomics has re-acquired exclusive worldwide rights to develop, commercialise and partner BNC210.

Bionomics intends to progress the clinical development of BNC210 to significantly enhance its value prior to further partnering, building on the substantial progress already made through the Ironwood collaboration.

Bionomics has received approval to commence a Phase Ib clinical trial in France to be conducted by Biotrial International Limited. The trial will examine target engagement by BNC210, based on its mechanism of action. Details of the trial are provided in the clinical appendix following this announcement. It is anticipated that this trial will allow further refinement of BNC210 dose levels to be evaluated in Phase II.

In addition Bionomics will shortly make a submission to commence a Phase II trial in patients with anxiety. Pending approval, this trial is anticipated to commence in Q1, 2015. Further details of this trial will be provided in a subsequent announcement.

US\$10 million in funding for the continued development of BNC210 is in place through the U.S. bank, Silicon Valley Bank (SVB).

"Bionomics is in a strong position to dedicate the necessary internal resources and has secured non-dilutive funding specifically for the purpose of progressing BNC210 into the next stage of development," said Dr Deborah Rathjen, Bionomics' CEO and Managing Director.

"Much has been achieved in the past two years in building towards Phase II, including formulation and an extensive toxicology program. In addition Bionomics will present on the novel mechanism of action of BNC210 at the annual Society for Neuroscience meeting in the US next month," said Dr Rathjen. "BNC210 is well positioned for both development and potential future partnering".

The SVB loan will be paid back over a 30 month period. This special purpose financing will support the planned BNC210 clinical trials.

Silicon Valley Bank has over US\$33 billion in assets with 34 locations worldwide. Forbes Magazine rates it amongst Americas Best Banks (2013).

"With added financial support for clinical trials, Bionomics is poised to continue to make important progress for patients suffering from anxiety and depression," said Michael White, Managing Director, Life Sciences of Silicon Valley Bank's Southwest Division. "Our dedication to the life science and healthcare sector enables us to put financings in place that our clients, like Bionomics, require to meet development milestones."

Clinical Trial Appendix

Bionomics is conducting a single-centre Phase Ib multiple ascending dose clinical trial (BNC210.005) with BNC210 to investigate the safety, tolerability, pharmacokinetics, and pharmacodynamics in healthy male volunteers.

Primary Endpoint:

 Safety and tolerability of multiple ascending oral doses of BNC210 in healthy adult male subjects

Secondary Endpoints:

- Preliminary pharmacokinetic profile of multiple ascending doses of BNC210
- Pharmacodynamic profile of multiple ascending oral doses of BNC210 on cognitive functions
- Pharmacodynamic profile of multiple administrations of the highest dose on nicotine shift

Four groups of subjects will be enrolled to receive one of each of four doses of BNC210 or placebo, twice a day for eight days. All subjects on the study will undergo a standard battery of pharmacodynamic assessments measuring cognitive parameters: Choice Reaction Time, Digit Vigilance, Rapid Visual Information Processing, Learning Memory Test, Numeric Working Memory test and Spatial Working Memory test, or subjective feelings produced by the drug: Bond and Lader Visual Analogue Scale, and Addiction Research Centre Inventory (ARCI) 49.

An additional pharmacodynamic test the nicotine shift assay, will be performed in the cohort receiving the highest dose. Subjects will be administered nicotine (by nasal spray) which is known to produce a signature response in EEG recordings. BNC210 acts through a mechanism which may produce a shift in the nicotine response and so indicate target engagement.

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About Bionomics Limited

Bionomics (ASX: BNO) is biopharmaceutical company which 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, memory loss and pain. Its oncology approach includes cancer stem cell therapeutics as well as vascular disruption in solid tumours. Bionomics partners include Merck & Co.

Bionomics' discovery and development activities are driven by its four proprietary technology platforms: MultiCore®, a diversity orientated chemistry platform for the discovery of small molecule drugs; ionX®, a set of novel technologies for the identification of drugs targeting ion channels for diseases of the central nervous system; 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); and CSC Rx DiscoveryTM, which identifies antibody and small molecule therapeutics that inhibit the growth of cancer stem cells. These platforms drive Bionomics' pipeline and underpin its established business strategy of securing partners for its key compounds. Bionomics partners include Merck & Co and Ironwood Pharmaceuticals.

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 presentation that relate to prospective events or developments, including, without limitation, statements made regarding Bionomics' development candidates BNC105, BNC210, BNC101 and BNC375, our acquisition of Eclipse Therapeutics and ability to develop products from their platform, its licensing deals with Merck & Co, drug discovery programs and pending patent applications 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 downturn in our customers' markets, our failure to introduce new products or technologies in a timely manner, Ironwood's decision to not continue development of IW-2143 (BNC210), Merck's decisions to continue or not to continue development of partnered compounds, 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. Results of studies performed on competitors products 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 presentation.