Bionomics Limited

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ASX ANNOUNCEMENT
5 October 2010

European Approval Granted for Two Phase Ib Clinical Trials of BNC210

- **First trial will evaluate the potential for BNC210 to relieve panic attacks and reduce symptoms of anxiety.**
- **Second trial will compare BNC210 with Lorazepam, particularly the potential for BNC210 to deliver the efficacy without the memory loss side effects of many currently marketed anxiety drugs.**
- **Positive data from the trials will indicate BNC210 has a clear competitive advantage over current anxiety and panic attack drugs, including billion dollar products like Xanax and Valium**

5 October 2010; Adelaide, Australia: Bionomics Limited (ASX: BNO) today announced approval from the French Medical Agency AFSSAPS (Agence Francaise de Securite Sanitaire des Produits de Sante) and the Ethics Committee of the Strasbourg Hospital, CPP (Comité de Protection des Personnes), to perform two advanced Phase I clinical trials with BNC210, Bionomics' compound in development for the treatment of anxiety and depression.

The first of the newly approved clinical studies will examine whether BNC210 reduces panic and anxiety symptoms induced by pharmacological means in healthy volunteers. The peptide CCK-4 will be used to induce symptoms of panic and anxiety. Bionomics has previously reported that BNC210, in a rodent model of CCK induced anxiety, overcomes the effects of CCK. These results were recently presented at a major international conference, the European Congress of Neuropsychopharmacology (ECNP).

The second trial will evaluate the effects of BNC210 on the brain using electro-encephalograph (EEG) and quantitative assessments of memory function. In this trial the effects of BNC210 will be compared with Lorazepam, a drug closely related to Valium, which is known to have the adverse side effect of causing memory impairment.

Both trials will be conducted in France by Forenap Pharma, an International Contract Research Organization (CRO), which has 20 years experience in early drug development and conducting studies into the effects of drugs on the central nervous system. Bionomics' subsidiary, Neurofit SAS, is the designated sponsor of the trials. Forenap has the capacity to run both clinical studies in parallel and it is anticipated that data from both trials will be available in the first quarter of 2011.

Dr Deborah Rathjen CEO & Managing Director of Bionomics commented "Today's announcement heralds a major step forward in the development of BNC210 for the treatment of anxiety disorders. Our previous Phase I clinical trials indicated that BNC210 was safe and well tolerated and with no indication, even at high dosage levels, of the side effects found in many currently available drugs used to treat anxiety.

Whilst these new clinical trials will be conducted in healthy volunteers, both studies have been specifically designed to demonstrate the value of BNC210 as an innovative treatment for anxiety and depression".

Panic disorder is a common type of anxiety disorder experienced by 1.7% of the population. It is currently treated with benzodiazepines such as Valium and Xanax. *Forbes.com* recently reported that Xanax, the first drug approved for the treatment of panic attacks, is the most prescribed psychiatric drug in the US, with one prescription issued every second in 2009.

"Bionomics' trials of BNC210 will investigate the potential of BNC210 to relieve symptoms of panic and anxiety. They will also evaluate the brain effects of BNC210 compared to Lorazepam, another benzodiazepine, which is known to impair memory. The potential commercial implications of positive results in these two trials cannot be overstated" Dr Rathjen further commented.

Details of the approved European trials are shown below in the Clinical Appendix following this announcement.

Bionomics also has two Phase II clinical trials in progress for its solid tumour drug candidate, BNC105. Results from the trials in renal cancer and the asbestos-related cancer mesothelioma are expected in early 2011.

FOR FURTHER INFORMATION PLEASE CONTACT:

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Clinical Appendix

Trial 1 Details

Trial Title: A randomised, double-blind, placebo-controlled, two-way crossover study, to evaluate the effect of a single oral dose of BNC210 on CCK-4 induced panic-like symptoms in healthy young male subjects.

Protocol Abbreviated Name: BNC210.004

Primary Objective:

- To assess the effects of a single dose of BNC210 on physiological CCK-4 induced panic-like symptoms by means of the PSS (Panic Symptom Scale).

Secondary Objectives:

- To assess the effects of a single dose of BNC210 on CCK-4 induced anxiety symptoms by means of the STAI (Spielberger State-Trait Anxiety Inventory) and e-VAS (emotional-Visual Analog Scale) scales.
- To assess subjective effects of BNC210 on different mood parameters by means of the ARCI 49 (Addiction Research Center Inventory).
- To assess the effects of a single dose of BNC210 on heart rate after a CCK-4 challenge.

Method: Single centre, double-blind, randomised, placebo-controlled, 2-way cross-over study.

Twenty-two young healthy male subjects will be recruited for the study, which will be run over two periods. All subjects will receive two CCK-4 challenges, one with drug and the other with

placebo. The doses of BNC210 or placebo will be administered as an oral suspension to subjects in a fed condition. CCK-4 will be administered as an intravenous injection.

Trial 2 Details

Trial Title: A randomized double-blind, double dummy, placebo and lorazepam-controlled, 4-way cross-over study to evaluate the pharmacodynamics of single oral doses of BNC210 in healthy young male subjects

Protocol Abbreviated Name: BNC210.003

Primary Objective:

- To assess the effects of single oral doses of BNC210 on attention in young healthy male subjects by means of Critical Flicker Fusion Threshold (CFFT) and Multiple Choice Reaction Time (MCRT).

Secondary Objectives:

- To assess the effect of single oral doses of BNC210 on psychomotor speed by means of Digit Symbol Substitution Test (DSST).
- To assess the effect of single oral doses of BNC210 on quantitative wake EEG (qEEG).
- To assess the effect of single oral doses of BNC210 on visuo-motor coordination.
- To assess the effect of single oral doses of BNC210 on memory by means of perceptual priming test.
- To assess the subjective effects of single oral doses of BNC210 on mood and sleepiness by means of the emotional-Visual Analogue Scale (e-VAS) and Karolinska Sleepiness Scale (KSS).
- To assess subjective effects of BNC210 on different mood parameters by means of the Addiction Research Center Inventory (ARCI 49).

Method: Single centre, randomized, double-blind, double-dummy, placebo and lorazepam-controlled, 4-way cross-over study.

Twenty-four healthy male subjects will be recruited for the study, which will be run over four periods. All subjects will receive two doses of BNC210, one dose of Lorazepam and one dose of placebo. The doses of BNC210, Lorazepam and placebo will be administered as oral suspensions to subjects in a fed condition.

About Bionomics Limited

Bionomics (ASX: BNO) is a leading international biotechnology 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, epilepsy and multiple sclerosis. BNC105, which is undergoing clinical development for the treatment of cancer, is based upon the identification of a novel compound that potently and selectively restricts blood flow within tumours. A clinical program is also underway for the treatment of anxiety disorders based on BNC210 which exhibits strong anxiolytic activity without side effects in preclinical models. Both compounds offer blockbuster potential if successfully developed.

Bionomics' discovery and development activities are driven by its three technology platforms: 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). 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

Factors Affecting Future Performance

This announcement contains "forward-looking" statements within the meaning of the United States' Private Securities Litigation Reform Act of I995. Any statements contained in this press release that relate to prospective events or developments 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 the clinical evaluation of either BNCI05 or BNC2I0, 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, 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 press release.