



21 June 2004

Securities and Exchange Commission
Judiciary Plaza,
450 Fifth Street,
Washington DC 20549

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2004 JUN 29 P 2:02
OFFICE OF INTERNATIONAL
CORPORATE FINANCE



SUPPL

Re: Bionomics Limited - File number 82-34682

Please see attached provided pursuant to Section 12g3-2(b) file number 82-34682.

Yours sincerely

A handwritten signature in black ink, appearing to be "Jill Mashado".

Jill Jill Mashado
Company Secretary

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ASX ANNOUNCEMENT
21 June 2004

**BIONOMICS REPORTS PROGRESS IN DEVELOPMENT OF
GENE TEST FOR EPILEPSY**

*Diagnostic study on track
Milestone reached in Nanogen collaboration*

Bionomics Limited (ASX:BNO, BNOOA, US OTC:BMICY) today announced that it had achieved a further milestone in its collaboration with Nanogen on the development of genetic tests for serious forms of childhood epilepsy and the progress of its ongoing clinical study aimed at the validation of a genetic test for a severe form of childhood epilepsy.

The clinical study, led by Associate Professor Ingrid Scheffer and Professor Samuel Berkovic, has been carried out on a group of epilepsy patients many with severe myoclonic epilepsy of infancy (SMEI). The study progress also coincides with the achievement of a milestone in Bionomics' collaboration with US-based Nanogen Inc, following the submission of comprehensive reports to Nanogen relating to the SMEI diagnostic test.

Professor Samuel Berkovic, Director of the Epilepsy Research Institute at the Austin & Repatriation Medical Centre of the University of Melbourne, and a member of Bionomics' Scientific Advisory Board, said, "The successful screening of such a large cohort of 100 patients in this collaborative study represents an important milestone. The results provide a quantitative link between SMEI and mutations in a sodium ion channel gene SCN1A and is an important step forward in the improved diagnosis of this form of epilepsy."

Aspects of the study are being prepared for publication in peer reviewed scientific journals.

Associate Professor John Mulley, lead geneticist on the study, Head of Epilepsy Genetics at Bionomics and Head of Diagnostic Molecular Genetics at the Women's and Children's Hospital in Adelaide, said, "There is already a recognized strong relationship between mutations in SCN1A and SMEI. Through this study we have been able to ascertain, with a certainty previously unavailable, the risk of developing SMEI in patients presenting with childhood epilepsy. The screening was particularly helpful in establishing the diagnosis of SMEI in children with severe epileptic encephalopathies with some but not all of the classical features of SMEI."

Dr Deborah Rathjen, Bionomics' CEO and Managing Director stated, "The results of this clinical study support the usefulness of a gene based diagnostic for SMEI. It is anticipated that the SMEI test will be Bionomics' first diagnostic product to market with its use being clearly supported by this clinical data."

"We already have one commercial partner for this test, US-based Nanogen Inc., and we envisage further commercial relationships which will maximize the returns to Bionomics from this diagnostic product through milestone payments and royalties on product sales. In this context it is pleasing to see that Bionomics, through this clinical study, has now achieved a milestone in its collaboration with Nanogen. Translation of key clinical and genetic data into

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tangible patient benefits is an important driver for our diagnostic product development program" Dr Rathjen added.

About Bionomics Limited

Bionomics Limited is an ASX listed biotechnology company based in Adelaide, Australia. The Company has an American Depository Receipts (ADRs) program sponsored by The Bank of New York. Bionomics combines its strong genomics-based research focus on the discovery of genes associated with serious medical conditions with validation and development efforts leading to new drugs, gene therapies and diagnostic applications. Bionomics focuses its research and development activities in central nervous system disorders (CNS) and cancer. These diseases are in need of improved medical treatments and represent large markets for Bionomics-developed products.

Bionomics leverages its gene discoveries in epilepsy with the Bionomics-developed ionX[®] discovery platform, a novel platform for the discovery and development of new and more effective treatments for epilepsy and other CNS disorders, including anxiety.

For more information about Bionomics, visit www.bionomics.com.au

About Epilepsy

Epilepsy is second only to stroke as the most common neurological condition, affecting up to 3% of the population. A significant genetic contribution to the disease has been recognized. The global market for anti-epileptic drugs was estimated to be worth more than US\$6 billion in 2003. Epilepsy affects over 7 million people in the seven major pharmaceutical markets. This market is poorly met by current treatments, with around 30% of epilepsy patients unable to obtain adequate seizure control. Epilepsy represents a disease area of high unmet medical need.

About SMEI

Severe myoclonic epilepsy of infancy (SMEI) is a serious form of epilepsy that affects a small number of infants in their first two years of life. SMEI seizures are commonly associated with fever, and are indistinguishable from benign fever-associated seizures in the early stages of the disease. SMEI is associated with high rates of mortality (up to 18%) and, in most cases, SMEI patients suffer from developmental delays and other forms of seizures. Bionomics' SMEI diagnostic test is designed to assist clinicians in making an earlier diagnosis of SMEI and selecting appropriate treatment strategies for SMEI patients.

FOR FURTHER INFORMATION PLEASE CONTACT:

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