

23 June 2003



03024270

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

SUPPL



**Re: Bionomics Limited - File number 82-34682**

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

Yours sincerely

PROCESSED

JUL 11 2003

THOMSON  
FINANCIAL

Per: Jill Mashado  
Company Secretary



## **ASX ANNOUNCEMENT**

### **23 June 2003**

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#### **BIONOMICS PRESENTS AT BIO 2003, WASHINGTON DC**

Bionomics (ASX:BNO, US OTC:BMICY) announced today that the Company's CEO and Managing Director, Dr Deborah Rathjen, will present Bionomics' discovery platforms and partnering opportunities at the BIO2003 Conference in Washington DC on Monday 23 June 2003.

#### **About BIO 2003**

Bionomics will be participating in the BIO 2003 Annual Convention as an exhibitor on the Technology Australia stand, as well as participating in the Partnering Forum. BIO 2003 is the premier convention in the biotechnology calendar, expected to attract between 15,000-20,000 biotechnology executives, politicians, scientists and reporters. Bionomics will be available for one-on-one meetings with prospective licensees, collaborators and partners to discuss commercialisation and partnering opportunities relating to Bionomics' ionX™ and Angene™ discovery platforms.

#### **About Bionomics Limited**

Bionomics Limited is an ASX listed biotechnology company based in Adelaide, Australia. The Company has an American Depository Receipts (ADRs) program on the US OTC exchange via 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 breast cancer, epilepsy and angiogenesis (a critical process involved in serious diseases such as cancer, chronic inflammatory diseases and eye diseases). These diseases are in need of improved medical treatments and represent large markets for Bionomics-developed products. Importantly, Bionomics has exclusive access to clinical material and clinical insights, which in combination with its platform of core technologies, diverse set of skills and expertise and strategic academic and commercial collaborations, positions Bionomics as a world leader in the fields of rapid disease gene and drug discovery, therapeutic and diagnostic product development.

82-34682

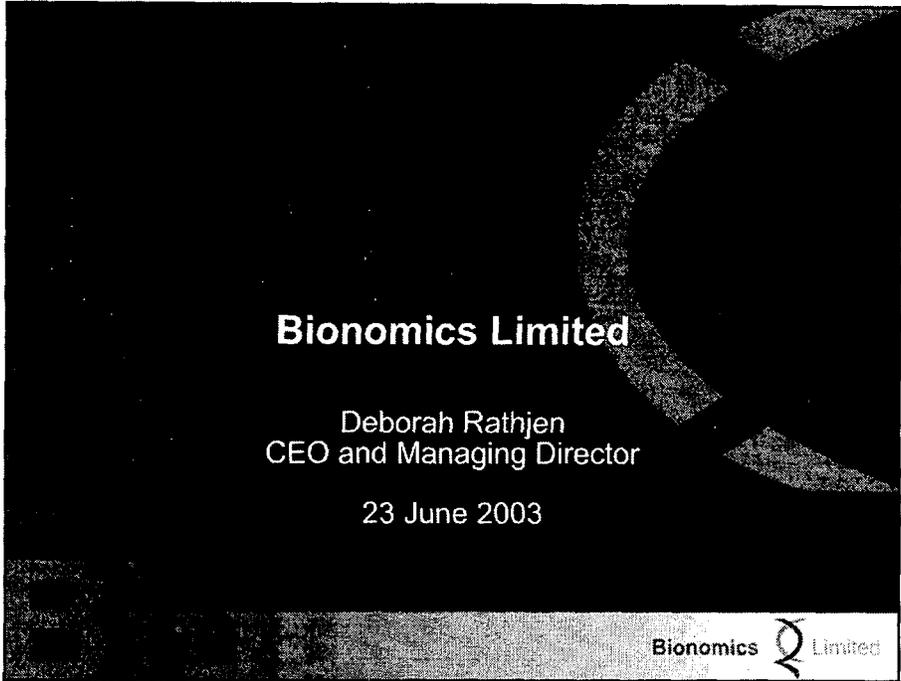
Bionomics leverages its gene discoveries in epilepsy with the Bionomics-developed ionX™ discovery platform, a novel platform for the discovery and development of new and more effective treatments for epilepsy and other CNS disorders. The global CNS market is the second largest sector of the pharmaceuticals market, valued in 2001 at US\$52 billion and projected to grow to US\$77 billion by 2007.

For more information about Bionomics, visit [www.bionomics.com.au](http://www.bionomics.com.au)

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**FOR FURTHER INFORMATION PLEASE CONTACT:**

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VP, BUSINESS DEVELOPMENT  
BIONOMICS LIMITED  
Ph: +61 8 8354 6104**

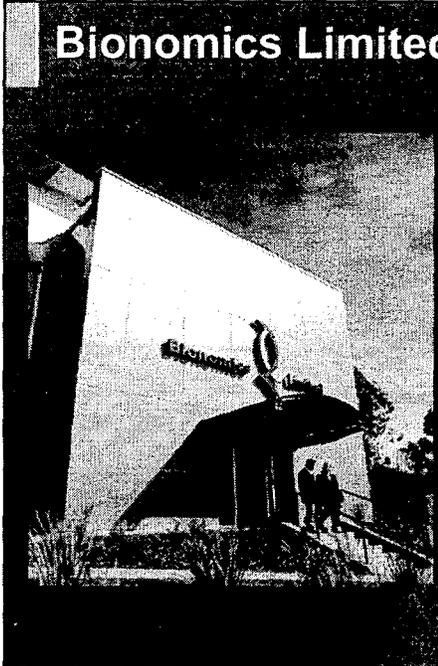


# Bionomics Limited

Deborah Rathjen  
CEO and Managing Director

23 June 2003

Bionomics  Limited



# Bionomics Limited

- Biotechnology R&D company based in Adelaide, Australia
- IPO December 1999 (ASX:BNO)
- ADR Program launched in US (BMICY) September 2002

Bionomics  Limited

## Bionomics Mission

- Exploit our proprietary genomics-driven discovery platforms to discover and develop innovative medical products
- Focus on diseases in need of new medical treatments with large commercial markets:
  - CNS disorders
  - Cancer

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## Business Strategy

- Establish powerful target and drug discovery platforms:
  - ionX<sup>®</sup> - CNS disorders
  - Angene<sup>™</sup> – angiogenesis related diseases
- Use these platforms to:
  - Identify genes associated with epilepsy, other CNS disorders and angiogenesis
  - Validate genes as drug targets or diagnostic/prognostic disease markers
  - Develop therapeutic and diagnostic products through partnerships/collaborations
  - Undertake internal drug discovery

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## Board of Directors

<b>Mr. Fraser Ainsworth</b>	Chairman Managing Director, Potential Energy Former Managing Director, SAGASCO Holdings
<b>Dr. Deborah Rathjen</b>	CEO and Managing Director Former Peptech Limited Member Australian Govt ABAC and IR&D Board Member Prime Minister's SEI Council
<b>Dr. Christopher Henney</b>	Executive Chairman Dendreon Inc Founder Immunex, ICOS Corporation
<b>Dr. George Morstyn</b>	Advisor to Amgen Inc Former VP Development and Chief Medical Officer, Amgen
<b>Mr. Peter Maddern</b>	Managing Director, Palmerston Projects Pty Ltd

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## Scientific Advisory Board

<b>Prof. Grant Sutherland</b>	Former Director, Dept of Cytogenetics and Molecular Genetics, WCH, Adelaide
<b>Prof. Mathew Vadas</b>	Director, Dept of Immunology, Institute of Medical and Veterinary Science, Adelaide
<b>Prof. Samuel Berkovic</b>	Director, Epilepsy Research Institute, Austin & Repatriation Medical Centre, Uni of Melbourne
<b>Dr. Errol De Souza</b>	President and CEO, Archemix Corporation, former CEO, Synaptic Pharmaceuticals
<b>Dr. Axel Ullrich</b>	Director, Dept of Molecular Biology, Max Planck Institute, Martinsried, Germany
<b>Dr. Erkki Ruoslahti</b>	Distinguished Professor and Member of Board of Trustees, Burnham Institute, La Jolla
<b>Prof. Ashley Dunn</b>	Associate Director, Ludwig Institute for Cancer Research, Melbourne

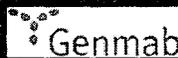
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## Senior Management

<b>Dr. Deborah Rathjen</b>	CEO and Managing Director Formerly Peptech Limited
<b>Dr. Mark Varney</b>	VP Drug Discovery Formerly Merck Research Labs, SIBIA Neurosciences, Servier
<b>Dr. Steve Petrou</b>	VP CNS Research Senior Research Fellow, Howard Florey Institute for Experimental Physiology, Melbourne
<b>Dr. Ralf Brandt</b>	Head, Cell Biology Formerly Novartis Pharma AG, Schering AG
<b>Jill Mashado</b>	Company Secretary and Finance Manager
<b>Francis Placanica</b>	VP Business Development Formerly Faulding Pharmaceuticals

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## Current Partnerships



Angene™ antibody development



ionX® molecular diagnostic development



ionX® and breast cancer transgenic animals



ionX® target validation and drug discovery



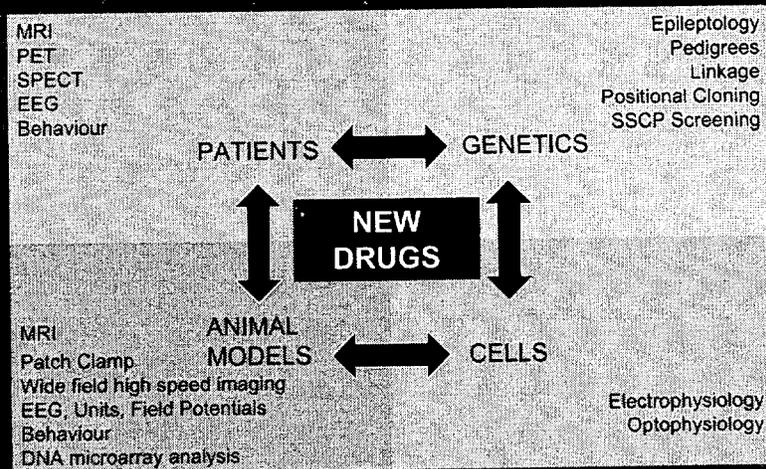
ionX® clinical samples and gene identification



ionX® molecular genetics and gene identification

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## ionX<sup>®</sup> – Bionomics' CNS Discovery Platform



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## ionX<sup>®</sup> Platform Components

- Proprietary ion channel mutations:
  - GABA<sub>A</sub> receptor
  - nicotinic acetylcholine receptor
  - sodium channels
  - potassium channels
- Fully developed models:
  - Cell lines for HTS
    - Characterised with patch clamping
  - Genetically modified mice for secondary screening
    - Characterised with behaviour, EEG, and state of the art electrophysiology

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## ionX<sup>®</sup> Platform Components

α1 β2 γ2

Combination of NR1(N299Q) NR2 on wild type

y Cre

Q/Q

loxP

short NEO long arm: 10 kb

ci

Pia Patch

R/R Q/Q

Bionomics Limited

## ionX<sup>®</sup>-driven GABA<sub>A</sub> Drug Discovery

- Bionomics program focussed on GABA<sub>A</sub> receptor
- Major inhibitory ion channel in the brain
- Strongly implicated in epilepsy
- Target for many current therapeutic drugs
- Bionomics has strong proprietary position:
  - Validated gene mutations in GABA<sub>A</sub> receptor subunits
  - Mouse model of inherited human epilepsy incorporates GABA<sub>A</sub> mutation

GABAergic terminal

GABA

GABA<sub>A</sub> Receptor

GABA<sub>B</sub> Receptor

GABA<sub>A</sub> Receptors

GABA<sub>B</sub> Receptor

Cl<sup>-</sup>

HCO<sub>3</sub><sup>-</sup>

K<sup>+</sup>

Ca<sup>2+</sup>

Bionomics Limited

## ionX<sup>®</sup>-driven GABA<sub>A</sub> Drug Discovery – Commercial Potential

- Epilepsy market
  - Currently valued at over US\$5.7bn in annual sales
  - Dominated by off-patent drugs
  - Existing drugs are ineffective for 30% patients
  - Strong opportunities for early stage development
- Other CNS indications
  - Leading indications (insomnia, migraine, depression, anxiety) valued at over US\$17bn in annual sales

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## ionX<sup>®</sup> Partnership Opportunities

- Collaborative discovery and development of GABA<sub>A</sub> drugs
- Access to Bionomics' epilepsy mouse models
- Licenses to Bionomics' validated ion channel gene discoveries for therapeutic product development

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## Angene™ – Bionomics' Angiogenesis Discovery Platform

- Angene has enabled Bionomics to discover over 160 novel angiogenesis genes to date
- Angiogenesis-related disorders:
  - Cancer
  - Inflammation
  - Cardiovascular disease
  - Ophthalmology
- Global therapeutic market opportunities exceed US\$48 billion with an 11% average annual growth rate

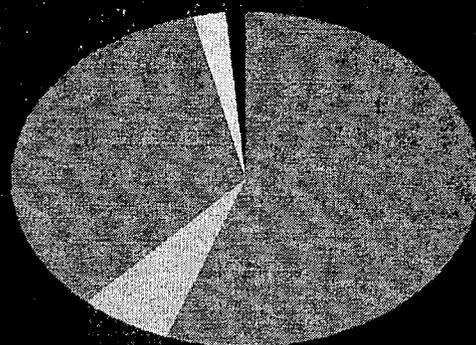
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## Angene™ Platform Components

Target Identification	<i>In Vitro</i> Validation	<i>In Vivo</i> Validation
<i>In vitro</i> model of human angiogenesis	Medium throughput capillary tube formation assays	Proprietary <i>in vivo</i> assays: • NeoVascMouse™
Macroarray and microarray analysis	RNAi and antisense technologies	Human antibodies in mice
Bioinformatics and genomics tools	Fluorescent imaging of capillary networks and image analysis	Tumor models for oncology targets
Interacting proteins and pathway elucidation	Expression screening: • tumor samples • inflammation samples	
Over 160 novel angiogenesis genes to date		
Validated Targets Assay Development for Drug Discovery Compound Profiling		

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## Angene™ Targets



■ Enzymes  
■ Kinases  
■ Transporters  
■ Receptors  
■ Ion Channels  
■ GPCRs

Predicted function of Angene™ targets

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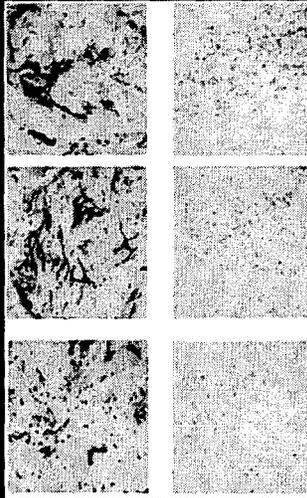
## NeoVascMouse™ *in vivo* Assay

- Assesses effect of compounds on neovascularization in synthetic sponge inserted into mice as matrix for neovascularization
- Compound administered by slow release from sponge or systemically
- Immunohistochemical quantification of neovascularization in frozen sections
- Quantifiable and reproducible results

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## NeoVascMouse™ *in vivo* Assay – Reproducible Results

No treatment



Known small  
molecule  
inhibitor

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## Angene™ Partnering Opportunities

- Access to NeoVascMouse™ *in vivo* assay
- Licenses to validated targets for angiogenesis therapies
  - Small molecule targets
  - Antibody targets
- Collaborative drug discovery programs

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## Bionomics Limited

- Partnership opportunities in CNS and cancer drug discovery and development
  - GABA<sub>A</sub> receptor targeted drug discovery
  - ionX<sup>®</sup>
  - Angene<sup>™</sup>
- Validated target license opportunities
- Experienced team
- Established partnerships

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*Commercializing gene discoveries  
to revolutionize medical treatments*

Bionomics  Limited