



31 May 2005

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

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

PROCESSED

JUN 16 2005

THOMSON
FINANCIAL

A handwritten letter 'B' in black ink.

per: Jill Mashado
Company Secretary

A large, handwritten signature in black ink, possibly reading "Dew 6/16".

Bionomics Limited

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Safe Harbour Statement

Factors Affecting Future Performance

This presentation 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' epilepsy diagnostic products, drug discovery programs, the Neurofit business, fee for service business and Bionomics' 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 further 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 presentation.



Bionomics Limited



- Exploiting proprietary genomics-driven discovery platforms, ionX® and Angene™, to discover and develop innovative medical products.
- Focus on diseases in need of new medical treatments with large commercial markets:
 - CNS disorders
 - Cancer
- Strategy to out-license diagnostics to generate near term revenues to fund drug discovery and development.

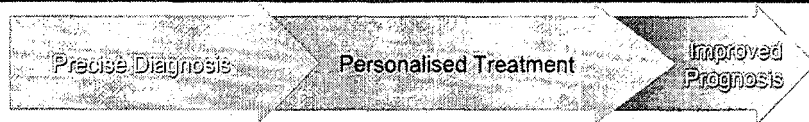


Overview

- Childhood epilepsy diagnostic released to US market
- Cancer and CNS programs advanced
- Acquisition strategy led by purchase of profitable contract researcher, Neurofit
- Major acquisition of Iliad Chemicals P/L
- Transformation to fully integrated drug discovery and development company



Revenue generation from diagnostics



- US market estimated US\$44 million pa
 - Assumes 220,000 children candidates for test pa - 10% of whom are tested at a test cost of US\$2,000
- SMEI is a severe form of childhood epilepsy
 - Up to 18% mortality and up to 50% show developmental delay and brain damage
- Early diagnosis difficult and treatment is disappointing
 - Certain drugs can make seizures worse
- Biometrics' SMEI Diagnostic Test meets clinical needs
 - Leads to early and precise diagnosis
 - Enables choice of appropriate treatment strategies



Benign Familial Seizures Panel: a new diagnostic test for epilepsy

- Estimated US market US\$78 million pa
 - Assumes 390,000 children candidates for test pa - 10% tested at a test price of US\$2,000
- Test for children less than 1 year, with seizures
- Distinguishes several early childhood epilepsy syndromes from others with more unfavourable prognoses
- Positive diagnoses of these benign conditions is likely to be reassuring to parents



CNS Drug Discovery and Development



Bionomics drug discovery programs targeting large markets with unmet needs

Epilepsy

- US\$6 billion and growing at 17% pa
- Up to 3% of the population have epilepsy
- Many drugs are poorly tolerated and have many side-effects
- 30% of patients don't gain control of seizures with current drugs

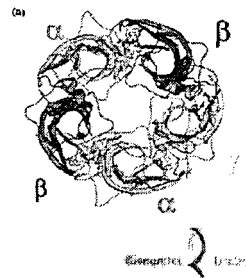
Anxiety

- US\$14.5 billion in 2003
- Approximately 2 million Australians suffer from an anxiety disorder
- Patients need medications which are non-sedating, non-addictive and don't affect memory



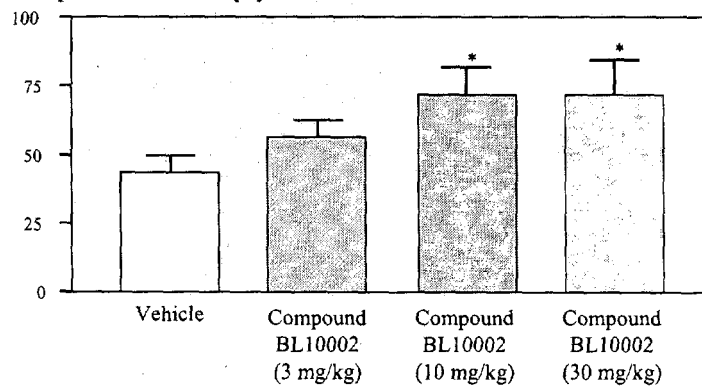
Bionomics' drug discovery targets specific subunits of the GABA-A receptor

- GABA-A α 1 subtypes mediate sedation
- GABA-A α 2, α 3 α 5 subtypes mediate anticonvulsant effects
- GABA-A α 2 and α 3 subtypes mediate anxiety
- GABA-A β -subunits mediate anesthesia



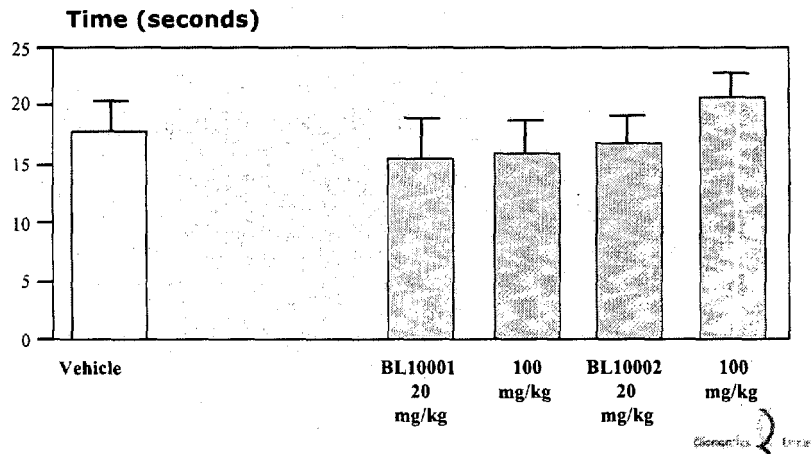
Early results from anxiety program promising: Dose dependent anxiolytic activity

Time spent in the lit box (s)



.... without sedation

Rotarod



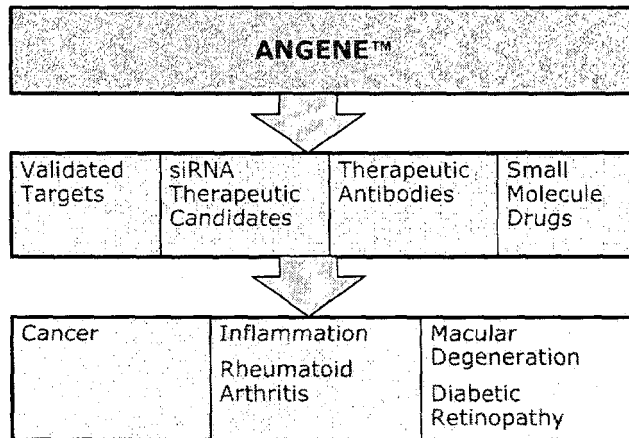
Our first acquisition - Neurofit

- Preclinical CNS business with industry leading client base
 - 8 employees, Strasbourg
- Capabilities include Multiple Sclerosis in addition to anxiety and other CNS indications
- Customers include Novartis, Serono, Biogen

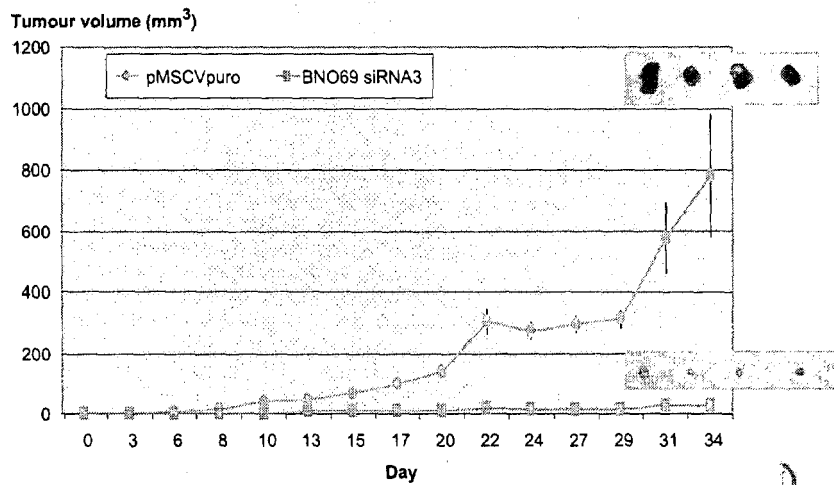
Cancer Drug Discovery and Development



Bionomics' Angene™ Platform for the Discovery and Development of Therapeutics targeting Angiogenesis



BNO69 Silencing inhibits the Tumorigenic Ability of Breast Cancer cells in vivo



Bionomics Accelerated Development Strategy

KEY ELEMENTS "4 PILLARS" TO GENERATE VALUE

- internal development
- partnering
- in-licensing in our core areas of expertise
- M&A building on our existing core skills

Characteristics of our next acquisition

- Rapid acceleration of value – driving Bionomics into the top tier of Australian biotech companies.
- Rapid development of Bionomics' pipeline focused on existing core areas.
 - Cancer – vascular targeting
 - CNS – ion channels
- Operational and capital markets synergies with all of the advantages of critical mass.



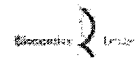
Bionomics' Acquisition of Iliad

- Iliad Chemicals P/L is a private, Australian venture backed company
- Valuable therapeutic programs in BNO's core areas:
 - Cancer (vascular targeting); and
 - CNS (multiple sclerosis ion channel target)
- Proprietary chemistry platform MultiCore® applicable to current BNO programs.
- Leverage ionX® and Angene™ platforms and Neurofit expertise.
- Key Iliad personnel to join BNO Board (Dr George Jessup) and Management (Dr Bernie Flynn).
- Promotion of BNO to circa \$30 million market cap.



Deal Structure

- Bionomics will pay AU\$9 million for Iliad in Bionomics scrip priced at 22 cents per share
- A further AU\$3 million in Bionomics scrip (22 cents per share) payable to Iliad shareholders as performance bonus subject to development and commercial progress of current Iliad programs
- Iliad shareholders will be subject to restriction agreements in relation to sale of their Bionomics shares



Valuation

- Aoris Nova independently valued Iliad at AU\$12 million to AU\$18 million
- IM will be sent to shareholders which outlines the basis for this valuation
- EGM to gain BNO shareholder approval 27 June



Merger Rationale

- ◊ Robust pipeline underpinned by integrated biology, chemistry and preclinical development
- ◊ A business model that capitalizes on the value of proprietary drug targets and proprietary chemistry for drug discovery and development
- ◊ Potential to create numerous revenue generating deals:
 - Access to chemistry
 - Access to discovery platforms
 - Drug discovery partnerships
 - Licensing of validated targets
 - Licensing of lead compounds



Complementary Focus

- ◊ CNS Drug Discovery – ion channels
 - Epilepsy and anxiety (Bionomics)
 - GABA, ligand gated ion channel
 - Multiple sclerosis (Iliad)
 - Kv1.3, potassium ion channel
- ◊ Cancer Drug Discovery – vascular targeting
 - Inhibition of new blood vessel growth
 - inhibition of BNO69
 - Disruption of established tumor vasculature through inhibition of tubulin polymerisation
 - combretastatin A4 analogues developed by Iliad



Multiple Sclerosis Market

- US\$2 billion pa in sales
- Affects approximately 350,000 people in the US
- Degenerative disease of the CNS characterised by loss of myelin sheath around nerves



Multiple Sclerosis – Kv1.3 inhibitors

- Inhibiting Kv1.3 prevents T-Cell proliferation
 - Precise targeting with effective immunosuppression
 - Validated in animal models of MS
- Existing agents in development are either complex natural product structures, peptides or poorly active small-molecules
- Iliad compounds are potent and readily synthesized
 - Most potent compound has an EC_{50} 70 nM
 - Lead optimisation in progress



Cancer - Tubulin Polymerisation Inhibition (TPI) by Combretastatin A4 analogues

- Validated target with the advantages of vascular targeting for anti-cancer therapy
 - Colchicine binding region of tubulin
 - Possibly lower toxicity
 - Tumour resistance unlikely
 - Direct access to targeted tissue
- Combretastatin A-4
 - Demonstrated vascular targeting activity in cancer
 - Problems with combretastatin A-4



Cancer: TPI Program Status

- Most potent inhibitors of tubulin polymerisation yet reported
- New analogues (> 25) with 3-40 times greater potency than Combretastatin A4
 - Superior stability
 - Superior physicochemical properties (likely to be orally bioavailable)
- Demonstrated activity in cancer model



Bionomics Pipeline 2005

| | | TARGETS | SCREENING | CHEMISTRY | PRECLINICAL |
|--------|--|---------|-----------|-----------|-------------|
| CNS | Kv1.3 Multiple Sclerosis | → | | | |
| | GABA Epilepsy | → | | | |
| | GABA Anxiety | → | | | |
| | Other CNS | → | | | |
| CANCER | Tubulin Polymerisation | → | | | |
| | BNO69 Breast Cancer Angiogenesis | → | | | |
| | Other Angiogenesis | → | | | |

MultiCore® Technology

Drug Discovery

MultiCore® technology ensures a wider range of molecular diversity is explored for activity

Lead Optimization

MultiCore® technology allows optimization of side groups on multiple "drug like" cores in parallel

Product

MultiCore technology achieves:

- Low cost synthesis
- Improved patent position

North American Comparisons with BNO

| | | | |
|--|--|---|---|
| Alnylam (Nasdaq: ALNY) | RNAi development platform | 2 preclinical programs: - AMD - Viral | USD 166m (market cap April 2005) |
| Amphora Discovery (Private) | Proprietary library and microfluidics HTS platform | 2 preclinical programs: - Cancer - Inflammation | USD 68m (total venture funding) |
| Avalon Pharmaceuticals (Private) | Proprietary forward chemical genomics HTS platform | 1 Phase I (inlicensed 2005) 1 preclinical program: - Cancer | USD 70m (Series B) |
| Ecopia (TSX: EIA.TO) | Natural compound discovery platform | 1 preclinical program: - Cancer | CAD 57m (market cap April 2005) |
| Infinity Pharmaceuticals (Private) | Small molecule chemistry platform | 1 Phase I (commenced 2005) 2 preclinical programs: - Cancer | USD 135m (total venture funding) Valued at USD 250m |

Genomics

2005 CNS Milestones

- Kv1.3: Optimized lead compounds for multiple sclerosis
- GABA-A: Identified lead series for epilepsy and anxiety
- Further licensing and revenues from epilepsy diagnostic tests

Genomics

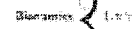
2005 Cancer Milestones

- ◊ TPI: Optimized lead compound identified for preclinical development with target to be in the clinic 2005
- ◊ Partnership deals:
 - ◊ BNO69: Validation of target and RNAi in additional clinical settings including other cancers and eye conditions as a prelude to licensing deal
 - ◊ 20 targets validated in Angene™ platform for deal making



Investment Highlights

- ◊ Exceptionally strong board and management team to execute aggressive growth strategy
- ◊ A world leader in genomics, holding extensive patents and patent applications
- ◊ One of few fully integrated biotechnology companies
- ◊ Proprietary drug discovery platforms – ionX® for CNS drug discovery and Angene™ for cancer drug discovery
- ◊ Highly promising animal results from breast cancer therapeutic program
- ◊ Two revenue generating licensing agreements for epilepsy diagnostics
- ◊ Neurofit acquisition builds CNS development capabilities and access to Pharma and major international biotechs.
- ◊ Iliad Chemicals brings advanced drug candidates in both CNS and cancer and adds chemistry expertise to BNO drug development processes



An Integrated Biotech Company

Bionomics

Iliad

Neurofit

Bionomics

focused on CNS and Cancer
drug discovery and
development

Bionomics Limited

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Dr Deborah Rathjen

CEO & Managing Director

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