Bionomics

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ASX:BNO
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Safe Harbor Statement

Bionomics

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' development candidates BNC105, BNC210, its 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.

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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.

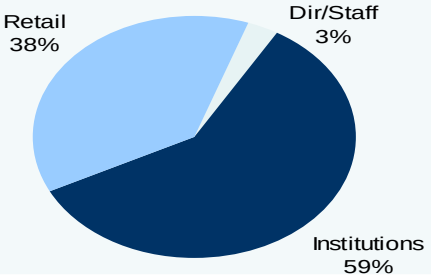
Key Facts

Bionomics

KEY STATISTICS (10.09.11)	
ASX Code	BNO
Share Price	A$0.48
52 Week High	A$0.77
52 Week Low	A$0.24
Shares on Issue	344.7m
Market Capitalisation	A$165.4m
Net Cash (30.06.11)	A$17.5m + $4.2m in July

1 YEAR SHARE PRICE PERFORMANCE

SHAREHOLDING STRUCTURE



BOARD AND MANAGEMENT

Chris Fullerton	Chairman
Deborah Rathjen	CEO & MD
Errol De Souza	Non-Exec Director
Trevor Tappenden	Non-Exec Director
Emile Andriambeloson	Head of Research Neurofit
Andrew Harvey	VP Drug Discovery
Gabriel Kremmidiotis	VP R&D
Melanie Young	CFO

Product Pipeline

Bionomics

Bionomics is a leader in the discovery and development of novel, small molecule pharmaceuticals. The company has utilized its proprietary discovery platform to successfully develop a portfolio of competitively differentiated clinical and preclinical stage programs. Bionomics targets large markets with significant unmet clinical needs.

BIONOMICS PIPELINE

	DRUG CANDIDATE/PROGRAM	DISCOVERY	PRE-CLINICAL	PHASE I	PHASE II	LICENSEE/PARTNER	POTENTIAL MARKET SIZE
CANCER	BNC105 – Renal cancer						Renal – Sutent/Pfizer; Nexavar /Bayer & Onyx (US$2bn in 2010)
	BNC105 – Ovarian cancer						Ovarian – global sales of US$3.6bn in 2010
	Undisclosed Kinase						
	BNO69						
CENTRAL NERVOUS SYSTEM	BNC210 – Anxiety/Depression						Anxiety – global sales of US$15bn annually Depression – global sales of US$11bn in 2008
	Alpha 7 nAChR modulators – Alzheimers Disease						
	GABA- A modulators - Epilepsy						
IMMUNE DISEASE	Kvl.3 Inhibitors – Multiple Sclerosis					MERCK SERONO	MS – global sales of >US$9bn in 2010

BNC210 – a next generation treatment for anxiety and depression

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OVERVIEW

- BNC210 is a "first in class" compound under development for treatment of anxiety and depression
- Anxiety disorders affect 40 million Americans each year
  - Anxiety drugs have been amongst the biggest blockbusters. eg. Valium, Prozac (US$15 billion pa worldwide)
- Depression affects an estimated 121 million people worldwide
  - Anti-depressant drug market sales almost US$11 billion in 2008
- Most anxiety drugs have major side-effects
  - Market need for an effective, safe, fast acting, non-sedating, non-addictive drug
- BNC210 performed strongly in two Phase IB clinical trials completed in March 2011, significantly reducing panic symptoms and clearly outperforming competitor Lorazepam in tests measuring attention, memory co-ordination, sedation and addiction

COMPETITIVE ADVANTAGES OF BNC210

DRUG	NO SEDATION	NO WITHDRAWAL SYNDROME	NO MEMORY IMPAIRMENT	FAST ACTING	NO DRUG/DRUG INTERACTIONS	ONCE-A-DAY DOSING
BNC210	✓	✓	✓	✓	✓	✓
VALIUM	✗	✗	✗	✓	✓	✓
PROZAC	✓	✗	✓	✗	✗	✓
BUSPAR	✗	✓	✓	✗	✓	✗

KEY STATISTICS

Phase:	▪ Moving into Phase II trials following recently completing positive Phase 1b trials
Licensing Status:	▪ Unlicensed, currently in discussions with a number of potential license partners
End Market Size:	▪ Anxiety: US$15bn worldwide ▪ Depression: US$11bn worldwide

COMPARABLE LICENSING TRANSACTION

Deal	**AMG403 – J+J**
Upfront Payment	▪ US$50m
Milestone Payments	▪ US$385m
Royalty	▪ Undisclosed

BNC105 – the leading targeted Vascular Disruption Agent for cancer treatment

Bionomics

OVERVIEW

- BNC105 is a novel "best in class" compound being developed by Bionomics as a Vascular Disruption Agent (VDA) for treatment of solid tumour cancer
- VDAs rapidly shut down existing and new tumour blood vessels with no effect on normal blood vessels
- Currently in Phase II trials for two cancer indications:
  - Renal cell cancer (US)
    - Combination of BNC105 + Afinitor well tolerated, individual patients ≥14 cycles of treatment BNC105 + Afinitor
    - Completion due in 2012
    - Standard treatments: market leader Sutent (Pfizer) had global sales of US$1bn in 2010
  - Mesothelioma (Australia)
    - Interim analysis on first 24 patients ≥25% clinical benefit with 1 objective response showing 57% reduction in tumour measurements, no further enrolment, focus on combination therapy
    - Valuable dataset for licensing package
- Clinical trial program for BNC105 expanded to include ovarian cancer trial, market estimated US$3.6bn pa
- Commercial potential comparable to Avastin (Genentech/Roche); global sales >US$6.5 billion in 2010

KEY STATISTICS

Phase:	▪ Renal -Phase II; Ovarian cancer – Phase II trial to commence 1HCY12
Licensing Status:	▪ Unlicensed, currently seeking licensing partner
End Market Size:	▪ Renal: US$2bn (Sutent, Pfizer; Nexavar, Bayer/Onyx) ▪ Ovarian cancer: US$3-6bn ▪ All solid tumours: >US$6.5bn (Avastin, Genetech/Roche)

COMPETITIVE ADVANTAGES OF BNC105

- Dual action - selectivity for tumour blood vessels combined with direct cytotoxic action on tumour cells
  - Less liable to resistance – multiple points of attack, no escape
- Highly selective and rapid vascular disruption traps and concentrates BNC105 within tumour for greater duration of action
  - Potent anti-tumour action with wide window of safety
- Enhances effectiveness of radiation treatment, cytotoxic chemotherapy eg. cisplatin and biological agents such as Avastin
  - Potential for incorporation into all solid tumour treatment regimes

COMPARABLE LICENSING TRANSACTION

Deal	**ASA404 – Novartis**
Up front Payment	▪ US$75m
Milestone Payments	▪ US$890m
Royalty	▪ Double Digit

Kv1.3 Blockers – a new approach for Multiple Sclerosis therapy

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OVERVIEW

- Kv1.3 is a preclinical stage group of compounds in Bionomics' pipeline, targeting inflammatory disorders including Multiple Sclerosis
- Utilises MultiCore® chemistry and ionX® platforms
- BNO partnered its Kv1.3 program with Merck Serono (recently extended collaboration agreement to 13 June 2012), a leading pharmaceutical company and pioneer of new treatments for Multiple Sclerosis including Rebif® (2009 sales US$2.05 billion; projected US$2.24 billion sales in 2010).
  - Revenue to BNO per successful compound: up to US$47 million in milestone payments + royalties
  - Merck Serono to fund all clinical development and commercialisation
- Annual revenue of Multiple Sclerosis drugs world wide was >US$9 billion in 2010; significant market growth projected to 2025
  - Targeting Kv1.3 also has potential in the treatment of Rheumatoid Arthritis and Psoriasis – expanded market opportunity
- Potential to lead to a patient friendly Multiple Sclerosis drug which is:
  - Highly effective with fewer side affects
  - Orally active (not injected)

LICENSING TERMS

Licensing Partner:	MERCK SERONO
Licensing Date:	▪ June 2008
Upfront Payment Received:	▪ US$2m
Milestone Payments:	▪ Up to $47m per successful compound plus royalties
Program Expenditure:	▪ Fully funded by Merck Serono

Outlook

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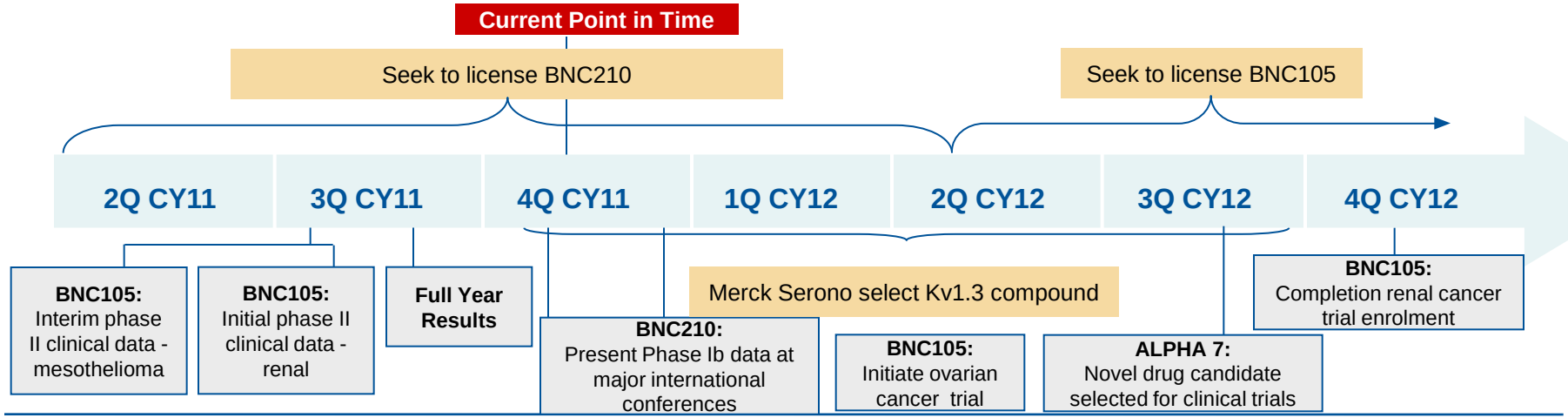
The next 12 months will see a number of important near term valuation catalysts for Bionomics shareholders, including:

- Initiation of Phase IIa clinical trial and licensing agreements for BNC210
- Milestone payments from Merck Serono in relation to Kv1.3 program
- Alpha 7 program - Alzheimers drug candidate selected for clinical trials
- BNC105 Phase II clinical trial progress with completion of renal cancer trial and initiation of ovarian cancer trial

KEY SHARE PRICE CATALYSTS AND DE-RISKING EVENTS



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