

ASX ANNOUNCEMENT 14 November 2012

CEO & Managing Director, Dr Deborah Rathjen, Presentation to Bionomics' Annual General Meeting 2012

It is a pleasure to warmly welcome you to Bionomics' 2012 AGM. At our last AGM, we said the 2012 financial year would be transformational for our business and today we are better positioned than ever to service an urgent need that is emerging in big pharma.

OUR BUSINESS MODEL

As many of you would be aware, over the coming five years some \$137 billion in products will face competition from generic drugs. At Bionomics our business model aims to capitalise on big pharma's requirement to secure new products, new markets and new revenue streams. Our model is simple:

- Employ our proprietary drug development platform to advance "first in class" and "best in class" drug compounds that target multi-billion dollar market opportunities;
- Identify partners with the development, regulatory and commercial capability to take our compounds to market;
- Secure deals (sometimes in the pre-clinical phase) that will extract cash and deliver shareholder value early out of the portfolio – without compromising the commercial upside at the back end; and
- Continuously look for new compounds and candidates that fit with our competitive strengths, allowing us to diversify the portfolio and manage risk.



Our Business Model

- Over the next five years some \$137 billion in big pharma products will face competition from generics
- The need to fill the pipeline of new, blockbuster drug candidates is urgent
- Bionomics business model is positioned to capitalise on the requirements for big pharma to fill their pipeline
- · Our business model is simple:
 - Employ our proprietary drug development platform to advance "first in class" and "best in class" drug compounds that target multi billion dollar market opportunities;
 - Identify partners with the development, regulatory and commercial capability to take our compounds to market;
 - Secure deals (sometimes in the pre-clinical phase) that will extract cash and deliver shareholder value early out of the portfolio – without compromising the commercial upside at the back end; and
 - Continuously look for new compounds and candidates that fit with our competitive strengths, allowing us to diversify the portfolio and manage risk.

BALANCED PORTFOLIO OF DRUG CANDIDATES

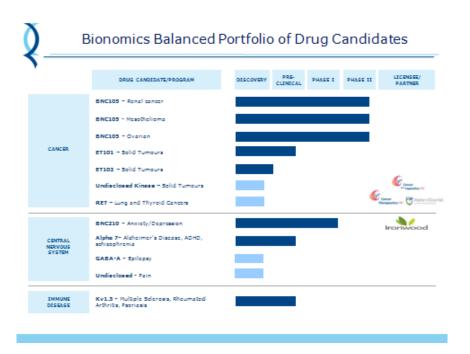
During the 2012 financial year, we have considerably advanced our position as a successful, fully integrated, international drug discovery and development company through a number of key strategic moves.

Bionomics now has a well-balanced yet diverse pipeline, reflecting both Bionomics' strengths and the versatility of our drug discovery platforms.

This year has seen steady advancement of our lead drug candidate BNC105 through its Phase II clinical trial in renal cancer and expansion of the program to include ovarian cancer. Our oncology franchise has also been considerably boosted through the Eclipse Therapeutics acquisition which brings not only exceptional expertise but also an immediate addition of two promising preclinical programs, the first of which, ET101, is expected to enter human trials in 2014.

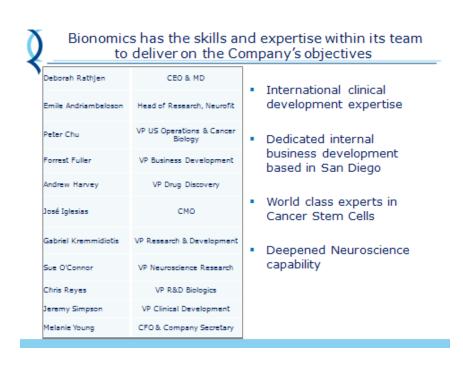
Our CNS franchise has been similarly boosted now that the BNC210 program has been successfully out-licensed. We have brought online a major new program called Alpha 7 which targets the improvement of memory in Alzheimers Disease and other disorders. The selection of a drug candidate for IND enabling studies and clinical development is anticipated before year end.

Last but not least is the welcome return to our control of the Kv1.3 program which allows us to expand its applications and partnering potential. This program is focused on developing new treatments for common autoimmune disorders and has been extended beyond the multiple sclerosis focus of our former partner, Merck Serono, and now includes rheumatoid arthritis, psoriasis, and uveitis. We are now progressing drug candidates in two parallel business streams – one for topical formulation and the second for orally active drug candidates.



BIONOMICS HAS THE SKILLS AND EXPERTISE WITHIN ITS TEAM TO DELIVER ON THE COMPANY'S OBJECTIVES

Our drug discovery and development efforts are being prosecuted by a very experienced team which now includes José Iglesias and Jeremy Simpson who bring biotech and pharma clinical trial experience; a dedicated business development function located in San Diego with Forrest Fuller joining the team this month; world class expertise in cancer stem cells and in the generation of antibody therapeutics in Peter Chu and Chris Reyes. We have also deepened our Neuroscience capability under the leadership of Sue O'Connor. I'd like to acknowledge the strong teams that form the core of our company. We have brought in key hires with pivotal experience in the industry and we are proud to have built a diverse group with complementary skills.



Another key pillar in the transformation of our business is establishment of a platform in the USA. This was achieved with the acquisition of Eclipse Therapeutics which has broadened our oncology capability into the exciting arena of cancer stem cell therapeutics.

INTRODUCING BIONOMICS INC.

The acquisition of San Diego-based Eclipse Therapeutics has positioned Bionomics as a leading player in new therapies targeting cancer stem cells. The Eclipse technology, which is directed at attacking the "seeds" of cancer, benefitted from significant investment by Biogen Idec over a seven year period. Consistent with Bionomics philosophy of targeting large market opportunities, the market for cancer stem cell targeting therapies is estimated to grow to US\$8 billion by 2018. The acquisition of Eclipse has brought to Bionomics two well differentiated drug candidates to tackle this new and evolving market and a small, talented team of scientists to progress these assets.



Introducing Bionomics Inc

The acquisition of Eclipse Therapeutics has positioned BNO as a leading player in cancer stem cells

- Wholly owned subsidiary based in San Diego USA
- Therapies targeting cancer stem cells (CSCs): the "seeds" of cancer
 - Estimated \$8B market opportunity by 2018
 - Significant investment over 7 years by BIIB
 - Drug candidate ET101 expected in human trials in 2014
 - Second drug candidate ET102 & CSC drug discovery platform

BNO has acquired Eclipse Therapeutics, a Biogen Idec (NASDAQ:BIIB) spin-out:

- \$10M consideration in Bionomics shares valued at 41.76 cents per share
- Eclipse shareholders, including Biogen Idec, currently hold ~5.2% stake in BNO

Eclipse founders and key personnel transfer to Bionomics Inc:

- Expertise is intact
- Leading global position in CSC gained by BNO

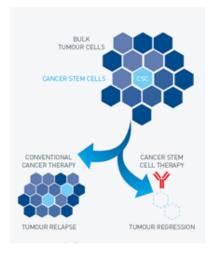
CANCER STEM CELLS ARE THE NEXT SIGNIFICANT ADVANCE IN CANCER THERAPY

Why are cancer stem cells attracting so much interest? It is because these are the germ cells of a tumour. It is believed that the key to ultimately defeating cancer and preventing tumours from recurring may be new drugs that specifically target and eradicate cancer stem cells. However, a different approach is needed because cancer stem cells are more resistant to traditional chemotherapy and radiation therapy than other cancer cells. Our newly acquired, leading edge expertise in this field is centred on specifically targeting cancer stem cells through the use of antibodies. I hope you will now appreciate how well this approach of attacking the tumour at its source fits into and complements our oncology program that is focused on creating effective therapies for the treatment of solid tumours.



Cancer Stem Cell Therapeutics

- The missing link in treating solid tumours
- CSCs are resistant to conventional therapies
- Eradicating CSCs may prevent tumour recurrence
- Complements the BNC105 program by targeting the "seeds" of cancer



You can see from this next slide that targeting cancer stem cells is "hot property" from a number of perspectives – in deal-making, capital markets and M&A – and as I have indicated earlier your company is at the forefront of this emerging therapeutic area.



Market Opportunity: CSCs Next Significant Advance in Cancer Treatment

Company	Technology	Financials	
OncoMed	CSC antibodies targeting cancer gene/signalling pathways (Wnt & Notch) Strong preclinical trial results	Strategic alliance: Bayer Total: >\$1,975M Upfront: \$40M Strategic alliance: GSK Total:>\$1,400M	
		 Upfront: undisclosed 	
Verastem	Screening platform CSC-like cells Preclinical Wnt program Clinical focal adhesion kinase (FAK) program	IPO 2012 (NASDAQ:VYST) Market cap~\$212M	
Boston Biomedical	 Advanced clinical development programs (Phase I, II, planning Phase III) 	Acquired by Dainippon for >\$2.6B in 2012 (\$200M upfront)	
Roche (Arius)	Pre-IND anti-CD44 antibody	Acquired for \$184M cash by Roche	

BNC210: PARTNERED WITH IRONWOOD PHARMACEUTICALS

The second key event this year was the out-licensing of anti-anxiety and depression agent, BNC210, to Ironwood Pharmaceuticals in the largest deal achieved to date for a Phase I clinical asset from the Australian biotechnology sector. The deal is worth up to US\$345 million in upfront and research payments, milestone payments, including an anticipated US\$13 million to January 2014, plus royalties on product sales. Importantly, this deal validates our business model. Successful implementation of a well-considered out-licencing strategy means that the asset is placed into the hands of a partner who is positioned to progress its commercialisation in a timely way. The deal is structured to give good financial return to Bionomics and to help to fund our broad and deep portfolio of clinical and preclinical drug candidates. More deals mean we can take optimum advantage of the Company's proprietary technology platforms to generate more drug candidates and/or advance their development where appropriate. With the Ironwood deal we have made a substantial start on our plan to build sustainable revenue streams from multiple drug candidates.

Last week we were able to announce that Ironwood has submitted an IND to enable the next clinical trials of BNC210, or rather IW-2143 as it is now known, to occur in the US.

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BNC210: Partnered with Ironwood Pharmaceuticals

The Ironwood IW-2143 (BNC210) Partnership:

- Up to US\$345 million in upfront, development (clinical trials) and regulatory milestone payments (i.e. all milestone payments are presales).
- Royalty on net sales of products incorporating BNC210 (IW-2143).
- · US\$13 million anticipated to January 2014.
- · Ironwood will fund all clinical trials and other development activities.

2012 activities directed towards:

- · Increasing understanding of biology
- · Undertaking formulation development
- Additional manufacture
- Advancing IND
- · Initiating Phase Ib and planning for Phase II
- ✓ IND lodged with the FDA

BIONOMICS' PIPELINE PROGRESS

Perhaps the most exciting development of all this year has been the sweeping progress made in our pipeline. So let's review what our portfolio looks like in 2012.

I would now like to take a brief look at each of the programs we will focus on in the coming year beginning with BNC105.

BNC105: "BEST IN CLASS" VASCULAR TARGETING AGENT WITH UNIQUE DUAL MECHANISM OF ACTION



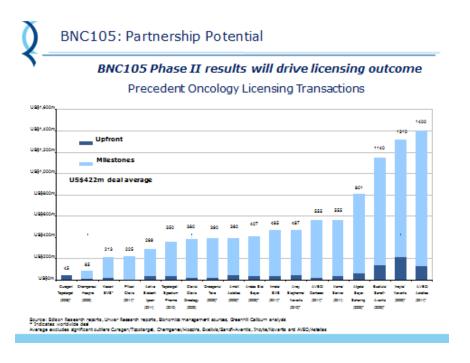
BNC105: "Best in Class" Vascular Targeting Agent with Unique Dual Mechanism of Action

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TREATMENT	Solid Cancers	
MODE OF ACTION	Proprietary, novel vascular targeting agent Rapidly shuts down existing & new tumour blood vessels No impact on normal blood vessels	
CLINICAL/ REGULATORY	Phase II Renal cell cancer (US, Australia, Singapore) Market size >US\$2.5bn Sutent, Pfizer; Nexavar, Bayer/Onyx; Afinitor, Novartis Afinitor combination has potential to extend to breast cancer and pancreatic tumours, for example Phase I/II Ovarian cancer (Australia, New Zealand, US) Market size ≈US\$2.2bn in 2011 Carboplatin, BMS; Gemcitabine, Eli Lilly Drug combination has potential to extend to lung, prostate and breast cancer	
BENEFITS	Dual Action - selectively targets both tumour blood vessels and cancer cells Rapid, Potent Action - works rapidly to shut down tumour blood vessels, potent anti-tumour sction as a single agent, tumour less likely to escape treatment Enhances Effectiveness of Other Cancer Treatments - delivers synergistic anti-cancer effects in numerous combinations (e.g., anti-VEGF)	
MARKETS	The current market size in treatment of all solid tumours is >US\$10b (Avastin, Genentech/Roche sales > US\$5b in 2011)	

By now you are all familiar with our most advanced program which has produced arguably the leading vascular disrupting agent (VDA) in development in the world. Though currently in human trials for the treatment of renal and ovarian cancers, BNC105 targets a range of solid tumours and is being trialled in combination with established chemotherapy regimens that are used to treat breast, prostate, pancreatic, gastric and lung cancers. Its potential for treating a range of tumour types means BNC105 has the potential to be a blockbuster drug and has drawn comparison with Roche's Avastin which achieved sales in excess of US\$5.42 billion in 2011. In August the Company announced that it had been granted its key patent relating to BNC105 by the United States Patent and Trademark Office. This patent is at the centre of the BNC105 patent portfolio.

On the clinical front I am also pleased to update on the status of the Phase I component of the renal cancer trial. Twelve patients were enrolled and, as previously advised, the combination of BNC105 and Novartis' drug Afinitor was safe and well tolerated. As per the protocol patients received doses of BNC105 which ranged from 8 mg/m2 to 16 mg/m2. Three patients received the top dose of BNC105 namely 16mg/m2. Of the 12 patients enrolled across all dose levels, 8 patients achieved stable disease and 7 of those patients received over 18 cycles of treatment. As at the last notification to Bionomics 1 patient remains on trial and this patient has now received 22 cycles of treatment.

BNC105: PARTNERSHIP POTENTIAL



We are eagerly awaiting the release of data from the BNC105 clinical trials in 2013, including the Phase II component of the renal cancer trial, which we believe will trigger the negotiation of a license agreement for this lead asset.

We are delighted to have incorporated two new pre-clinical programs into our oncology pipeline this year with our recent acquisition of Eclipse Therapeutics. With the intended out-licence of BNC105 on the horizon, the timing of the expansion of our oncology capability in the direction of cancer stem cell therapeutics couldn't be better. The acquisition also adds an additional platform

technology, CSC Rx Discovery[™], to Bionomics' already impressive technology base comprised of the proprietary Multicore®, Angene® and ionX® drug discovery platforms. CSC Rx Discovery[™] can identify antibody and small molecule therapeutics that inhibit the growth of cancer stem cells. Together, these platforms are a formidable engine from which to drive future growth.

BIONOMICS' ALPHA 7 OFFERS A NEW APPROACH TO MEMORY IMPROVEMENT IN ALZHEIMER'S DISEASE

Now let us turn to our major new opportunity in the CNS field that was promoted into our development pipeline in the past year and this was flagged through the announcement of a new patent filing in February. Since then the Company has continued to build its intellectual property position in this area.



Alpha 7: More than Alzheimer's Disease

- Market opportunity includes many neurodegenerative and psychiatric disorders:
 - Alzheimer's Disease, Parkinson's Disease, Multiple Sclerosis, Schizophrenia, ADHD and mood and anxiety disorders

	Prevalence	Global sales
Alzheimer's Disease	9.7 Million	\$5.6 Billion
Cognitive Dysfunction in Schizophrenia	3.4 Million	No approved products
ADHD	44.9 Million	\$4.2 Billion

- a7 NAChR receptor agonists improve attention, working memory and recognition memory
- allow "fine-tuning" of receptor activity with a broader margin of safety
- New drug candidate for IND enabling studies and clinical development Q4, 2012

The Alpha 7 program is centred on compounds that improve cognition through activation of the alpha7 nicotinic acetylcholine receptor. They have the potential to treat Alzheimer's disease and other conditions such as Parkinson's disease, Multiple Sclerosis, Schizophrenia and ADHD by improving memory and may also reduce brain tissue inflammation.

OUR ALPHA 7 PROGRAM HAS CLEAR COMPETITIVE ADVANTAGES

We are very encouraged by the performance of our potential drug candidates compared with competing compounds. This table highlights a number of clear advantages of the Bionomics' Alpha 7 compounds:

- Our compounds stimulate the receptor only when needed allowing greater efficacy without increasing side-effects or causing receptor desensitization.
- They have a rapid onset of action. A single dose is able to improve memory in pre-clinical
 models significantly. In contrast a single dose of benchmark agonist compounds does not
 improve memory significantly or with consistency in these same animal models.
- The BNO compounds are more potent and highly selective.



Alpha 7: Clear competitive advantages

Characteristics	Bionomics Alpha 7 compounds	Competing Agonist compounds
Potent	✓	×
Acute efficacy, indicative of rapid onset of action in an animal model of memory	✓	×
Produce greater response than maximum concentrations of other ligands eg: acetylcholine and nicotine	✓	×
Preserve the normal signalling patterns of the receptor	✓	×
Do not cause receptor desensitization	✓	*
No potential for development of tolerance	✓	×
Selectivity over other nicotinic receptors	✓	✓

In preclinical testing Bionomics' α7 compounds outperform benchmark compounds including Donepezil, a Pfizer product marketed as Aricept that reported US\$2.5 billion global sales in 2011.

Given the strong commercial and clinical interest in agents that stimulate memory, we will be looking to secure an early licensing deal for this program.

The $\alpha 7$ nicotinic acetylcholine receptor is a highly promising target for treatment of memory impairment associated with Alzheimer's disease, which contrasts with the historical focus on β -amyloid in the search for new therapies. The recent spate of drug failures illustrates firstly the importance of this indication to big Pharma (because they are pouring lots of cash into it), and secondly their potential appetite for partnering (because their own amyloid based initiatives have failed).

Bionomics is now at the forefront of new therapeutic approaches in the treatment of Alzheimer's disease with a growing data package to support future partnering of the program. Positive allosteric modulation of the receptor offers a sound therapeutic strategy for the improvement of memory because it has the advantage of only activating the receptors in tune with the natural rhythm of brain signalling.

KV1.3: TARGETING THE US\$46 BILLION GLOBAL IMMUNOMODULATORS MARKET

In June Bionomics announced that it had successfully regained control of the Kv1.3 program following a four year collaboration with Merck Serono. Since then we have taken the opportunity to accelerate and broaden the program. Kv1.3 blockers have the potential to address a considerable portion of the global market for immunomodulators which is valued at over \$46 billion. There is considerable commercial interest in Kv1.3 as a target and Bionomics is now taking advantage of this interest.



Kv1.3: Targeting the ~US\$46 billion global immunomodulators market

Multiple Sclerosis (MS) is an autoimmune disease affecting nerve function that leads to numbness, difficulty in coordination, memory loss and ultimately paralysis

- Annual revenue of MS drugs worldwide >US\$12b in 2010; significant market growth projected to 2025
- · Potential to lead to a patient friendly MS drug which is:
 - · Highly effective with fewer side affects
 - · Orally active (not injected)

Other indications include Rheumatoid Arthritis and Psoriasis

- The global RA market was estimated at US\$9 billion in 2009 and is forecast to grow by 6% annually to reach US\$14.3 billion by 2017
- The psoriasis market was estimated at US\$3.4 billion in 2009 and is estimated to grow to US\$6.8 billion in 2019

OUTLOOK

The outlook for Bionomics indicates that the year ahead will see your Company working towards the achievement of significant milestones across the portfolio. We will be announcing soon the selection of a drug candidate for the Alpha 7 program. This will trigger a cascade of activity leading to initiation of clinical trials that includes GMP manufacture and the commencement of IND enabling studies. Our new program ET101 is at the same stage as Alpha 7 and has a similar development plan through 2013. The clinical spotlight however will without doubt be on BNC105. We are on track for completion in H12013 of enrolment in two trials - both the ovarian Phase I trial and renal Phase II trial for BNC105. Further supporting data presentations will be made at AACR & ASCO ahead of the release of trial results post mid-year. This strategy of building the profile of the drug at key industry conferences worked well for us in clinching the BNC210 deal last year which we hope to replicate successfully for our lead asset BNC105. In parallel with all of this, as you have already heard, Bionomics is also aggressively seeking new partnership opportunities for the Kv1.3 program to exploit its exciting, multiple applications for which we have been receiving considerable interest. As you can see we anticipate a healthy flow of news and key milestones into 2013 and beyond.



Outlook & Partnership Focus

Key Program Milestone	Anticipated Timing (CY)
BNC105- Solid Tumours	
- Complete Phase II renal cancer trial enrolment	Q1, 2013
- Results from renal cancer trial	2H, 2013
- Complete ovarian Phase I trial enrolment	1H, 2013
- New data presentations at AACR & ASCO	1H, 2013
ET101 - Cancer Stem Cells/solid tumours	
Initiation of IND enabling studies & GMP manufacture	1H, 2013
Alpha 7 – Alzheimers Disease/memory improvement	
Drug candidate selection	2H, 2012
Initiation of IND enabling studies & GMP manufacture	1H, 2013
Kv1.3 - Multiple Sclerosis/autoimmune disease	
Partnership	2013

FINANCIAL

Reassuringly, our financial position going into this busy year is very sound with cash at 30 June 2012 of \$17.34M. Our revenue streams going forward are stronger than ever before thanks to our licensing strategy. Milestone payments this financial year from our Ironwood partnership are confidently expected and additional sums in excess of \$3M are anticipated in the form of an Australian R&D Tax Incentive refund with further payments anticipated in FY14. An additional benefit of having a wholly owned US-based subsidiary is access to US grant funding and this is being actively explored. Neurofit, our France-based contract research business focused on CNS drugs, continues to add value to Bionomics' CNS pipeline as well as to attract contract research revenues from its services to large pharmaceutical multinationals and international biotech companies.



Strong Financial Position

FY12 Results:

- Cash at 30 June 2012:\$17.34M
- Net cash inflow for the 12 month period: \$1.29M
- Revenue for the period: \$6.83M
- Operating loss after tax:\$3.14M
- Anticipated >\$3M cash from Australian R&D Tax Incentive refund in FY13
 - with potential for similar Incentive to be received in FY14
- · Anticipated ~\$10M from Ironwood
- Access US grant funding

CONCLUDING REMARKS

It has been an eventful and productive year and I would like to sincerely thank the Board for its vision and steadfast confidence that allowed us to sign off on the two of the most significant transactions in the Company's history in 2012. As a result Bionomics is now tracking towards becoming a tier one biotech company not only in Australia but on the world stage.



Concluding Remarks

- Bionomics has world class discovery and development capabilities targeting multi-billion dollar market opportunities in Cancer, CNS, and Immune Diseases.
- Bionomics technology platforms deliver diversified product pipeline, while corporate partnering manages execution risk.
- The acquisition of Eclipse (now Bionomics Inc) has positioned BNO as a leading player in cancer stem cells, adding antibody therapeutics and a US platform.
- The licensing of anxiety drug BNC210 to Ironwood has the potential to deliver very significant shareholder returns via milestone payments and royalties.
- Clinical trial success of BNC105 in renal cancer and ovarian cancer should lead to a lucrative licensing transaction.
- A range of additional pipeline drug candidates are advancing including Alpha 7 Alzheimer's candidate and Kv1.3 Multiple Sclerosis candidates with strong partnering potential.
- Bionomics is well positioned to execute its plan to build sustainable revenue streams from multiple drug candidates.

Thank you to all shareholders for your support.

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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. BNC105 offers blockbuster potential if successfully developed. A clinical program is also underway for the treatment of anxiety disorders and depression based on IW-2143(BNC210), a novel compound which stimulates neurite outgrowth. IW-2143 is partnered with Ironwood Pharmaceuticals.

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. These platforms underpin Bionomics' established business strategy and Bionomics is committed to securing partners for its key compounds.

Factors Affecting Future Performance

This announcement 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, IW-2143(BNC210), our acquisition of Eclipse Therapeutics and ability to develop products from their platform, its licensing deal with Ironwood Pharmaceuticals, 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.

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 downturn in our customers' markets, our failure to introduce new products or technologies in a timely manner, Ironwood's decisions to continue or not continue development of IW-2143, 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. Results of studies performed on competitors' products may vary from those reported when tested in different settings.

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.