ASX ANNOUNCEMENT
18 April 2012

Joint Bionomics and Ironwood Roadshow

18 April 2012: Bionomics Limited (ASX:BNO) today announced Dr Deborah Rathjen CEO & Managing Director of Bionomics and Dr Mark Currie Senior VP, R&D and Chief Scientific Officer of Ironwood Pharmaceuticals will provide an update on BNC210 development activities to institutional investors and brokers in Australia.

The presentations by Dr Rathjen and Dr Currie are attached and can also be found on Bionomics’ website www.bionomics.com.au

FOR FURTHER INFORMATION PLEASE CONTACT:

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About BNC210

BNC210 is a novel small molecule discovered by Bionomics through a targeted medicinal Chemistry program. Data from several preclinical studies indicate that BNC210, through modulation of a novel pathway, has anti-anxiety activity and promotes neurite outgrowth in vitro. In a Phase I study that compared BNC210 with Lorazepam, healthy volunteers who took BNC210 has no evidence of impaired attention when compared with when they took Lorazepam. Electroencephalography (EEG) data gathered on healthy subjects dosed with BNC210 in the study provided pharmacodynamic evidence of anti-anxiety activity without sedation.

About Ironwood

Ironwood Pharmaceuticals (NASDAQ:IRWD) is an entrepreneurial pharmaceutical company dedicated to the art and science of great drug making. Linaclotide, Ironwood’s GC-C agonist, is an investigational drug for the treatment of irritable bowel syndrome with constipation (IBS-C) and chronic constipation (CC). The efficacy portion of linaclotide’s development program has been completed and supports the recently submitted NDA for both indications, as well as the MAA submission in Europe for the IBS-C indication.
Ironwood also has a growing pipeline of additional drug candidates in earlier stages of development. Ironwood is located in Cambridge, Mass.

**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 BNC210, a novel compound which stimulates neurite outgrowth. BNC210 is partnered with Ironwood Pharmaceuticals. Bionomics has a partnered program with Merck Serono for new treatments for multiple sclerosis and other autoimmune disorders.

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, BNC210, its Merck Serono alliance, 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, 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.
Safe Harbor Statement

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Bionomics Business Model

- Platform technologies: track record of discovering high value and innovative drug candidates
- Target large markets: Cancer (all solid tumours), CNS (anxiety, depression, cognitive impairment), Immune Diseases (MS)
- Realise value through partnership: Licensing assets, generating revenue from upfront and milestone payments and product royalties
- Track record of corporate partnering with near term revenue prospects
- Building a portfolio of drug candidates yielding multiple commercial opportunities and revenue streams
- Cancer drug candidate BNC105 and Alpha 7 program (Alzheimers, cognitive impairment) next near term candidates with potential to partner or license

Bionomics Product Pipeline

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<thead>
<tr>
<th>DRUG CANDIDATE/PROGRAM</th>
<th>DISCOVERY</th>
<th>PRE-Clinical</th>
<th>PHASE I</th>
<th>PHASE II</th>
<th>LICENSOR/ PARTNER</th>
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<tbody>
<tr>
<td>BNC210 (IW2143) – Anxiety/Depression</td>
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<tr>
<td>Alpha 7 nAChR modulator – Alzheimer’s Disease</td>
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<td>GABA-A modulators – Epilepsy</td>
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CENTRAL NERVOUS SYSTEM

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<tr>
<td>BNC105 – Renal cancer</td>
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<td>BNC105 - Mesothelioma</td>
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<td>BNC105 – Ovarian</td>
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CANCER

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<tr>
<td>Kv1.3 Inhibitors – Multiple Sclerosis</td>
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IMMUNE DISEASE

Key Compound ➤ Early Stage Compound
Ironwood BNC210 Partnership

- Largest deal by an Australian biotech for Phase I asset and a substantial global deal:
  - Up to US$345 million in upfront and development and regulatory milestone payments
  - Royalties on net sales of products incorporating BNC210 US$13 million over the next 24 months, including US$3 million initial payment
- Ironwood is responsible for worldwide development and commercialization

US$330m deal average Phase I and Phase II

BNC210 (IW-2143) – a next generation compound with potential in the treatment of anxiety and depression

<table>
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<tr>
<th>OVERVIEW</th>
<th>ADVANTAGES OF BNC210</th>
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<tr>
<td>- Anxiety disorders affect 40 million Americans each year</td>
<td>BNC210</td>
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<td>- Anxiety drugs have been amongst the biggest blockbusters. eg. Valium, Prozac (US$5-7 billion pa worldwide)</td>
<td>VALIUM</td>
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<td>- Most anxiety drugs have major side-effects</td>
<td>PROZAC</td>
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<td>- Market need for an effective, safe, fast acting, non-sedating, non-addictive drug</td>
<td>BUSPAR</td>
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| - BNC210 performed strongly in two Phase Ib clinical trials, significantly reducing panic symptoms and clearly outperforming competitor Lorazepam in tests measuring attention, memory co-ordination, sedation and addiction | * Based on preclinical data and results of Phase Ib trial comparing BNC210 with Lorazepam.
| - BNC210 has been administered to 108 healthy subjects to date with excellent safety profile |
BNC105 – “Best in Class” targeted Vascular Disruption Agent for cancer treatment

OVERVIEW
- BNC105 is a Vascular Disruption Agent (VDA) for with the potential to treat all solid tumours
- Phase II trials:
  - Renal cell cancer (US)
  - Mesothelioma (Australia)
- Phase I/II trial in ovarian cancer to commence in 2Q, CY2012
- Market size:
  - Renal: >US$2.5bn (Sutent, Pfizer; Nexavar, Bayer/Onyx; Afinitor)
  - Ovarian cancer: ≈US$2.2bn in 2011
  - All solid tumours: >US$5bn in 2011 (Avastin, Genentech/Roche)

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

BNC105 Rapidly and Selectively Shuts Down Tumour Blood Vessels and Inhibits Tumour Growth

untreated

BNC105 treated

Day 30  Day 39  Day 43
Day 49  Day 51  Day 60
BNC105 development expands to Ovarian cancer

Ovarian cancer is 5th leading cause of cancer-related death among women
21,880 new cases & 13,850 deaths from ovarian cancer in US in 2010. ~$2.2b pa spent in US on treatment of ovarian cancer

- Strong BNC105 preclinical data supports ovarian cancer trial:
  - Potent cytotoxic for platlin sensitive and resistant ovarian cancer cells
  - Inhibits tumour growth and improves survival in cisplatin-resistant ovarian cancer model
  - Treatment of lung cancer-bearing animals with BNC105 + cisplatin results in 100% survival
- Trial approved in Australia and US and will commence in Q2, 2012

Why Bionomics chose Ironwood for BNC210

- Largest deal by an Australian biotech for Phase I asset and a substantial global deal
- Ironwood’s significant clinical expertise and patient-centric approach to drug development
  - Demonstrated through the development of linaclotide
- Strategic fit with Ironwood pipeline
  - Focus on highly symptomatic disorders
- Entrepreneurial culture and the people

Introducing Dr Mark Currie - Ironwood’s Senior VP R&D and CSO

- Has led Ironwood’s R&D efforts since 2002
- Previously directed cardiovascular and CNS research as VP of Discovery Research at Sepracor Inc
- Initiated, built, and led discovery pharmacology and also served as director of arthritis and inflammation at Monsanto Company
Bionomics: a leading international drug discovery & development company

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 in a number of therapeutic areas.

Bionomics is harnessing its technology platform to achieve commercial outcomes with specific products in large markets.

The company has a business model capable of generating and sustaining positive shareholder return.
Large end markets with unmet needs

Three core proprietary technology platforms lie at the heart of Bionomics, delivering multiple product opportunities.

Bionomics’ has three key compounds in development (BNC105, BNC210, Kv1.3) which are focussed on treatments for solid cancers, CNS conditions and immune diseases respectively.

Bionomics also has a number of other promising early stage compounds.

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<tr>
<th>PROPRIETARY TECHNOLOGY PLATFORMS</th>
<th>KEY DRUG CANDIDATES</th>
<th>CURRENT PHASE</th>
<th>END MARKET &amp; POTENTIAL SIZE</th>
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<tbody>
<tr>
<td>MULTICORE</td>
<td>CANCER BNC105</td>
<td>PHASE II</td>
<td>Renal – Sutent (Pfizer) : Nexavar (Bayer/Onyx) / Afinito (Novartis) global sales of &gt;US$2.5bn in 2011</td>
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<td>Ovarian – US$2.2bn in 2011</td>
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<td>All solid tumour types – Avastin (Genentech/Roche) global sales of &gt;US$5bn in 2011</td>
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<tr>
<td>ANGENE</td>
<td>CNS BNC210</td>
<td>PHASE Ib</td>
<td>Anxiety – global sales of US$5-7bn annually</td>
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<td>IONX</td>
<td>IMMUNE DISEASE KV1.3</td>
<td>PRE-CLINICAL</td>
<td>Multiple Sclerosis – global sales of &gt;US$12bn in 2010</td>
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BNC105: Potential paradigm shift in renal cancer treatment

- BNC105 has the potential to represent an entirely new treatment paradigm for patients with renal cancer
- BNC105 is as effective as Sutent in reducing tumour size in animal model
  - Sutent (Pfizer) is the current market leader in the treatment of renal cancer
  - Sutent 2010 global sales US$1b
- Encouraging initial results from US renal cancer trial
  - Combination of Afinitor & BNC105 safe & well tolerated
  - Target 134 enrolled by the end of 2012
- Over 100,000 people die of renal cancer in the world each year; is 7th most common cancer
BNC105: Multiple opportunities and fast track to market

Phase I trial – patients with advanced solid cancers
Phase II trial – Renal
BNC105 + Afinitor (Novartis)
Phase I/II trial – Ovarian
BNC105 + Carboplatin (BMS) + Gemcitabine (Eli Lilly)
Other cancers with potential for BNC105 + Afinitor treatment – Breast, Gastric, Liver, Pancreatic Neuroendocrine tumours
Other cancers with potential for BNC105 + Gemcitabine + Carboplatin treatment include Lung cancer
BNC105 + Cisplatin treatment – include Prostate, Breast, Melanoma, Sarcoma, Mesothelioma

Fast Track Approval – Renal
Fast Track Approval – Ovarian

Precedent Oncology Licensing Transactions

Precedent Oncology Licensing Transactions

Source: Edison Research reports, Linwar Research reports, Bionomics management sources, Greenhill Caliburn analysis
* Indicates worldwide deal
Average excludes significant outliers Curagen/Topotarget, Chemgenex/Hospira, Exelixis/Sanofi-Aventis, Incyte/Novartis and AVEO/Astellas

Upfront
Milestones
US$422m deal average

Source: Edison Research reports, Linwar Research reports, Bionomics management sources, Greenhill Caliburn analysis
* Indicates worldwide deal
Average excludes significant outliers Curagen/Topotarget, Chemgenex/Hospira, Exelixis/Sanofi-Aventis, Incyte/Novartis and AVEO/Astellas
Phase I trial: BNC210 vs Lorazepam

- Double blind, placebo controlled, cross over design trial
- BNC210 was compared with Valium-like anti-anxiety drug Lorazepam. BNC210 clearly outperformed it in tests measuring attention, memory co-ordination, sedation & addiction
- EEG data showed for the first time BNC210-related changes in human brain activity indicative of efficacy

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<th>DRUG/EEG ACTIVITY</th>
<th>δ</th>
<th>γ</th>
<th>α</th>
<th>α1</th>
<th>α2</th>
<th>β</th>
<th>β1</th>
<th>β2</th>
<th>β3</th>
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<tr>
<td>BNC210</td>
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<td>LORAZEPAM</td>
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- Increased sedation
- Reduced anxiety

A single dose of BNC210 suppressed CCK-induced anxiety in healthy volunteers

- Randomised, double-blind, placebo controlled cross over design
- Panic attacks induced by administration of CCK-4
  - Panic symptom severity assessed using the Panic Symptom Scale ("PSS")
  - 59 subjects enrolled; 15 subjects classified as having a panic attack upon CCK-4 administration
- BNC210 significantly reduced panic symptoms in subjects and faster than placebo
  - Reduction of both the total PSS score (total symptoms) and the intensity of symptoms in subjects when measured 10 minutes after the induction of a panic attack
  - Number and intensity of symptoms decreased faster than with placebo this reduction in symptoms was significant (p<0.05 for both the total symptom score and the intensity of symptoms)
  - BNC210 treated subjects returned to normal emotional status within 10 minutes, compared to 60 minutes on placebo. This trend correlated with the statistically significant reduction in panic symptoms by BNC210
α7 Nicotinic Acetyl Choline Receptor Positive Allosteric Modulators (PAM)

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

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<th>Prevalence</th>
<th>Global sales</th>
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<tr>
<td>Alzheimer’s Disease</td>
<td>9.7 Million</td>
<td>$5.6 Billion</td>
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<tr>
<td>Cognitive Dysfunction in Schizophrenia</td>
<td>3.4 Million</td>
<td>No approved products</td>
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<tr>
<td>ADHD</td>
<td>44.9 Million</td>
<td>$4.2 Billion</td>
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- α7 NACHr PAMs improve attention, working memory and recognition memory:
  - Normalizing the physiological response
  - Preserving the integrity of neurotransmission
  - Allows more effective tonic cholinergic input and show less receptor desensitization
  - Avoid toxicity associated with cholinergic excess and high influx of Ca++
- Advantages of PAM: allows “fine-tuning” of receptor activity with a broader margin of safety
- **New drug candidate for IND enabling studies and clinical development Q3. 2012**

BNC1881 reduces scopolamine-induced deficit in the rat Novel Object Recognition test

Vehicle
- Scopolamine
- Scopolamine/1881 3mg/kg
- SCOP/1881 10 mg/kg

n=12-22 rats.

^ p ≤ 0.01; ^^^ p ≤ 0.001; Significantly different to Scopolamine treated rats

Recognition Index: $RI = \frac{t_B}{t_A + t_B} \times 100$
CVs of Executive Team

DR DEBORAH RATHJEN
CEO & MANAGING DIRECTOR
A seasoned biotech executive of almost 20 years, Dr Deborah Rathjen joined Bionomics in June 2000 from Celltech Limited, where she was Manager of Business Development and Licensing. Dr Rathjen was a co-inventor of Celltech's TNF technology and leader of the company's successful defence of its key TNF patents against a legal challenge by Biogen, providing Celltech with a critical win in December 2002. In 2003, she led the company through the sale of a key Plasma Protein business, a strategy that delivered a cash inflow of £190m. This success saw the company grow from a £45m market capitalisation to a £450m market capitalisation. Dr Rathjen has significant strategic and product licensing experience. Dr Rathjen is Chairperson of the Auditech Board, and is a former member of the Prime Minister's Science Engineering and Innovation Council. In 2004 Dr Rathjen was awarded the Auditech President's Medal for her significant contribution to the Australian biotechnology industry. In 2008 she received a Distinguished Alumni Award from Flinders University, in 2009 the BioSingapore Asia Pacific Woman Entrepreneur of the Year, and in 2010 Bio Innovation SA Industry Leader Award.

DR EMILE ANDRIAMBELOSON
HEAD OF RESEARCH AT NEUROFIT
Dr Emile Andriambeloson joined Novartis in 2008 from Novartis Pharma and has played an important role in the development of a number of compounds. His career has also been marked by his strong involvement in the key industry bodies in the area. Dr Andriambeloson joined Novartis in 2008 as Vice President of the Laboratory of Neurodegeneration and Neuroprotection, where he led the development of the compound CNTX in the treatment of Multiple Sclerosis. During this period he also co-founded a consulting business in 2011. He received a PhD from the University of Strasbourg in France and is recognized for his expertise in pharmacology. He is the author of 18 articles published in highly regarded peer reviewed scientific journals. Dr Andriambeloson's previous positions include Novartis Pharma (Basel, Switzerland), Heart Research Institute (Sydney, Australia) and University of New South Wales (Sydney, Australia).

DR ANDREW HARVEY
VICE PRESIDENT DRUG DISCOVERY
Dr Andrew Harvey joined the chemistry group at Bionomics in 2007 and has led the group in the Multiple Sclerosis collaboration with European pharmaceutical company, Merck Serono, since the collaboration began in June 2008. He played a key role in the successful execution of the deal, which led to the discovery and development of a novel MS compound for Phase IIb clinical trials. In 2007, Dr Harvey was instrumental in the establishment of the new chemistry facilities at the Bionomics headquarters in Adelaide. During his prior employment at The Walter and Eliza Hall Institute for Medical Research, Dr Harvey was awarded a National Health and Medical Research Council Industry Fellowship for his research in identifying new treatments for Multiple Sclerosis. He holds a PhD and a BSc (Hons) from University of Melbourne, and is a member of the Australian Biotechnology Industry Association.

DR GABRIEL KREMmidiotIs
VICE PRESIDENT RESEARCH AND DEVELOPMENT
Molecular geneticist and immunologist Dr Gabriel Kremmidiotis joined Bionomics as Head of Bioinformatics in January 2002 and his role has since expanded to Vice President Research & Development. Formerly Senior Medical Scientist at the Department of Cytogenetics & Molecular Genetics at the Women's & Children's Hospital in Adelaide, Dr Kremmidiotis has a PhD and a Bachelor of Science (Honours) from Flinders University. He has published research findings in 23 internationally-acclaimed scientific publications including Cell, Human Molecular Genetics and American Journal of Human Genetics, and is a member of the Human Genetics Society of Australia.

CVs of Scientific Advisory Board

DR ERROL DE SOUZA
Dr Errol De Souza is an internationally recognised leader in CNS research and development. He is the former President and CEO of leading US biotech companies Synaptic Pharmaceutical Corporation and Artherics Corporation and is currently President and CEO of the US company Biodel. Prior to these roles, Dr De Souza held senior management positions within Amersham (NYSE:ABT) and its predecessor biotech Markon Roussel Pharmaceuticals, Inc. Most recently, Dr De Souza was President and CEO of Sanofi-Aventis Canada. Dr De Souza was instrumental in the discovery and development of drug candidates through Phase IIIa clinical trials for CNS and inflammatory disorders and was a co-founder and former Chief Scientific Officer of Neuroscience Businesses. Dr De Souza is also currently an Adjunct Professor at the Centre for Molecular and Behavioural Neuroscience at Rutgers University in New Jersey and has served on multiple Editorial Boards, NIH Committees as well as on the Board of Directors of several companies.

PROFESSOR PAUL FITZGERALD
Professor Paul Fitzgerald is Professor of Psychiatry, Deputy Director and Consultant Psychiatrist at Alfred Psychiatry Research Centre, a joint research centre of Monash University and the Alfred Hospital in Melbourne. He is aa psychiatrist with extensive experience in the use of imaging techniques to understand brain function in disorders of depression and schizophrenia. He has published over 90 papers and received grant funding from the National Health and Medical Research Council as well as a number of US based foundations. Professor Fitzgerald is also actively involved in the supervision of a variety of local and international trainees including the scientific and review committees of Neuroscience Victoria.

DR TIM HARRIS
Dr Tim Harris is currently VP Translational Medicine, Biogen-Idec and a former Director of the Advanced Technology Program at SACE Frederick. From March 2005 to September 2006 Dr Harris was President and CEO of Novecast Pharmaceuticals in San Diego. Prior to joining Novecast, Dr Harris founded SGZ Pharmaceuticals (formerly Structural Genomics) where he built the company to >120 employees, raised >$65m, and generated >$25 million in revenue over a six year tenure as CEO. Before founding SGZ, Dr Harris was VP, R&D at Sequana/Akera. Dr Harris started his industry career at Cellexus (now UCSF Pharma) in the United Kingdom as a Senior Molecular Biologist and subsequently spent five years at Celgene Group Research as Director of Biotechnology. He received a PhD in Virology and a BSc with honors in Biochemistry from the University of Birmingham, United Kingdom.

DR ANN HAYES
Dr Ann Hayes worked for 22 years for GlaxoWellcome, initially in research, with particular expertise in the areas of CNS and pain. Before the GSK merger, she was a Director in Drug Discovery, and was involved in determining long-term Discovery strategy, in portfolio management and in discovery project management. Ann MH GSK in 2001 and set up a business as an independent consultant, focusing on the development of therapeutic agents for the treatment of pain. She has also held non-executive director positions at Theratis, Iona and Sirin (which was sold to Arakis). She currently consults regularly for Cellex and Shire, as well as doing ad hoc consulting for a number of small companies and VCs.
MR RICHARD MORGAN

Mr Richard Morgan has over 25 years experience in pharmaceutical research and development, many as an R&D executive at GlaxoWellcome where he was International Head of Toxicology and Predrinal Outsourcing. Over his career he has been responsible for the preclinical safety evaluation of over 100 new chemical entities (NCEs), covering all major therapeutic areas. Products he has contributed to include Lamictal (Epilepsy), Zomig (Migraine), Malarone (Malaria), Wellbutrin (Anti-depressant) and Exosurf (Infant RDS). Richard operates his own consultancy company (R&B HealthCare Ltd), providing advice on drug development and toxicology. He is a member of the Board of Cogstate Ltd and Advisory Boards of a number of Australian biotech companies.

DR CHRISTOPHER J SWEENEY

Dr Christopher J Sweeney received his medical degree from the University of Adelaide, South Australia in 1992, and completed an internship at the Royal Adelaide Hospital. From 1994 to 1997, Dr Sweeney was an Internal Medicine resident at Gundersen Lutheran Medical Center, La Crosse, Wisconsin, and from 1997 to 2000 he was a fellow in Hematology / Oncology at Indiana University Medical Center. Dr Sweeney is certified by the American Board of Internal Medicine in Internal Medicine and Medical Oncology. He is a member of several professional societies, including the American Society of Clinical Oncology, Eastern Cooperative Oncology Group and American Association for Cancer Research. He has authored and co-authored more than 60 peer reviewed articles, as well as several monographs and book chapters. He has focused his academic career on cancer drug development by performing (1) phase I dose escalation trials with pharmacokinetic and pharmacodynamic endpoints including multiple anti-angiogenic drugs (2) phase I trials of new chemotherapeutics in patients with renal or liver dysfunction (3) pharmacogenetic and biomarker discovery studies (4) trials of targeted therapies with a focus on bladder and prostate cancer and (5) drug discovery in the laboratory. Dr Sweeney has served as the Associate Director for Clinical Research for the NCI-designated, Indiana University Cancer Center and the Co-Leader of the Experimental Developmental Therapeutics Program of the NCI designated Indiana University Cancer Center. In 2005 Dr Sweeney was elected Chairman of the Hoosier Oncology Group. Dr Sweeney has served on the Program Committee and the Cancer Education Committee of the American Society of Clinical Oncology and is on the Editorial Board for ASCO's "Journal of Clinical Oncology." He has peer reviewed funding from the PhRMA Foundation (Faculty Development Award), the National Institutes of Health and the Department of Defense. He joined the RAHC and Director of Clinical Trials in January 2008.
Safe Harbor Statement

This presentation contains forward looking statements. Investors are cautioned not to place undue reliance on these forward-looking statements, including, but not limited to, the potential approval of the New Drug Application and Marketing Authorization Application for linaclotide, linaclotide’s potential as a treatment for IBS-C or chronic constipation, linaclotide’s market potential in the U.S., our anticipated launch timeline for linaclotide, the anticipated pre-commercial milestones from our linaclotide partnerships, and anticipated commercialization efforts for linaclotide prior to and following potential launch. Each forward-looking statement is subject to risks and uncertainties that could cause actual results to differ materially from those expressed or implied in such statement. Applicable risks and uncertainties include the risks that the linaclotide regulatory review does not progress as expected, serious adverse events arise in patients that are deemed to be definitely or probably related to linaclotide treatment, the incidence or severity of diarrhea in patients treated with linaclotide is higher than expected, and our commercialization activities do not progress as expected, as well as risks related to the difficulty of predicting regulatory approvals, the acceptance of and demand for new pharmaceutical products, the potential prescribing habits of doctors, the impact of competitive products and pricing, and whether linaclotide will ever be commercialized successfully. Applicable risks also include those that are listed in our Annual Report on Form 10-K for the year ended December 31, 2011, in addition to the risk factors that are listed from time to time in our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, and any subsequent SEC filings. We undertake no obligation to update these forward-looking statements to reflect events or circumstances occurring after this presentation. These forward-looking statements speak only as of the date of this presentation. All forward-looking statements are qualified in their entirety by this cautionary statement.
Ironwood Pharmaceuticals

Corporate Overview

- Entrepreneurial pharmaceutical company that discovers, develops and intends to commercialize innovative human medicines
- Based in Cambridge, Mass
- Founded 1998
- IPO 2010 ($1.5B market cap)
- 300 employees
- Network of partnerships to globally manufacture and co-commercialize linaclotide
  - Forest Laboratories (U.S.)
  - Almirall, S.A. (Europe)
  - Astellas Pharma (Japan & certain other Asian countries)

Recent Highlights

Linaclotide

- US: PDUFA June 2012
  - Notified by FDA: no Advisory Committee scheduled
- EU: MAA under review (Sept. 2011 submission)
  - 120 day response received
- 14 abstracts accepted at DDW (May 19-22, San Diego)
- Continued progress in preparation for global commercial launch
- Evaluating life cycle management opportunities (e.g., pediatric and other indications)

Pipeline

- Advancing pipeline
  - Gastrointestinal, central nervous system, respiratory
  - IW-9179, IW-2143 (BNC210), several other early development programs

Corporate

- Cash, cash equivalents and available-for-sale securities
  - Ended 2011 with ~$164M
  - Additional $85M+ in net proceeds from offering (Feb. 2012)
  - Potential for $85M approval milestone from Forest and $20M launch milestones from Almirall
Emerging Product Profile Looks Encouraging

Locally Acting GC-C Agonist

Sustained Pain Reduction*

Symptoms Return upon Discontinuation**

Patient Satisfaction at 26 Weeks*

* Linaclotide Phase 3 IBS-C trial '302
** Linaclotide Phase 3 IBS-C trial '31

Initial U.S. Focus: >10M Therapy-seeking, Dissatisfied, Multi-symptom Sufferers

IBS-C

Abdominal pain, bloating, constipation
13 million patients

Abdominal symptoms: bloating, discomfort, constipation
19 million patients

Constipation only
8 million patients

>15M seek care, MDs prescribe or increases PEG

>70% not satisfied with treatment

>10M patients
Abdominal & Constipation Symptoms
- Actively seeking care – 3 times annually
- Dissatisfied with current treatment

BNC-20/IW-2143 Development Update

BNC210

The Opportunity

- BNC210 shows potent, rapid-onset anxiolytic efficacy in multiple standard animal models of anxiety
- Potent stimulation of neurite outgrowth with antidepressant activity demonstrated in a rat model of depression
- BNC210 lacks side effects seen with marketed antidepressant and anxiolytic compounds (preclinical and clinical evidence)
- Good safety and tolerability was demonstrated in 4 Phase 1 clinical trials (N=108 healthy volunteers); plasma levels equate to those required for efficacy in preclinical animal models
- Supports corporate vision of creating innovative medicines for symptomatic disorders
Ironwood Development Expertise
Development essentials relevant to IW2143 honed through linaclotide experience

- Preclinical research and development team
- Strong clinical development
  - In house clinical research and operations
- Regulatory pathway
  - In house Regulatory Affairs and Regulatory Operations
- Industry leader in developing formats for Patient Reported Outcomes (PRO)
- Supply chain management
  - In house CMC, QA and Pharmaceutics Development teams

Ironwood PRO Expertise
Industry leader in bringing consumer insights to the development process

- Patient Reported Outcome (PRO) is any report of the status of a patient's health condition that comes directly from the patient
- Common existing instruments may require (re)validation
- PRO instruments can be used to support claims in labeling (FDA Final Guidance on PROs, Dec 2009)
- IRWD member of C-Path (PRO consortium)

IRWD developed the first IBS-C PRO tool that meets FDA's 2009 PRO guidelines

C-Path Membership
- PRO Consortium formed in late 2008, in cooperation with the FDA and pharma
- Enables collaboration among experts from different organizations
- Access to and involvement of FDA (SEALD) personnel including immediate feedback
- 8 disease areas, including IBS, Functional Dyspepsia (FD), Asthma and Depression
  - IRWD chairs IBS and FD working groups
IW-2143 Development Team Functional Reps

Program Lead
Program Manager
Discovery Pharmacology
Preclinical
AP-DMPK
Pharmaceutical Dev
Quality Assurance
Clinical Research
Clinical Operations
Regulatory Affairs
Regulatory Operations
Corporate Development
Commercial
Intellectual Property

IW-2143 Development Team

Biology Subteam

Chemistry and Manufacture Subteam

Target Product Profile/Clinical Development Subteam

IW-2143 Development Subteams
Building on the IW-2143 Foundation

- **Current activities directed towards:**
  - Increasing understanding of biology
  - Formulation development
  - Manufacture
  - Advancing IND
  - Initiating Phase 1b and planning for Phase 2a
  - Expanding the preclinical safety program to enable later stage trials

- **Driving to human proof of concept in anxiety**
- **Dose ranging and ultimately pivotal studies**

Targeting Patients We Understand & Treat

- **Characteristics...**
  - Skewed towards women
  - Interplay of pain and anxiety
  - PRO-driven
- **Resulting in...**
  - A source of frustration for clinicians
  - Despair for patients: "their own fault", "catastrophizing"
  - Patients become marginalized from meaningful treatment because poor understanding of functional pain and associated co-morbidities
- **Product provides functional and emotional benefit...**
  - Patients need treatment strategy
  - Validation and education

* 30% of interstitial patients report IBS

**Common Co-morbidities**

- Depression
- Anxiety
- Chronic pain
- PTS
Linaclotide Shows Promise for Millions of Suffering Patients

- >10M IBS-C and CC patients suffer frequent and bothersome symptoms, actively seek care, and are NOT SATISFIED
- Phase 3: Met all 66 U.S and E.U. primary & secondary endpoints in four trials
IBS-C & CC Patients Suffer Frequently from Bothersome Abdominal and Bowel Symptoms

Mean Days / Year Experiencing Symptoms

Bothersome Symptoms

IBS-C

CC + abdominal symptoms

Sources: Chey, W. et al. “Frequency and Bothersomeness of Symptoms, Health Care Seeking Behavior and Satisfaction with Therapy in IBS-C Patients Meeting ROME I/II Criteria: Results of a Population Based Survey”, data on file.


GERD Appears to be a Reasonable Disease Analogue for IBS-C and Chronic Constipation

Both are prevalent disorders with frequent and bothersome symptoms

<table>
<thead>
<tr>
<th></th>
<th>IBS-C/CC</th>
<th>GERD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prevalence</td>
<td>40 million</td>
<td>46 million</td>
</tr>
<tr>
<td>Frequency of symptoms</td>
<td>110–135 days/yr</td>
<td>120–140 days/yr</td>
</tr>
<tr>
<td>Bothersomeness of symptoms</td>
<td>45–53%</td>
<td>38%</td>
</tr>
<tr>
<td>Dissatisfaction with treatment</td>
<td>70% (fiber / lax)</td>
<td>60–65% (OTC antacid/H2)</td>
</tr>
</tbody>
</table>

GERD Market Grew Rapidly with Effective Therapy

- Captured both OTC and Rx treatment patients seeking care
- Stronger adherence driven by recurrent symptoms
- New patients activated by the hope of symptom relief

>-$12B annual US sales
(proton pump inhibitors ONLY)

U.S. Patients
(in Millions)

GERD patients


Prevalence
H2 Rx (Zantac, Tagamet, Pepcid, etc.)
PPI Rx (Prilosec, Nexium, Prevacid, etc.)

Rx treated GERD patients

GERD patients

Sources: EPI= US Census; and Locke G.R. et al. “Prevalence and Clinical Spectrum of Gastroesophageal Reflux: a Population-Based Study in Olmsted County, Minnesota, 1987- Rx treated patients: IMS NPA factored by IMS NDTI GERD ICD9 codes; converted from TRxs to patients using PharMetrics Days of Therapy (dec/hrAug07).

Market Research Indicates that Physicians Report High Likelihood to Prescribe Linaclotide

Physicians Intent to Prescribe

Percent of Physicians

Do not plan to use
Rx once post-marketing safety is proven
Rx immediately

Gastro

PCP

Sources: Decision Resources “How will the First-In-Class Launches of Linaclotide, Rifaximin, and Asimadoline Shape the U.S. Irritable Bowel Syndrome Market? A Physician and Payer Perspective”, March 2011.
Market Research Indicates that Physicians Report Willingness to Treat a Significant Proportion of Patients with Linaclotide

Physicians Allocation to Linaclotide

IBS-C

Percent of Patients

All Patients

Dissatisfied Patients

CC

Sources: Data on file