



***Presentation to AGM
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Safe Harbor Statement



Factors Affecting Future Performance

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Bionomics: a leading international drug discovery & development company



Proven technology platform

Owners of intellectual property

Multiple Opportunities, Exciting drug pipeline

Cancer
CNS
Immune Diseases

Partnering Opportunities

Merck
Serono
Collaboration

Large end markets with unmet needs

Near-term value catalysts and de-risking events

Well funded business

Strong management team

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.

2011 has been a transformational year.

The company has a business model capable of generating and sustaining positive shareholder return.

Platform technologies deliver strong product pipeline



PROPRIETARY TECHNOLOGY PLATFORMS		KEY DRUG CANDIDATES			CURRENT PHASE	END MARKET & POTENTIAL SIZE
MULTICORE	Proprietary, diversity oriented chemistry platform for the discovery of small molecule drugs	CANCER	BNC105	Potential solid tumour cancer treatment that works by shutting down blood vessels in tumours	PH II	- Renal – Sutent (Pfizer) & Nexavar (Bayer/Onyx) global sales US\$2b in 2010 - Ovarian – US\$3.6b 2010 - All solid tumour types – Avastin (Genentech/Roche) global sales of >US\$7.8b 2010
ANGENE	An angiogenesis target & drug discovery platform	CNS	BNC210	First in class drug to treat anxiety & depression	Moving into PH II	- Anxiety – global sales of US\$15b pa - Depression – global sales US\$11b in 2008
IONX	A set of novel technologies for identification of drugs targeting ion channels for CNS indications	IMMUNE DISEASE	KV1.3	Potential treatment for multiple sclerosis (in partnership with Merck Serono)	PRE-CLINICAL	Multiple sclerosis – global sales >US\$12b in 2010

FY11 Highlights - Clinical



Successful BNC210 clinical trials:

- BNC210 significantly reduced panic symptoms & faster than placebo
- BNC210 clearly outperformed comparator Lorazepam in tests measuring attention, memory, co-ordination, sedation & addiction
- Administered to 108 healthy subjects with excellent safety profile

Extension of Merck Serono R&D partnership:

- Research term extended, signalling progress in multiple sclerosis program

Progress in the discovery of new drug candidate for Alzheimer's disease

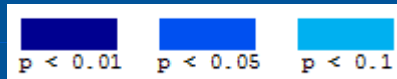
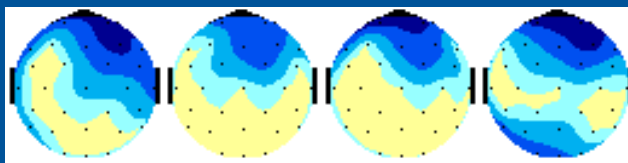
After year end:

- BNC105 cancer clinical trials reached key milestones
- BNC105 clinical program expanded

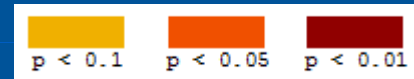
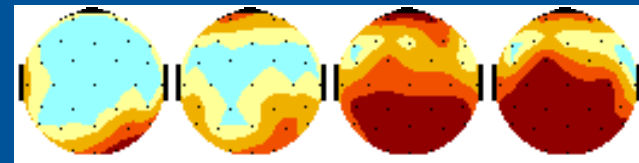
***BNC210** : An improved treatment for acute and generalised anxiety disorders & for depression*

Brain maps showing BNC210 effect on EEG signatures of clinical trial subjects

alpha



beta



BNC210 Phase Ib trial success



BNC210 offers dramatic competitive advantages over existing treatments:

- *Excellent relief of anxiety*
- *No evidence of side-effects including sedation, memory impairment or tendency to addiction*
- *Rapid onset of action*

Panic attack trial results:

- Significantly reduced number & intensity of panic symptoms, improved recovery – faster than placebo
- Subjects treated with BNC210 returned to normal emotional status within 10 minutes of administration, compared with 60 minutes on placebo

BNC210 vs Lorazepam



- 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

DRUG/EEG ACTIVITY	δ	γ	α	$\alpha 1$	$\alpha 2$	β	$\beta 1$	$\beta 2$	$\beta 3$
BNC210			↓		↓	↑			↑
LORAZEPAM	↑	↓	↓	↓	↓	↑	↑	↑	↑


Increased sedation


Reduced anxiety

BNC210 targets \$15b Anxiety market



Treatments for anxiety are highly commercially successful products in the pharmaceutical industry. Sales of treatments for anxiety & related conditions ~US\$15b pa.

Current treatments suffer side effects including sedation, memory loss & addiction. Others are unsatisfactory for patients due to slow onset of action (weeks) or because they cause sexual dysfunction.

Panic attacks are an important segment of the anxiety market:

Xanax, a benzodiazepine like Valium, was first drug approved for treatment of panic:

- Most prescribed psychiatric drug in US
- In 2009, 1 prescription for Xanax was issued every second in the US

A serious health problem:

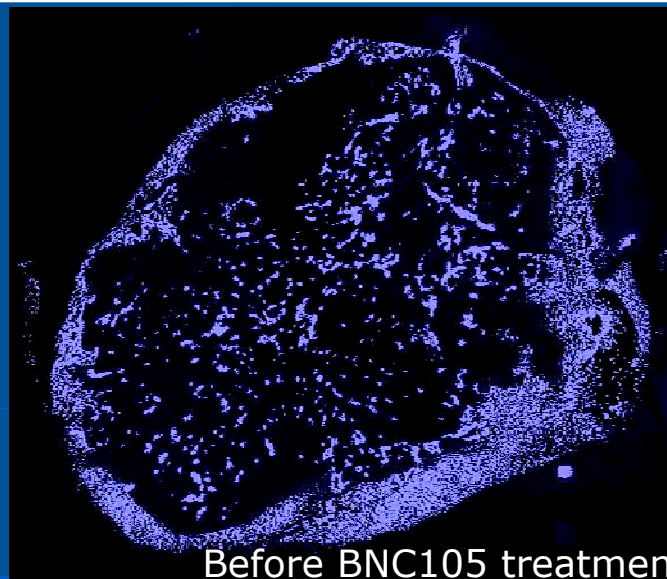
- 18% of adult Americans, ~ 40m people are affected by anxiety
- ~ 6m Americans have a diagnosed panic disorder with the peak onset of panic attacks between the ages of 15-19
- Panic attacks may be sudden, may appear unprovoked & are often disabling

BNC210 vs other anxiety treatments

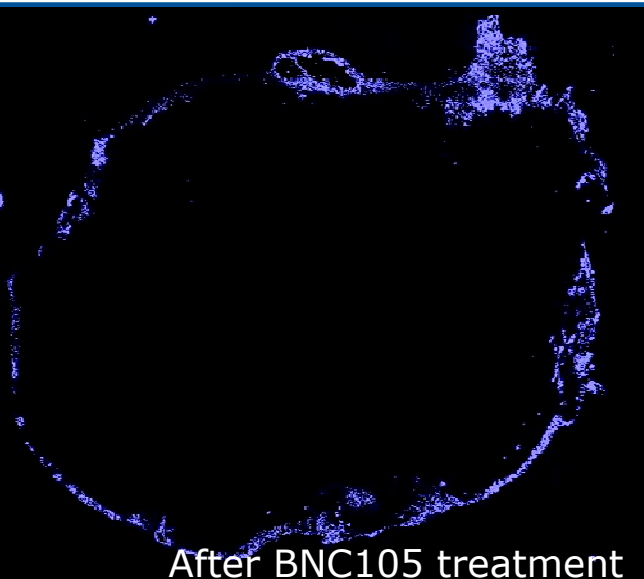


DRUG	No Sedation	No Addiction	No Memory Impairment	Fast Acting	No Drug / Drug Interactions	Once-a-Day Dosing
BNC210	✓	✓	✓	✓	✓	✓
Valium	✗	✗	✗	✓	✓	✓
Prozac	✓	✗	✓	✗	✗	✓
Buspar	✗	✓	✓	✗	✓	✗

***BNC105: A Potent & Selective Tumour
Vascular Disrupting Agent for the Treatment
of Solid Tumours***



Before BNC105 treatment



After BNC105 treatment

BNC105: Strong clinical trial progress



BNC105 is a proprietary, novel “best in class” drug being developed for the treatment of solid tumours.

- *BNC105 causes highly selective and rapid tumour blood vessel shutdown*
- *BNC105 has potent anti-tumour action with wide window of safety*
- *BNC105 enhances effectiveness of other forms on cancer treatment*

These features make BNC105 a world leading Vascular Disrupting Agent

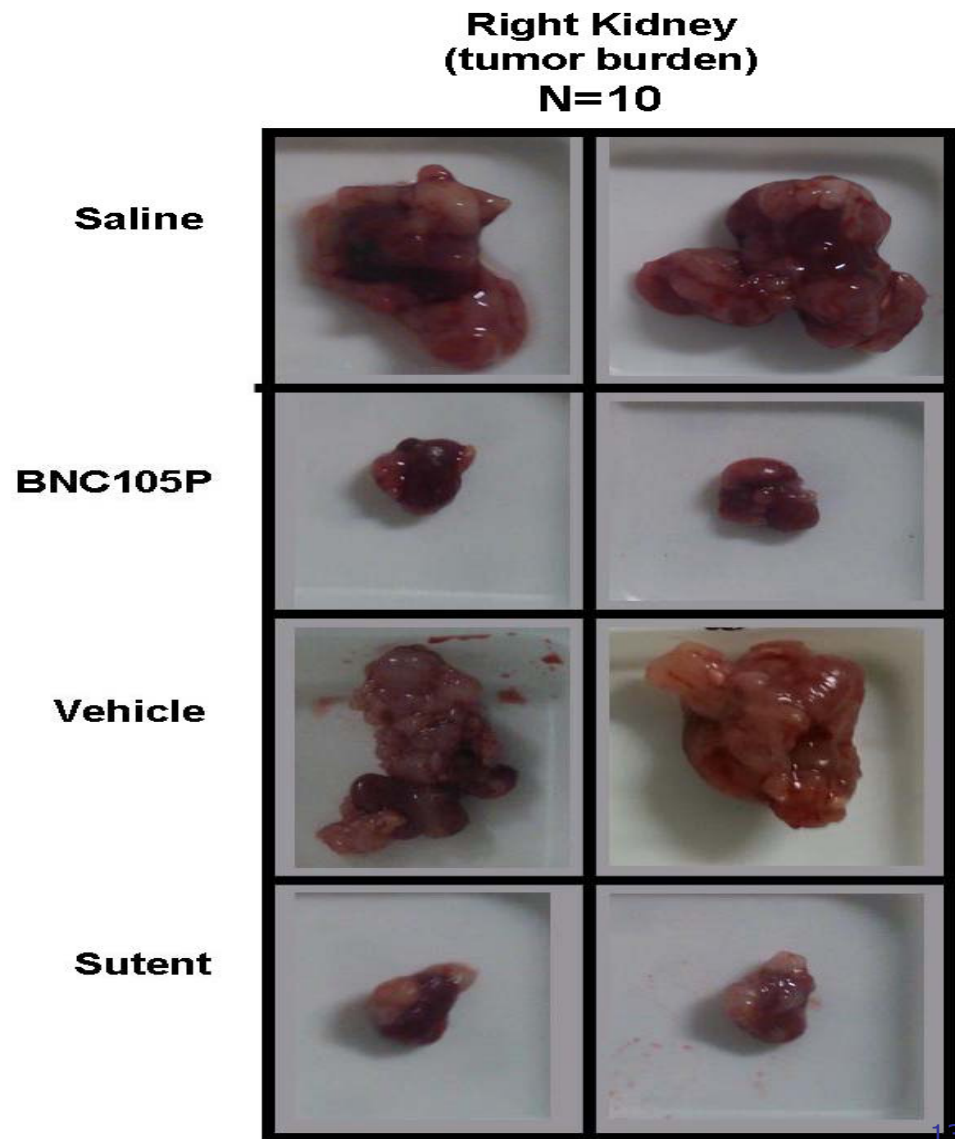
BNC105 cancer clinical trials forged ahead reaching key milestones

Clinical program expanded

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
- Over 100,000 people die of renal cancer in the world each year; is 7th most common cancer



BNC105 Mesothelioma trial yielded valuable data for licensing package



- Formal interim analysis of first 24 patients
 - Clinical benefit $\geq 25\%$
 - One patient with objective response showed 57% reduction in tumour measurements, remains on BNC105 treatment
 - At least 5 patients with stable disease as measured by mRECIST
 - Ongoing evaluation of patients in trial
 - No further enrolment beyond August 2011
- Current Status
 - 30 patients treated – an additional 6 patients in trial
 - Clinical benefit 43.3%
 - One patient with objective response showed 57% reduction in tumour measurements, remains on BNC105 treatment
 - 12 patients with stable disease as measured by mRECIST

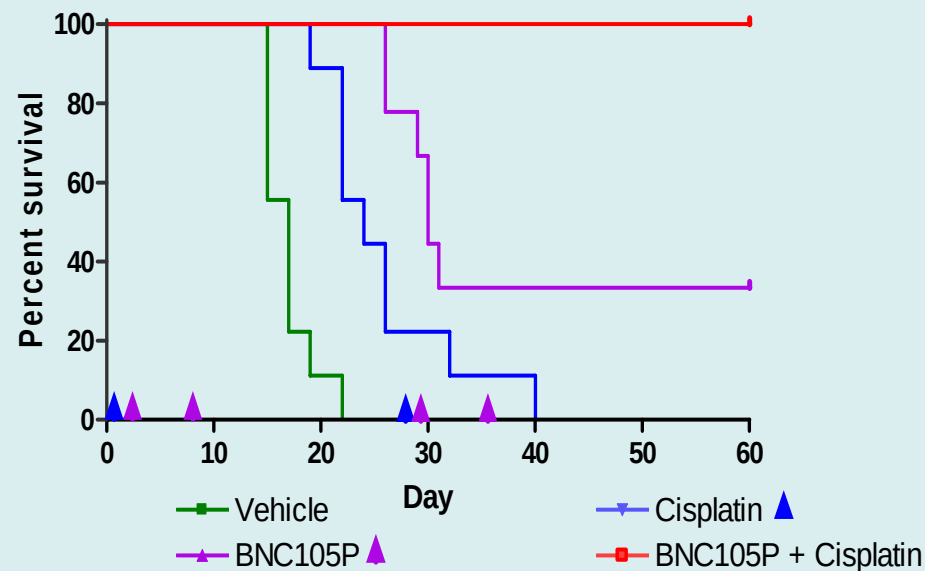
BNC105 development expands to Ovarian cancer



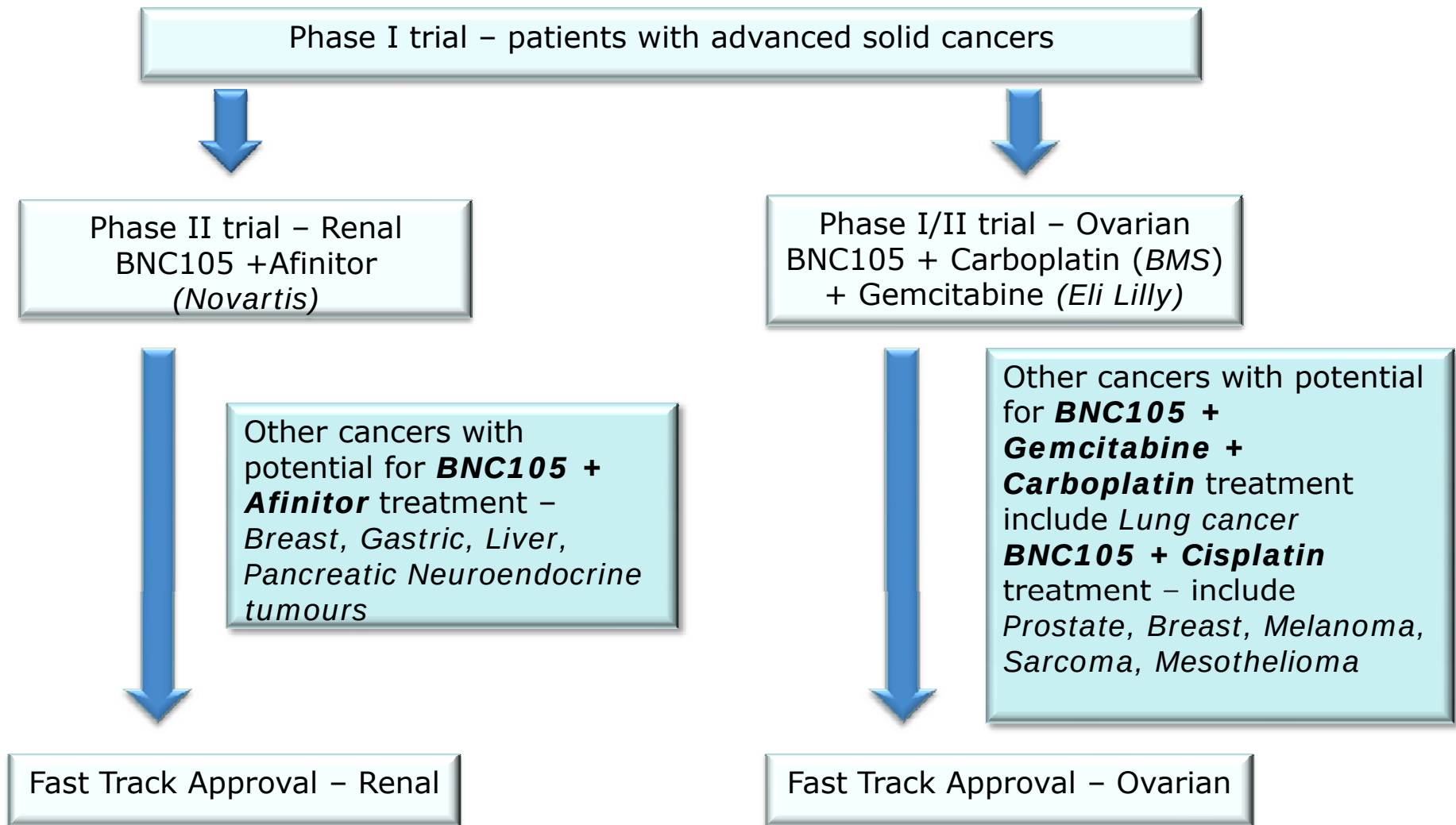
Ovarian cancer is 5th leading cause of cancer-related death among women

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 preclinical data in ovarian cancer:
 - BNC105 **50,000x** more potent in killing cisplatin resistant ovarian tumours
 - Treatment of cancer-bearing animals with BNC105 + cisplatin results in 100% survival



BNC105: Multiple opportunities and fast track to market



BNC105 targets the treatment of all solid tumour types



- All solid tumour types – Avastin (Genentech/Roche) global sales of >US\$7.98b in 2010
- Renal – Sutent (Pfizer) and Nexavar (Bayer/Onyx) combined global sales of US\$2b in 2010
- Ovarian – Drugs to treat ovarian cancer had sales of US\$3.6b in 2010

Broad BNC105 patent estate covering:

- *Composition of matter*
- *Use in the treatment of cancer and ophthalmology applications*
- *Methods of manufacture*

Bionomics owns all BNC105 IP



Partnerships: Capitalising on the deep resources of big Pharma

Pipeline: Building future value

Merck Serono collaboration



Kv1.3 blockers for the treatment of Multiple Sclerosis

Multiple Sclerosis (MS) autoimmune disease affects nerve function that leads to numbness, difficulty in co-ordination, memory loss & ultimately paralysis

- Annual revenue of MS drugs worldwide >US\$12b in 2010; significant market growth projected to 2025
- BNO partnered with Merck Serono, a large pharmaceutical company & pioneer of new treatments for MS including Rebif® (~US\$2.24b sales in 2010)
- Revenue to BNO per successful compound: up to US\$47m in milestone payments + royalties
- Potential to lead to a patient friendly MS drug which is:
 - Highly effective with fewer side effects
 - Orally active (not injected)
- Number of compounds being tested, fully funded by Merck Serono
- Significant resources allocated by Merck Serono to the collaboration



Alpha 7: Potential new drug candidate



- The Alpha 7 nicotinic acetylcholine receptor plays a key role in memory
- Alpha 7 modulators have potential application in Alzheimer's disease, schizophrenia, ADHD & mood disorders such anxiety & depression
 - Alzheimer's market ≈US\$5b by 2012
 - Schizophrenia market ≈US\$4.3b in 2011
- Bionomics' patent applications signal good progress towards a new drug candidate

2011 was transformational!

- ✓ Solid advancement with our three leading programs
- ✓ Strengthened balance sheet
- ✓ Exciting prospects add depth to our pipeline

Outlook – 2012 will build on the successes of 2011



- BNC210:
 - Presentation of clinical trial data at a major US conference 4Q, CY2012
 - International patent approvals 1Q, CY2012
 - Licensing of BNC210 for continued clinical development
- BNC105:
 - ✓ Open 22 sites in renal cancer trial 4Q CY2011
 - Presentation of new data to international conferences 1Q & 2Q CY2012
 - Initiation of ovarian cancer trial 1H CY2012
 - Completion of enrolment in renal cancer trial 4Q CY2012
- Continued progress in Merck Serono collaboration towards milestone triggers
- Alzheimer's drug candidate selected for clinical trials from "Alpha 7" project

Your Company



- Impressive portfolio of drug candidates
- Productive platform technologies
- Strategic partnering program
- Solid financial position



*Successful, fully integrated, international
drug discovery and development company
that is Bionomics*

Thank you for your support in 2011

