



# **Asterand**<sup>®</sup>

Partners in Human Tissue Research

**Proactive Investor Forum**

*Martyn Coombs, CEO*

*Amanda Woodroffe, UK General Manager*

*3<sup>rd</sup> March 2011*

## Forward-looking statement

This Announcement contains forward-looking statements concerning the Company's business, plans, objectives, financial condition, results of operations and expected performance. All statements other than statements of historical fact are, or may be deemed to be, forward-looking statements. Forward-looking statements are statements of future expectations that are based on management's current expectations and assumptions and involve known and unknown risks and uncertainties that could cause actual results, performance or events to differ materially from those expressed or implied in these statements. Readers should not place undue reliance on forward-looking statements.

Neither the Company nor any of its subsidiaries undertake any obligation to publicly update or revise any forward-looking statement as a result of new information, future events or other information. In light of these risks, results could differ materially from those stated, implied or inferred from the forward-looking statements contained in this Announcement. Furthermore, historical results may not be indicative of the Company's future performance.

# Agenda

- **Our premise & our company**
- **Investment proposition**
  - Level of risk
  - Position & market
  - Clear growth strategy
  - Validation
  - Good value for money

## Asterand – The Premise of Our Company

- Global pharmaceutical companies, engaged in R & D & Dx, are striving to develop new therapies against human disease
- **92% of compounds in clinical trials fail, even after many years of preclinical testing in animal models<sup>1</sup>** and responses in animals are only a partial guide to responses in humans<sup>2</sup>



- We believe that **methods using *human-based solutions*** (human tissue, human primary cells...) **can better predict** downstream success / failure at an early stage

<sup>1</sup> Challenge and Opportunity on the Critical Path to New Medicinal Products (2004), FDA

<sup>2</sup> Approaches to Reducing Phase II Attrition, Insight Pharma Reports (May 2009)

## Asterand – our Company

- Human tissue research heritage
  - 2006 merger : Asterand Inc + Pharmagene plc → Asterand plc
  - 2010 acquisition : Asterand plc + BioSeek LLC
- Global operation with offices and laboratories in the US and the UK
  - 100 employees.
  - Scientists with years of experience in human tissue based research
  - Tissue products business in Michigan
  - Services businesses in UK and now in South San Francisco
  - Substantial network of active tissue supply sites (e.g. hospitals) → now have over 100
  - Extensive sales network covering US, Europe and Japan
- On LSE (main list)



## (Retail) Investors – Typical Selection Criteria for Stocks

**1. Avoid risk.**

**At the same time, seek opportunities for step change in growth.**



**2. Growth niche. Good position within niche. Barriers to entry.**



**3. Company strategy – compelling.**



**4. Validation:**

- **Management team track record in execution.**
- **Who else is in – customers.**



**5. Is the stock good value ?**



# Asterand From An Investor Perspective

- **Not a drug discovery company** (*i.e. somewhat de-risked business model*)



## **SOLUTIONS**

**fee for service / products / consultancy  
platform / disruptive change company**

*(in future, when platform embedded, add success-based milestone payments)*



- **Not really (just) a life science tools company**





10 IDEAS THAT ARE CHANGING THE WORLD

TIME MAGAZINE  
MARCH 23rd 2009 ISSUE



**Safe Deposits**  
 Inside Huntsman Cancer Institute's vaults:  
 1 Freezers full of tissue  
 2 A cryotube of blood from a cancer patient 3,7  
 Pancreatic tumors on ice  
 4 Liquid nitrogen storage  
 5 Tissues embedded in paraffin 6 A -140°C long-term freezer

## #8 Biobanks

BY ALICE PARK

NOW THAT MAJOR BANKS IN THE U.S. ARE getting by on a government bailout, the idea of creating yet another repository to safeguard your most valuable assets might seem downright ludicrous. And even irresponsible. But that's exactly what some federal officials are hoping to do.

Relax—it's not your money they're after. It's your blood. Folks at the National Cancer Institute (NCI) are heading up an effort to establish the U.S.'s first national biobank—a safe house for tissue samples, tumor cells, DNA and, yes, even blood—that would be used for research into new treatments for diseases.

Think of it as an organic bank account. You put your biomaterial in and earn medical interest in the form of knowledge and therapies that grow out of that deposit—no monetary reward, just the potential that you might benefit from the accumulated data at some later date. (Sorry, no shiny new toaster to inspire you to open up such an account either—just an appeal to the greater medical



good.) Britain, Canada, Norway and Sweden have already begun building up their national biobanks. And the residents of Iceland, though the country is bankrupt, still have their biological assets tucked safely away; more than 60% of adults in the island nation have donated DNA to deCODE Genetics, the company that runs the bank. The U.S. effort currently lies in the NCI's Office of Biorepositories and Biospecimen Research (OBBR). By fall, the group hopes to have mapped out a plan for a national biobank; the recent stimulus showered on the government by the Obama Administration might even accelerate that timetable.

Why the NCI? Cancer, it turns out, is a smart place to start with a biobank. Already, dozens of genes have been linked to cancers—BRCA 1 and 2, which are behind 5% to 10% of breast cancers—and gene proteins like prostate-specific antigen, which signals a potentially abnormally growing prostate gland. Many cancer hospitals have been collecting

and storing tissue samples for decades. Imagine the power of those thousands of samples writ 100,000 or even millions of times larger, over not just cancer but any disease, ranging from brain disorders like Alzheimer's to metabolic conditions like diabetes. With enough tissue samples from both affected and unaffected people, researchers can pick out gene profiles that haunt the DNA of those who get sick, then start to screen and treat these individuals and others like them more aggressively. "Biobanks will transform the way we see disease developing," says Dr. Carolyn Compton, director of the OBBR.

It will certainly change what you leave behind each time you visit the doctor. The key to a powerful national biobank is high-quality specimens from as wide a swath of the country's population as possible. And both doctors and patients are beginning to warm to the idea of collecting DNA and tissue samples as a part of routine examinations.

The challenge, of course, is to maintain the privacy of account holders and ensure that access is limited to medical personnel and those who have the individual's consent. Coding each specimen and setting up layers of password-protected data sets might be one way to accomplish this.

Sounds easy, but will it work? That all depends on how comfortable people can get with sharing their DNA. "Having all of your DNA out there where organizations or governmental institutions have access to it makes people nervous," says Dr. Randall Burt of Huntsman Cancer Institute in Utah. The medical incentives are certainly great—scientists are convinced that only by mining the riches of the human genome will we uncover the next generation of treatments for disease. And maybe those toasters couldn't hurt either.

# Growth Niche / Good Position Within Niche / Barriers to Entry

- **Market size:** ~\$700m, 20-30% growth
- **Customers:** pharma/bio (majority), diagnostics, academia and government
- **Competitors:** Market currently very fragmented (~30% via commercial biobanks, ~70% academic)
- **Market trend:** towards better quality
  - Customer needs more exacting, issues with current methods
- **Quality is Asterand's strength**
  - Standardised protocols, RNA quality, tight QC/QA, pathology confirmation of diagnosis
  - Comprehensive clinical information
  - Leadership in ethics, consent, regulatory approval

*“The biobanking market is expected to see significant growth from 2010 to 2025, due primarily to the realisation of advantages of biospecimens compared with animal models in pre-clinical pharma research.”*



*“...we conclude that the biobanking market will thrive during the forecast period, from 2010 to 2025, biobanks will become one of the most important resources for advancing medical research and development of drugs and diagnostic tests.”*

# PhaseZERO : Cardiovascular safety

## Drug-induced valvulopathy

serious side-effect of several medications

e.g. fenfluramine – fibrosis due to activation of 5HT<sub>2B</sub> receptors

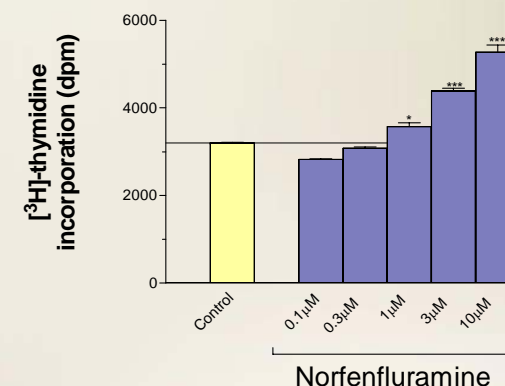
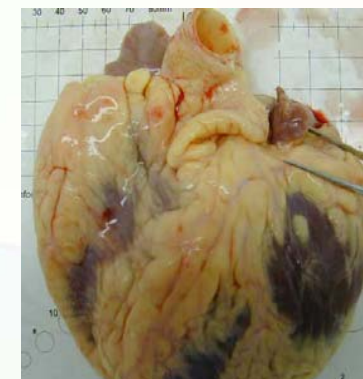
Screening of compounds for 5HT<sub>2B</sub> receptor activity advocated<sup>1</sup>

## Asterand solution

- New assay to measure 5HT<sub>2B</sub> induced proliferation of human VICs
- No other commercial provider
- Adopted already by several pharma companies
- Barrier to entry
  - Excellent access to fresh, human mitral and aortic valves
  - Experimental 'know-how' for cell isolation and assay

## Assay can distinguish between

- ✓ full 5HT<sub>2B</sub> agonists associated with valvulopathy
- ✓ partial 5HT<sub>2B</sub> agonists not associated with valvulopathy



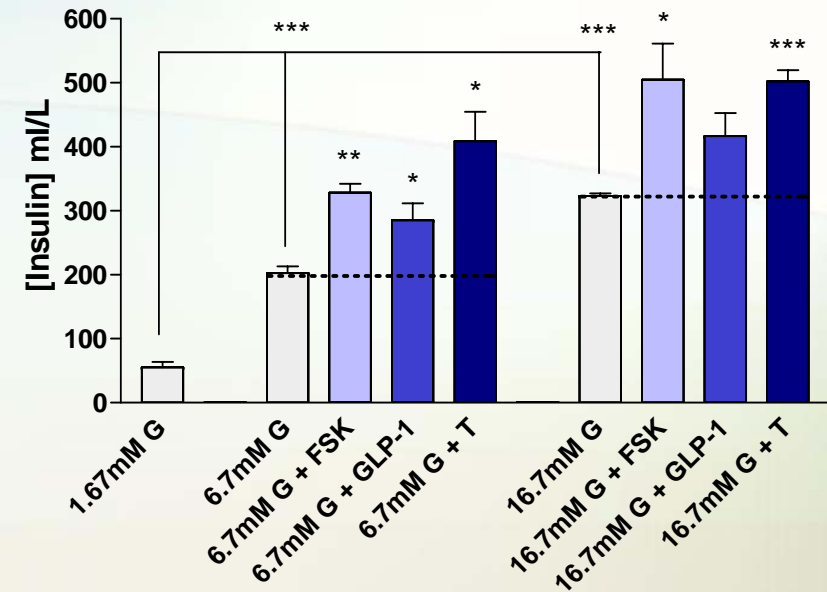
# PhaseZERO : Metabolic disease

Developed Human Islet OrganDots for supporting diabetes research

Proprietary approach - exclusive to Asterand

'Smart' GSIS assays – advantages over traditional static GSIS assays

- ✓ Improved responsiveness to glucose
- ✓ Improved responsiveness to standard secretagogues
- ✓ Batch testing in single donor
- ✓ Robust
- ✓ Reproducible
- ✓ Improved throughput and turnaround
- ✓ Long-term culture allows assessment of drug safety



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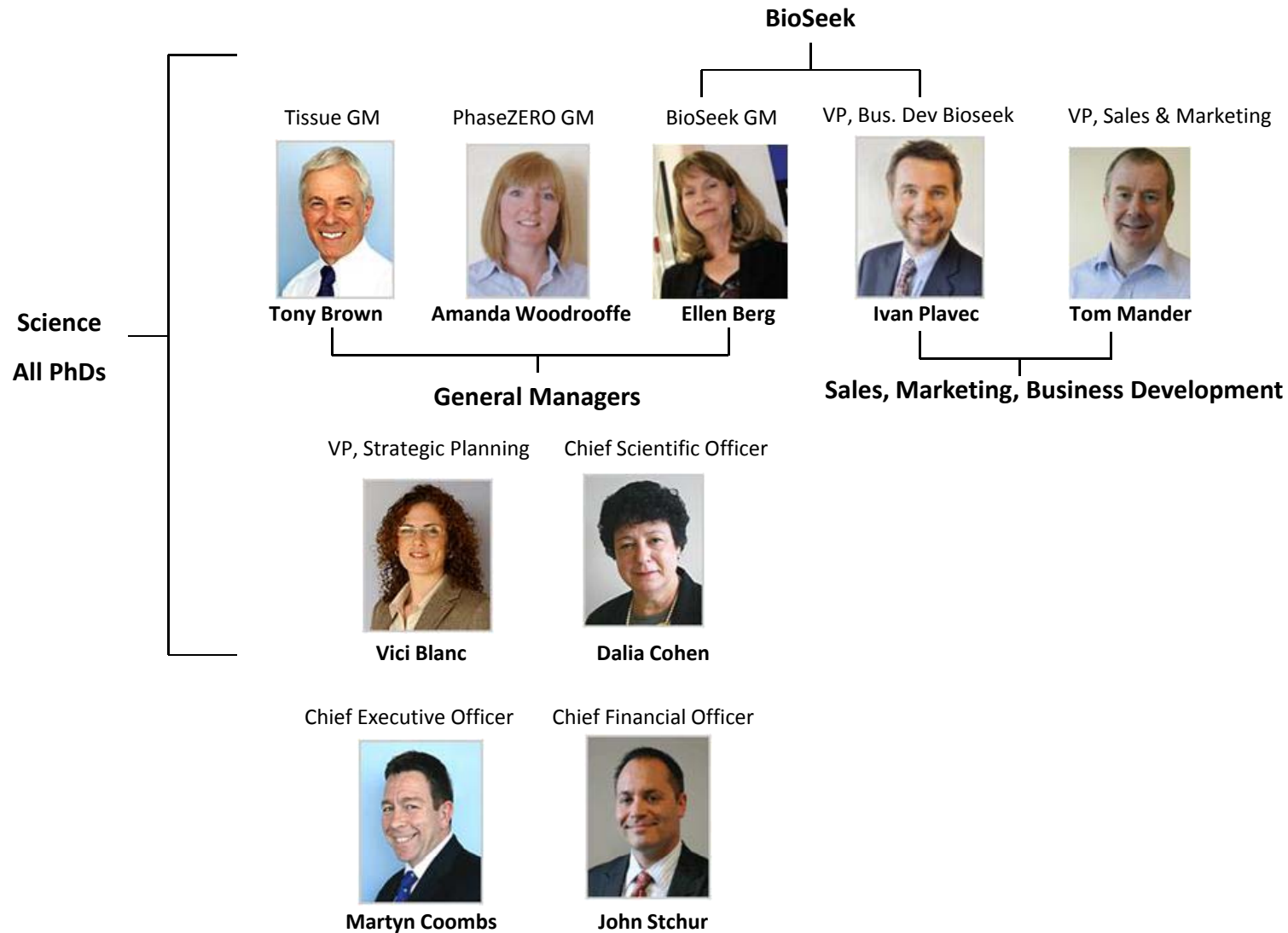
# Asterand Vision & Strategy

- To be a leader in the human-based solutions field
- The “Go To Company” for Pharma. The One Stop Shop. Embedded platform.
- Invest further in quality and science and in growing the total market
- Grow organically, and via prudent roll-up / buy and build

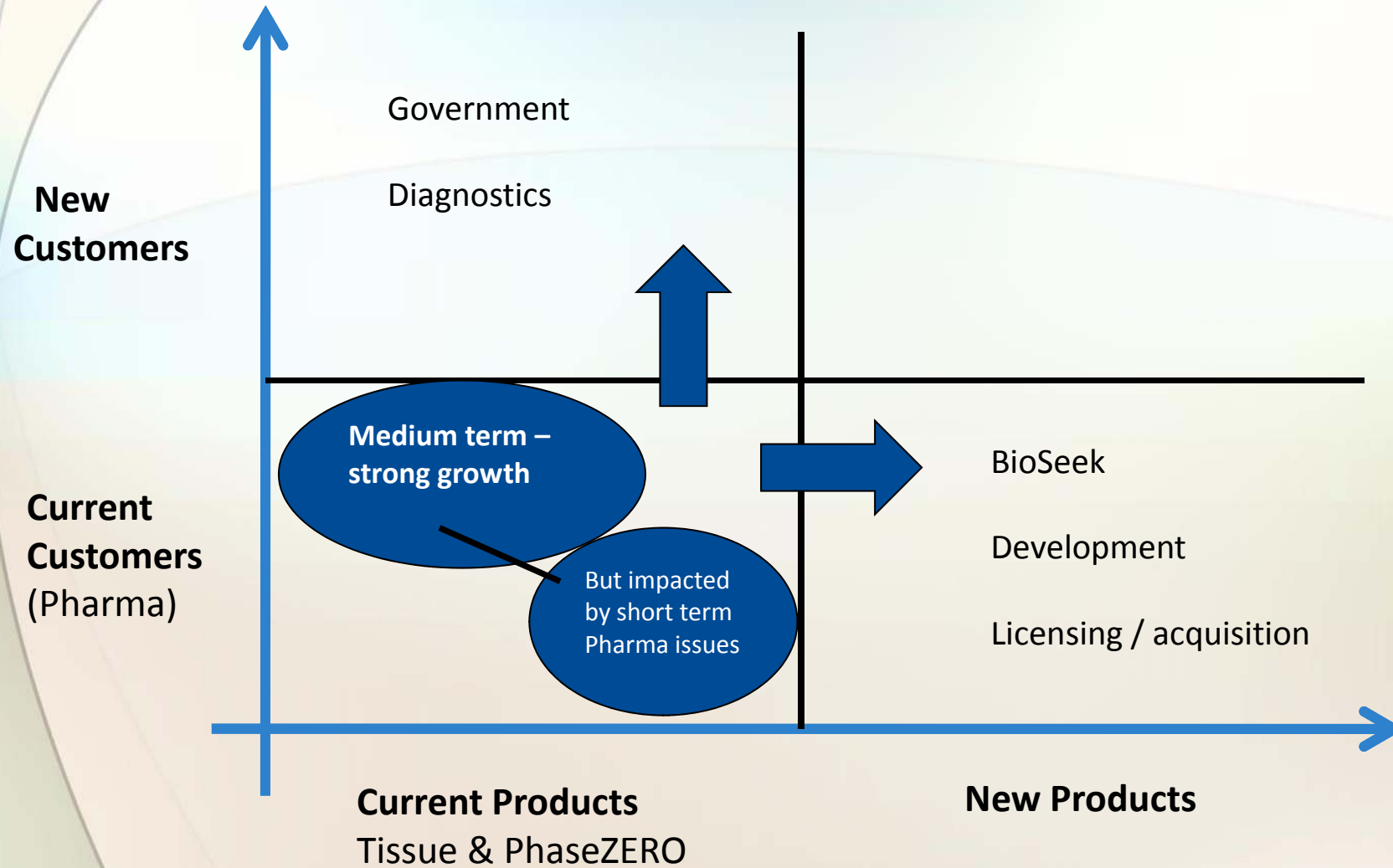
**...Growing trend away from animal models and toward human models**  
**...Asterand is in the right commercial space at the right time**



# Management Team



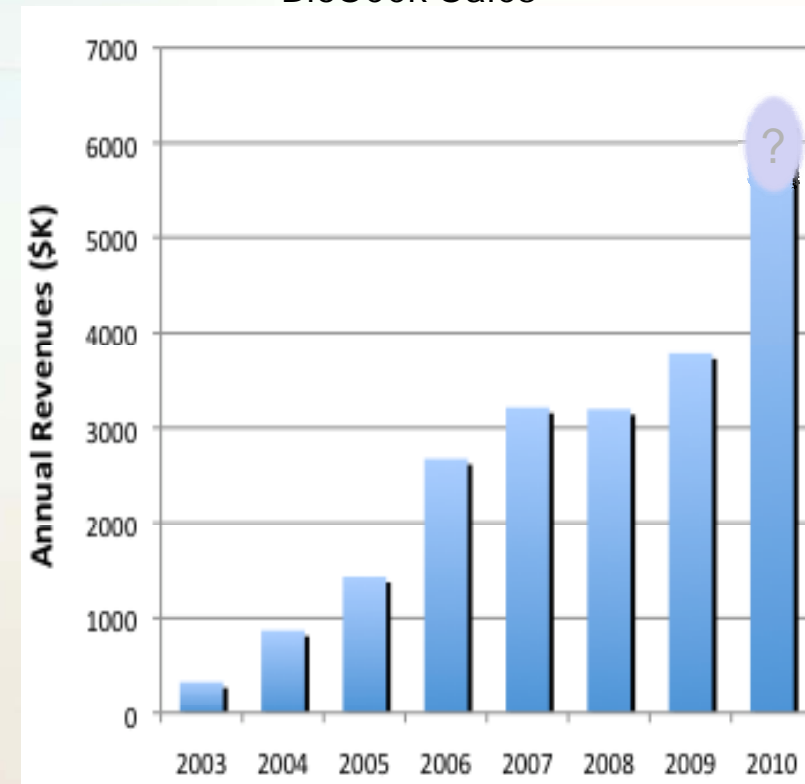
# Growth Plan



## BioSeek Acquisition – integrated well

- Human primary cell based sophisticated predictive technology
- Inflammation based
- Complementary to Asterand.
- Very good product that people want + Barriers to entry
- High proportion of costs are fixed – can leverage and scalable
- Only scratched the surface of sales opportunity...also possible to get big deals, with upside

BioSeek Sales



# Blue-Chip Customer Base

## 1. US Government (NCI, EPA)

Organization	Base	Total contract value
Asterand	\$ 5,360,978	\$ 24,302,304
International Genomics Consortium	\$ 5,490,240	\$ 21,360,880
Washington University	\$ 2,725,275	\$ 13,626,375
Pittsburgh University	\$ 3,001,400	\$ 10,961,777
Analytical Biological Services	\$ 2,312,715	\$ 9,265,109
Cleveland Clinic Foundation	\$ 1,627,009	\$ 5,717,366
Case Western University	\$ 715,438	\$ 2,502,392

Contract with the Environmental Protection Agency (EPA)



TCGA Contract, signed 24<sup>th</sup> Sept 2010

## 2. The top 30 Big Pharma

Announced agreements in 2010 with BMS / Ono / Eisai / Amylin / Cellzome

## 3. Diagnostic Companies (2 out of our top 5 tissue customers in 2010)



## Financial Performance

At end of Oct 2010:

- Cash \$2.9m
- No debt (*will have term loan of \$3m for BioSeek acquisition*).
- 2010 Street Estimates – see Analyst Reports

***2010 results due out on 31<sup>st</sup> March***

Growth in 2011 will be driven by:

- BioSeek growth: \$5m already booked for 2011
- \$3.3m new TCGA (NCI) contract
- Base tissue and services business

Our business is very scalable – high proportion of costs are fixed.

Margins (GM approx 55%) will increase.

# Asterand – Proposition for Investors

- 1. Derisked.**  
**At the same time, opportunities for step change in growth.**
- 2. Growth niche. Good position within niche. Barriers to entry.**
- 3. Company strategy – compelling.**
- 4. Validation:**
  - **Management team track record in execution.**
  - **Blue chip customer base , expanding.**
- 5. The stock is good value.**