



Asterand[®]

Partners in Human Tissue Research

Growth and Profitability

Martyn Coombs, CEO

John Stchur, CFO

Piper Jaffray Conference, June 2009



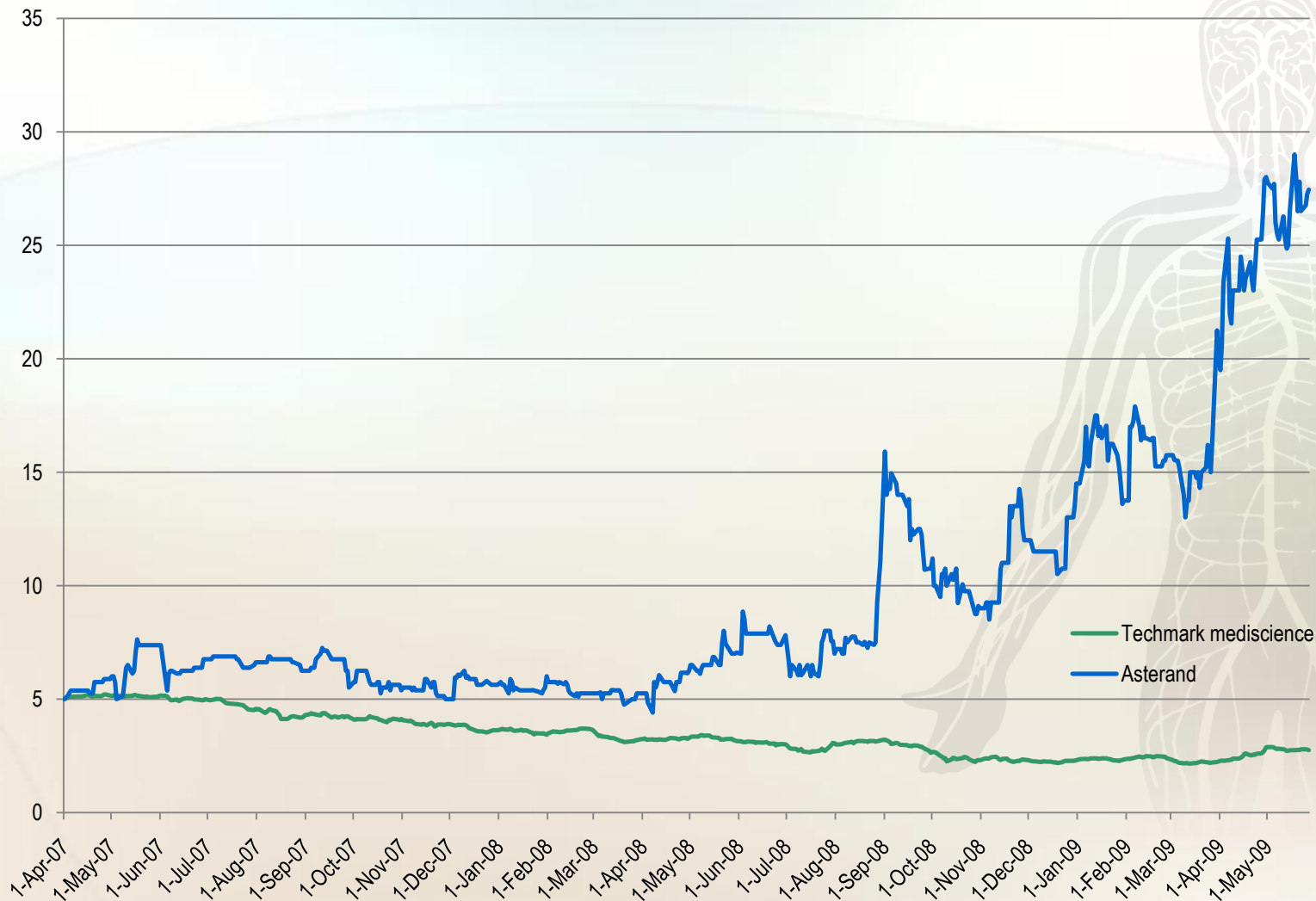
Disclaimer

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.

Top Performing Stock on the LSE in 2008, 70% further YTD in 2009

Asterand Share Price



What we Do: Our Target Market

- Pharmaceutical companies increasingly use well characterised human tissue (with associated anonymised clinical information) to develop new drug candidates.
 - Which genes or proteins are the cause of disease?
 - Can the genes or proteins be fixed with a drug?
 - Does my drug cause a response in the targeted tissue?
 - Will my drug cause a response in a non-targeted tissue and lead to a side effect?
- This is a piece of human tissue; this example contains prostate cancer.
- Following surgery, excess removed tissue (e.g. cancer tissue) is incinerated. We, with donor consent, step in before incineration, and fix/freeze the tissue.
- Pharmaceutical companies' needs are specific and exact, we marry up our service to their need.



Our Company and Focus

- Formed through merger of Asterand, Inc and Pharmagene plc in January 2006. On LSE (official list): ATD.
- Offices and Laboratories in Royston, UK and in Detroit, US.
 - 90 employees. Scientists with years of experience in tissue based research.
 - Network of 40 active source sites (hospitals).
 - Sales network covering US, Europe and Japan.
- Our customers are global Pharmaceutical companies (top 30), engaged in drug discovery and development.
- The use of Human Tissue is an important and growing approach in target discovery and in validating new compounds.
We focus on Human Tissue, and help our customers move from discovery to clinical more rapidly and more safely.
- We are a solutions company (products, services, consultancy).
...We are **not** a drug discovery company (i.e. de-risked business model).

Niche Market of \$700m growing at 20%-30% pa (source: Back Bay Strategies)

Market Drivers:

- Responses in animals are only a partial guide to responses in humans
→ Increasing appreciation of human tissue
- Biomarkers; personalised medicine
- Pharmaceutical companies increasing focus on productivity (“fail early, fail cheap” / increase outsourcing).
- The market could grow more quickly with more effective supply.

The US National Cancer Institute has identified the lack of ***appropriately collected and annotated human tissue*** as one of the major barriers to the development of new cancer therapies.

“Human biological samples (including solid tissue, biofluids and their derivatives) play a vital role in our research, helping us to build a deeper understanding of human disease processes and their underlying mechanisms.” **AstraZeneca**

MARCH 23, 2009

Annual Special Issue

TIME



10 IDEAS CHANGING THE WORLD RIGHT NOW

The global economy is being remade before our eyes. Here's what's on the horizon

- WHY YOUR JOB IS YOUR MOST VALUABLE ASSET
- REPURPOSING THE SUBURBS
- SURVIVAL-STORE SHOPPING
- BIOBANKS: SAVING YOUR PARTS
- NEED LAND? RENT A COUNTRY
- THE NEW CALVINISM
- ECOLOGICAL INTELLIGENCE
- AMORTALITY: FOREVER YOUNG
- AFRICA: OPEN FOR BUSINESS
- REINVENTING THE HIGHWAY



www.time.com

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
4 Pancreatic tumors on ice
4 Liquid nitrogen storage
5 Tissues embedded in paraffin 6 A -140°C long-term freezer

and storing tissue samples for decades. Imagine the power of those thousands of samples: write 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

#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

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.

Competition / Criteria for Success / Barriers to Entry

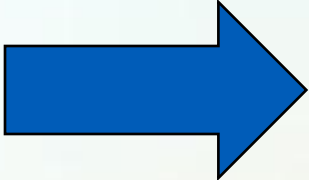
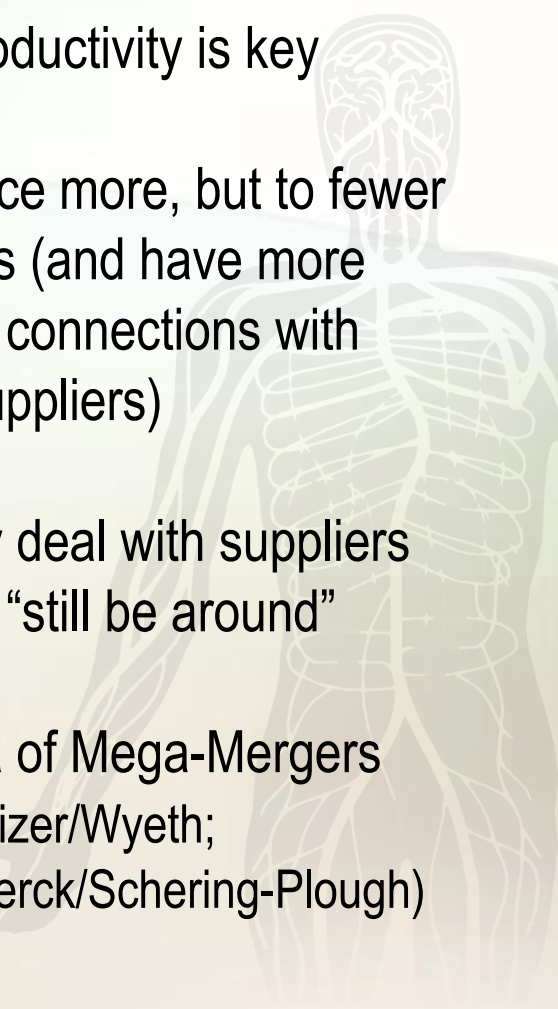
- Competition: Pharmaceutical companies themselves / with academia (70% of market).
- Market is very fragmented...Asterand is largest, most well recognised player.
- Criteria for Success:
 - Leadership in ethical and consent compliance and regulatory approval – controlled over network
 - A wide network of collaborating hospitals
 - An extensive biobank, covering a range of ethnic backgrounds and staging of disease
 - Tightly controlled QC procedures
 - Comprehensive clinical information
 - Scientists versed in the use of human tissue

It is not easy and would take considerable elapsed time to replicate the above requirements.

- Customer requirements becoming more specific, exacting → more specialised expertise required.
- Asterand has the core capabilities to meet these changing customer requirements.

... Exciting growth story. We aim to become the clear global market leader in this niche.

Big Pharma Mega Trends

- Spending twice as much on R&D, and getting half the number of approvals (change over 5 years)
 - Major drugs going off patent
- 
- R&D Productivity is key
 - Outsource more, but to fewer suppliers (and have more intimate connections with those suppliers)
 - Will only deal with suppliers who will “still be around”
 - New era of Mega-Mergers (E.g. Pfizer/Wyeth; Merck/Schering-Plough)
- 

New Management team in 2007 → A successful turnaround

- Become more lean → more accountable, disciplined, predictable, scalable.
Restructured at Royston in late 2007; savings £700k pa
Improved logistics of the tissue supply operation at Detroit via lean six sigma.
- Closer Customer intimacy (consultative selling).
Replaced 6 of our 8 sales reps (now have a full set of experienced, high performing sales reps).
New collaboration in Japan (Eolas). Integrated US, Europe and Japan teams, improved cross-selling
Strengthened the participation of scientists in the selling process (“*white coat selling*”).
- Sought to release value from IP, Consultancy opportunities.
- Strengthened our management team.
New CEO, CFO, US General Manager, VP Sales and Marketing
New Board

...We previously announced good progress following these actions

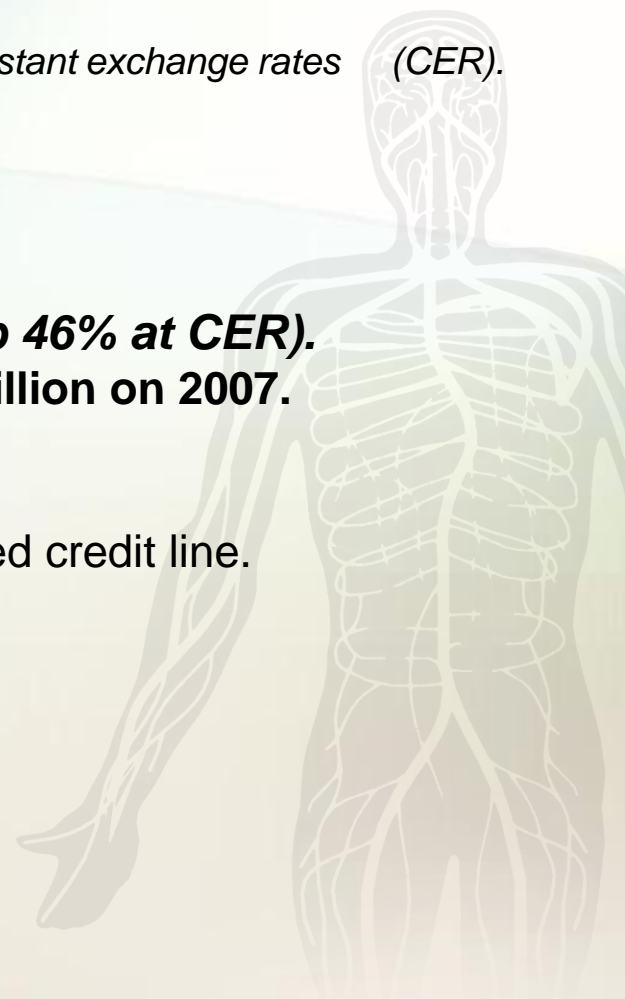
Achievements of the management team in 2008

• Allergan deal	Out-licensed select pre-clinical compounds (for eye diseases). Received upfront payment of \$6.25m (£3.4m).
• AFIP contract	Provided assessment , valuation and recommendations for the Armed Forces Institute of Pathology repository.
• Great Place to Work.	Named one of the Top 20 Best Places to Work by The Scientist journal from a survey of over 200 healthcare / life sciences companies in USA/Europe.

We were able to announce improving performance in 2008

Strong Financial Results in 2008

- Revenue doubled to £15.2 million. *(up 82% at constant exchange rates (CER)).*
- EBITDA profit of £3.8 million, up £5 million on 2007.
- **Excluding Allergan deal:**
Core business revenue up 60% to £11.8 million (up 46% at CER).
Core business EBITDA £1.7 million profit, up £3.2 million on 2007.
First profitable year.
- Cash resources £6.9 million. No long-term debt. Unused credit line.



Strategy Going Forward

Focus on Human Tissue Solutions (products, services, consultancy)
Aim to become the clear leading global company

Customer Intimacy	Effective Logistics and Innovative new offerings	Stronger links with collaborating hospitals
<ul style="list-style-type: none"> ▪ 11 global agreements (7 added in the last 2 years). Aim to strengthen / add to. ▪ Add at least 2 sales reps in 2009. 	<ul style="list-style-type: none"> ▪ Roll-out of Lean six sigma to improve effectiveness and productivity ▪ New services offerings from Royston 	<ul style="list-style-type: none"> ▪ Build out network ▪ Reduce reliance on specific countries

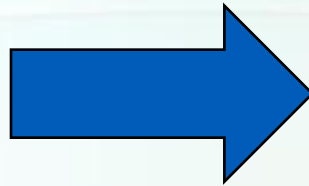
Additional areas of focus:
Build on AFIP success → consultancy service
Pharmagene's frozen IP portfolio → seek to out-license

Therapeutics pipeline



* Preclinical efficacy data for inflammation, glaucoma and myometrial

Global Financial Meltdown



- No equity or loan financing (unless cast iron certain).
- Debt based models now very difficult.
- Uncertainty of demand



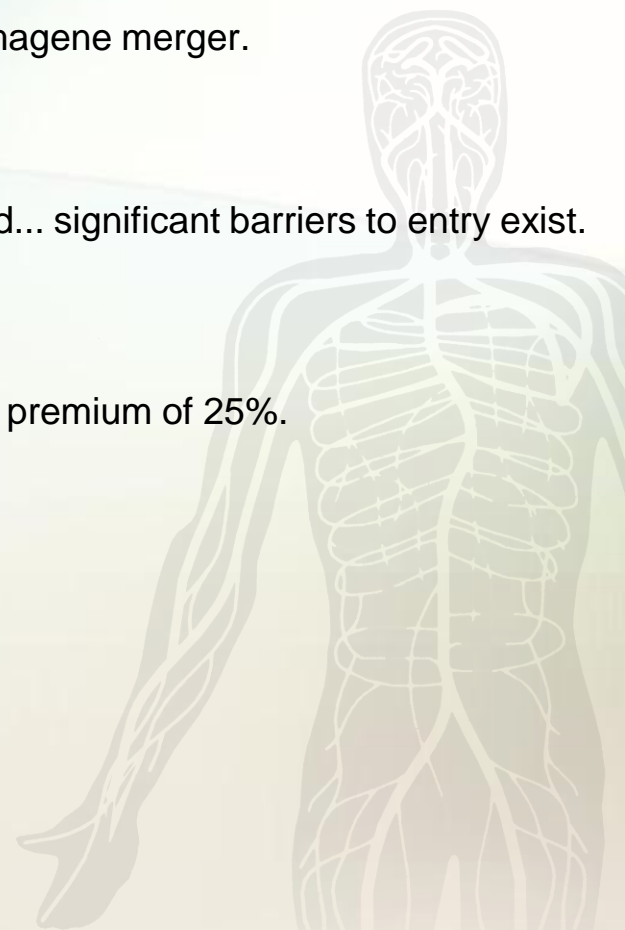
Many life science companies are valued at a small fraction of that of 9 months ago

An opportunity for Asterand

Using Human Tissue as our foundation, we are now prudently assessing our options.

Our Position

- 1. Strengthened Management Team (since 2007) and Board (2008)**
Track record in turnaround, E.g. making a success of Asterand / Pharmagene merger.
- 2. Attractive Niche Market and Position**
Market growing...serving quality customers...Asterand is well positioned... significant barriers to entry exist.
- 3. Good relationship with Shareholders**
E.g. Nov 08: completed a stock placing with Chrysalis, at a share price premium of 25%.
- 4. Strong Results..**
Strong growth in core business (46%), turnaround to profitability.
Cash-flow generative / £7m cash, £2m line of credit – no debt.
- 5. Clear Strategy**
Profitability and growth organically, and via a "buy and build" strategy.
On top of core business, IP portfolio gives opportunity for upside.



Exciting growth story
Asterand has a real opportunity to build a meaningful company

Appendices



Human Tissue Products and Services

Tissue Products

XpressBANK™

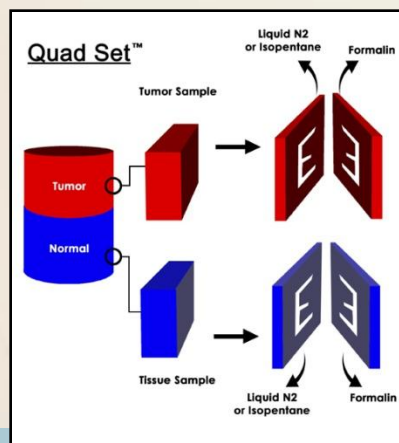
Access to over 200,000 samples and associated clinical and pathology data

- **Fixed and frozen tissue formats**
- **Diseased (tumor) and normal matched pairs**
- **Tissue derivatives – RNA, DNA, primary cells, cell lines**

ProCURE™

Customized access to Asterand's procurement network

- **Client defined, disease specific study protocols**



PhaseZERO Service

Target Validation

Identify where targets expressed and localised in different tissues / diseases

- **Gene expression** – PCR generated profiles (**Xpressway™**, **CustomMapping™**, **TargetEvaluator™**)
- **Gene & protein localisation** – Histological assays

Compound Profiling

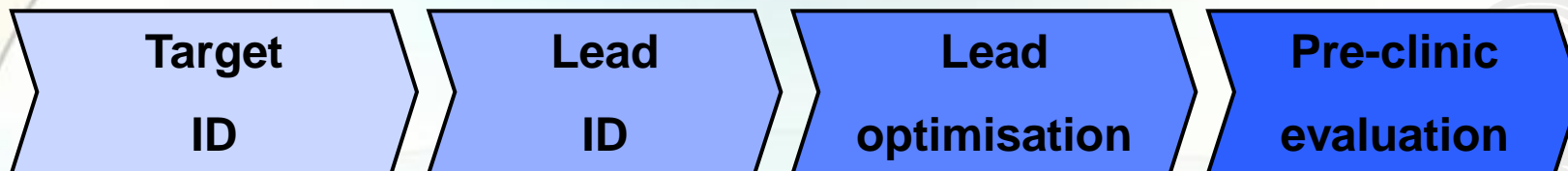
Measure binding and function of compounds (desired and undesired) at the appropriate target

- **Cellular Pharmacology** – Biochemical responses in isolated cells or fractions

ADMET

- **Drug metabolism, absorption, interactions**
- **In vitro toxicity**

Asterand's Role in Drug Development Process



Tissue supply

Supply of frozen tissue sample for genomic & proteomic analysis

TargetEvaluator

Proprietary gene expression database and custom gene profiling

PhaseZero® - imaging

Identification & profiling of targets identified in other models in human tissues

PhaseZero® - functional pharmacology

Identification of binding to and activation of target

PhaseZero® - imaging

Identify whether the drug candidate binds to the target tissue

PhaseZero® - functional pharmacology

Identification of binding to and activation of target & activation of off-target receptors

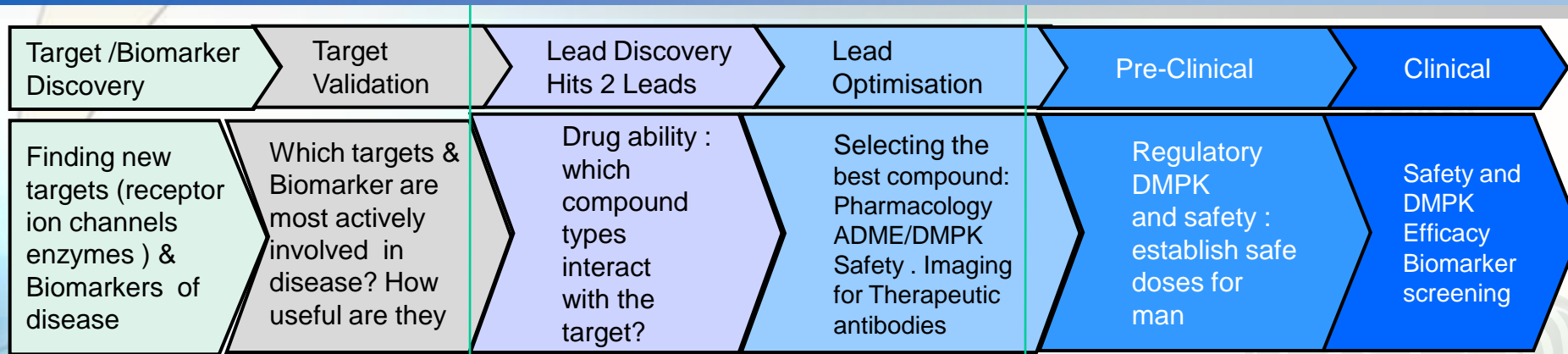
PhaseZero® - biochemical pharmacology

Review of ADME and toxicity in a number of human systems

PhaseZero® - functional pharmacology

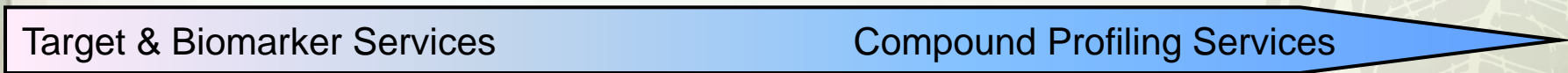
Identification of binding to and activation of target & activation of off-target receptors

Supporting Customers to select Winning Target and Compounds for Human Disease



TARGET SELECTION

CANDIDATE SELECTION



- Gene expression & localisation
- Protein expression & localisation


- Biochemical Pharmacology; cell-based
- Functional Pharmacology; tissue-based
- ADMET

AIM; to facilitate efficient drug target / Biomarker selection by providing support to the following questions

- *Where are the targets expressed in man & what is their function?*
- *Are the targets associated with the disease of interest?*
- *Are the biomarkers of Therapeutic use or patient stratification*

AIM; to facilitate efficient drug candidate selection by providing highly relevant data to support the following questions

- *Which compounds are likely to show efficacy in the clinic?*
- *Which compounds are likely to be safe in man?*
- *How relevant & predictive is animal data?*



Medical Research Informed Consent

1. **Introduction and Purpose:** I am being asked to participate in this donor of research study because my surgical tissue sample, and those from other people, have the potential to provide information to researchers that may help them find new ways to detect, and treat, diseases such as autism in the future. The tissue that I donate must be removed for my surgical treatment and would normally be discarded.
2. **Procedure:** If I take part in this study, I will be asked to donate the tissue that I have removed to assist my clinical condition. Research for a treatment or tests other than that are normally provided for my medical care will be performed. The tissue will be used specifically for research to examine the possibility of individuals' ability to follow a characteristic genetic, heart of about, studies and information concerning such as learning, the brain, etc. The studies will examine how much of these molecules are present in tissue, and not just in order to identify genes important in the development of disease. In addition, some of the tissue may be stored for an indefinite period of time in a tissue repository for future biomedical research purposes. The tissue may be used for research or genetic information or shared with collaborators at outside academic or commercial institutions. The research that may be done includes the examination of RNA, DNA, or proteins of cells. I will not be given the results of any research performed on the tissue because all information regarding it will be kept anonymous. The researchers will use the tissue in a way to know some things about my health before any other research is done. I will be able to see, and, if I choose, want to my doctor, how have I been medically treated, or my condition, what is my family medical history, etc. Medical information about me may be given to researchers with the tissue, but my name and any other identifying information will be removed. The researchers will not know who I am and the information will be kept confidential.
3. **Risks:** This research will have no effect on me, it will have no effect on my care.
4. **Voluntary Participation/Withdrawal:** Taking part in this study is voluntary. I may choose not to take part, or if I decide to take part, I can later change my mind and withdraw from the study. My doctor will not change the level of my health care or other services that I receive. The study is not a requirement, and I can stop my participation in this study without my consent. While taking part in this study, I will be told of any important new findings that may change my willingness to continue to take part. Whether or not I choose to take part in the study, I will not be asked to donate a blood sample for patients with my condition.
5. **Confidentiality:** All information collected about me during the course of this study will be kept confidential to the extent permitted by law. I will be identified in the research report by

Asterand Medical Research Informed Consent
April 2011

DATE TIME OF SIGNATURE (SIGNED) _____

DATE _____

DATE TIME OF SIGNATURE (SIGNED) _____

DATE _____

Asterand Medical Research Informed Consent
April 2011

Compliance

- Licensed under the UK Human Tissue Authority (HTA)
- Compliant with all applicable statutes, regulations, and ordinances governing the collection and transfer of human biological materials
- High ethical standards relative to industry and industry leading clients

Key Terms for Donor Consent

- Donation of 'surplus' surgical tissue not required for diagnosis (normally discarded)
- Anonymous donation with no confidential information disclosed
- Disclosure of commercial use for genetic research and third-party transfer

Quality Control Processing for XpressBANK Samples

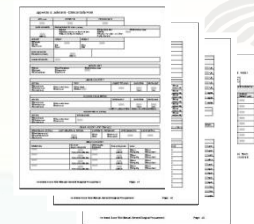
1.) Recovery



2.) Receive Materials



3.) Clinical Data Review



4.) H&E Processing



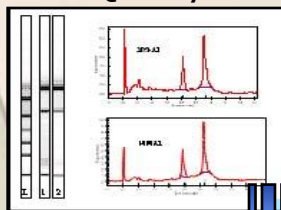
5.) Path QA



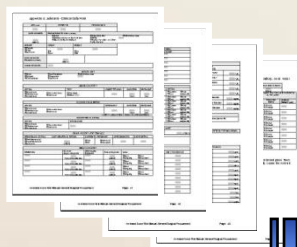
6.) Mirror Inference



7.) RNA Quality Testing



8.) Final Quality Assurance



9.) Biorepository

