



## Mayor launches £4 million MedCity London project

On 8th April 2014 Boris Johnson officially launched MedCity in London, committing £1.2m of funding from the Mayor of London's office. This investment, along with a £2.92m grant from the Higher Education Funding Council for England, will be used to establish London and the south east as a globally significant life science cluster.

London has already seen the development of a successful cluster in the form of 'Tech City' in the east, seen as the UK's answer to Silicon Valley and which provided the stimulus for creating the MedCity project. Tech City is credited with expanding the London tech sector by almost 17%, and accounting for 27% of new jobs in London.

It is hoped that MedCity can have a similar impact on the role of life sciences. The Mayor explained: "Together with Oxford and Cambridge, we form a 'golden triangle' of scientific innovation and we need to channel that intellectual pre-eminence into

a positive impact on our economy... having the whole 'chain' from small spin-offs to massive companies ...can be as important to our economy as the financial services sector is today."

The chairman of MedCity, Eliot Forster, further outlined the strategy: "It will stimulate collaboration across the sector and through this drive economic growth. This is a singular opportunity for this sector to find its rightful place in the world market; to create new companies, new therapies, new investments and to deliver economic and patient benefits."

### WELCOME

The Mayor of London's launch of MedCity is great news for the sector, with life sciences being hailed as a keystone of the future UK economy. LBIC's location places us at the heart of the action, and we are pleased that many of our clients already have international reach as well as funding success: we examine some facts and figures of LBIC clients on page 3. On page 5 we look in more detail at IXICO's progress in the UK and China.

Driving the success of the life science sector will be its key people, and we are delighted to feature Sally Waterman, VP at PolyTherics, who shares her thoughts on the industry, as well as Tony Gordon from Genesis Genetics, who tells us about their new UK facility at LBIC. We also hear from Pauline Maden at Cogent on how their Industrial Placements Service can benefit companies.



Lucy Garnsworthy, Editor

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## Innovation starts with people

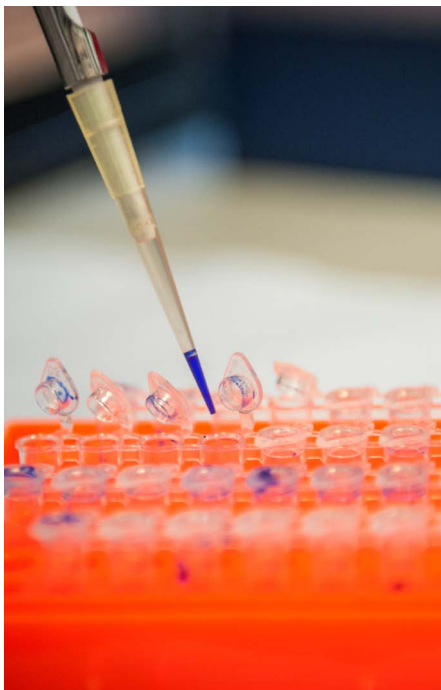
If you are new to industrial placements, an experienced employer host or are looking to try a different approach we'd like to hear from you.



## Oxford PharmaScience receives regulatory approval to start pilot clinical study

Specialty pharmaceutical company Oxford Pharmascience has received approval from the UK Medicines and Healthcare Products Regulatory Agency ('MHRA') and the Ethics Review Committee for its Clinical Trial Application for OXP001 400mg Ibuprofen. OXP001 utilises the company's OXPzero technology to deliver 400mg of ibuprofen and aims to significantly reduce the risk of gastrointestinal (GI) side effects for use in the treatment of conditions requiring the chronic use of NSAIDs. Chronic use of NSAIDs causes well-documented GI side effects and leads to significant morbidity and mortality in many patients.

Marcelo Bravo, Chief Technology Officer, commented: "We are extremely excited about reaching this milestone as this is the first product of its kind featuring the OXPzero technology which has a dual mode of action to significantly reduce gastrointestinal side effects and will offer a new treatment option for those patients taking NSAIDs long term."



## CE certification and new US partnership for HistoIndex



HistoIndex, the Singapore-based company providing innovative imaging products and services for tissue diagnostics, joined LBIC in June 2013. Since then, HistoIndex has had increasing international success.

In late 2013, the company gained CE Certification for its Genesis200 imaging system, allowing HistoIndex to explore and expand on new opportunities in the European market. The company is also looking to the US market, and has recently formed a partnership with ARUP Laboratories, the USA's largest national clinical and anatomic pathology reference laboratory and an enterprise of the University of Utah. HistoIndex's latest global partnership will enable ARUP to offer the company's highly accurate, sensitive and specific pathological tests for fibrosis and cancer to patients in the USA.

## Mucokinetica develops inhaled treatment for Cystic Fibrosis

Mucokinetica's first therapeutic product target is an inhaled treatment for Cystic Fibrosis. Pre-clinical research undertaken by the company at the Royal Veterinary College has found that Mucokinetica's treatment showed a significantly improved efficacy and duration of action compared to existing treatments.

Mucokinetica has already obtained Orphan Disease designation from the European Commission for development of its CF treatment and recently completed filing a patent application. The company is now aiming to identify partners and funders for the next stages, beginning with late stage research using a method modelled on one that has been used extensively in human respiratory disease research.

## Alacrita's team grows in US and London

Alacrita, the life science management consulting firm, has strengthened its teams on both sides of the Atlantic. Pierre Dodion has been appointed as an Associate Partner based in its Cambridge, MA office, bringing first-hand experience of developing and launching drugs in Europe to assist companies looking to develop, launch or partner their products in the European market. In the London office, Dr Mark Wickham has joined the company as its fourth partner, to further develop Alacrita's growing business in the medtech sector.

LBIC welcomes the companies listed below, who have joined the Centre over the past six months:

- Cipher Surgical
- Mu Innovations
- Crucell Vaccine Institute
- London Ethnic Skin

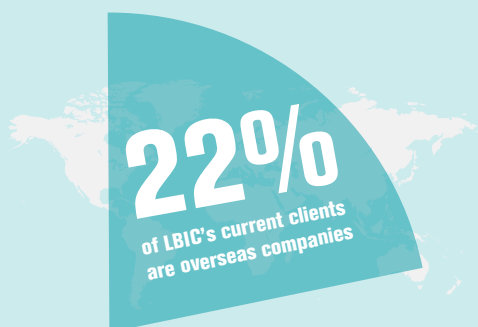
# Supporting Life Science: LBIC's role

As life sciences become ever more significant to the UK economy, having the right support for these companies is of vital importance.

Biotech companies face many challenges and they have a diverse range of requirements to help their business grow. Some have great scientific ideas but lack the business knowledge to deploy the idea successfully. Others may need to secure

investment or to market their product. An innovation centre like LBIC can provide a valuable boost for companies both large and small by providing access to relevant networks, supportive infrastructure and opportunities for collaboration.

LBIC has 50 current clients and has supported over 100 companies since 2001, from 16 countries across Europe, North America and Asia.

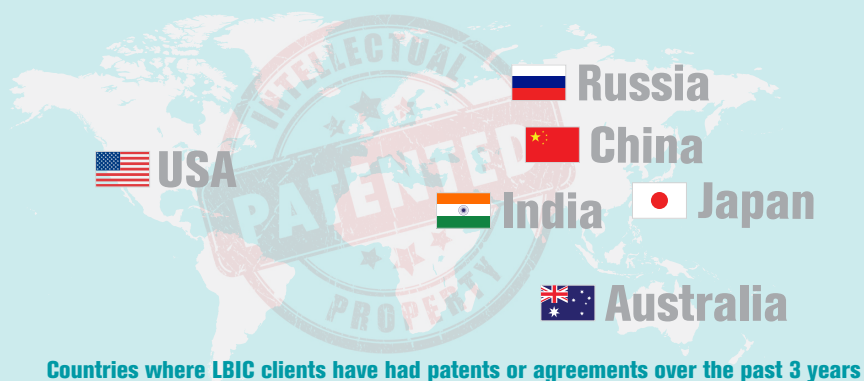


LBIC clients have received over

£5 million

of BioMedical Catalyst Funding

1 in 10 BioMedical Catalyst Feasibility awards have gone to LBIC clients



## The emerging synthetic biology sector

# SynBioBeta

LBIC attended the second annual SynBioBeta London conference in April along with client companies Synthace and Sciad.

The conference explored the emerging synthetic biology industry, technologies from which can be applied in a range of areas, from agro-chemicals to healthcare to food science. Innovations highlighted by presenters included manufacturing bespoke enzymes, plasmids or DNA, "4D bio-printing" of programmable matter and even modifying mosquitoes to prevent the spread of Dengue fever.

David Willetts, Minister for Universities and Science, and Kit Malthouse, Deputy Mayor of London spoke at the conference, stressing the potential significance of synthetic biology for the economy in the UK in general and London in particular. Kit Malthouse also emphasised the need for the right support for SMEs and spin-outs in order for them to succeed, saying that "all research will go nowhere without risk capital."

The field of synthetic biology embraces a multi-disciplinary approach that can be attractive to investors – as is true of a lot of life science investment, several venture capitalists and angel investors in attendance said that they were looking to invest not in 'synthetic biology' companies

but in those that present solutions to problems. Synthace embodies this approach and has received funding from one such investor. As CEO Tim Fell explained in his presentation, Synthace applies multi-variant mathematics to reduce the number of experiments required and thereby makes their research faster and more effective.



# Women in biotech: Sally Waterman

**Deborah Cockerill interviews Dr Sally Waterman, Senior VP Corporate Development at PolyTherics and based at LBIC. PolyTherics provides proprietary and complementary technologies and services to enable the development of better biopharmaceuticals. The company has grown significantly over the past year, driven by its merger in July 2013 with Cambridge-based Antitope, a specialist in immunogenicity testing and antibody humanisation.**

Sally's industry career began in regulatory affairs with large pharmaceutical companies before moving on to build a contract regulatory group. She then worked for several biotech companies before joining PolyTherics as COO, applying both her operational and leadership experience. Following the Antitope merger, Sally was appointed Senior VP Corporate Development with responsibility for obtaining value for a portfolio of product assets that apply the companies' technologies.

## ***Why did you switch from working for big pharma to smaller biotechs?***

Like many who study life sciences, I joined the industry to create products that will treat diseases and make a positive difference for patients. That is a strong motivator, especially in areas such as oncology where there is a need for more effective and better tolerated treatments. It's very rewarding, although you have to accept that product failure and changes in corporate priorities mean that more products in development are discontinued than reach the market. Whilst larger companies are generally more able to withstand product failures than smaller ones, your ability to influence the development process in a larger company is limited. The attraction of joining a biotech is

that you have greater opportunity to make a difference and, in general, the roles have a broader scope and thus more variety. The disadvantage is that biotech companies are generally poorly funded, at least in the UK, and their future is less certain.

## ***Do you have any advice for women wanting to work in biotech?***

I have some general advice that applies to everyone wanting to work in the most senior positions in this industry and then some specific comments about being a woman in biotech. Firstly, I believe that it is really important to get business development experience, especially in negotiating commercial deals. I'd also say that working in drug development in a big pharma would also be valuable as it provides the opportunity to understand how development can be done when there are fewer constraints on resources than there usually are in a biotech. Behaviours are critical to personal success: you need to have the confidence to put your point of view across whether in meetings or in one-to-one conversations. I'd advise women in particular to be well prepared for meetings so that they feel more confident to speak out – this includes making time to be well informed about the external environment that shapes your company's strategic thinking.

Just as important is building your own network both internally and externally to create advocates for your thinking and your personal ambitions. Doing so will raise your personal profile which is very important if you want to reach the highest level. Also, ensure you pay attention to managing people at all levels of the organisation, which means both downwards and upwards! It's important in business, as in life in general, to remain calm under pressure and, of particular relevance in the biotech sector, have a positive attitude when things are not going to plan and don't give up until you have considered all possible solutions.

## ***And your thoughts on the challenges that women face in this industry?***

The industry welcomes women and there are some types of roles which are predominantly filled by women, particularly in clinical development. Despite it being an environment where women can thrive, there are still very few in senior positions. I think that one of the reasons for this is that women are not always very good at highlighting what they have achieved or making a contribution when they could – for instance, sitting back and letting the men do all the talking in a meeting. It's not surprising that they are not at the forefront of the minds of those in a position to influence their careers. What can we do to change this? Well, I think we have to try that much harder to make a contribution and to get our voices heard. Making the effort to speak to people about what we are doing – and what we think could be achieved for the benefit of the business – is a good place to start. The barriers to success in biotech are a little greater for women than men, as they are in so many industries, but women can and do make a major contribution to this industry. Biotech offers a positive environment for women and I'm confident that women's contributions to the success of the biotech sector will only increase in the future.



# Focus on Cogent

We talk to **Pauline Maden, Head of Higher Education at Cogent and founding manager of their ground-breaking Industrial Placements Service.**

## Can you tell us about the Service?

Cogent's Placements Service is designed to enable life-science employers to host industrial placements through a range of support mechanisms, and in doing so, enhance the employability of STEM graduates.

There is a justified fear that the industry is losing talented graduates because they haven't necessarily got the right work experience to hit the ground running following graduation. We are trying to fix this and employers are the most crucial part of our plan.

As well as providing young people with coaching and advice, we are working with careers departments and academics within nearly a hundred UK universities,

which allows us to target students who fit the bill when sourcing student candidates on behalf of employers.

Students and employers alike have

recognised for a long time the value of placements; they are an established method, particularly in STEM subjects, of linking the university with the workplace, but numbers on sandwich degree courses are in decline.

## How did the project start?

When David Cameron launched the Government's 10-year Strategy for UK Life Sciences, he set out the long-term vision for support and growth of life science SMEs poised for high growth.

The strategy focuses on three key principles, one of which is to attract, develop and reward the best talent in the industry. Both the Government and the Office for Life Sciences

acknowledge the need to nurture the highly skilled researchers, technicians and clinicians, and the industry needs to take full advantage of the global opportunities



ahead. One particular scheme, backed by employers, was to introduce a service to attract and retain the highly talented undergraduate talent pool. And Cogent, on behalf of employers, bid for and successfully received infrastructure funding from the UK Commission for Employment and Skills (UKCES) to get the initiative off the ground. The funding came with very stretching targets, but with nearly a year behind us we are well on track. The support from employers has been very encouraging.

## What's your message to employers?

By hosting a placement student you will build links with the university which could lead to joint research and you will raise the profile of your brand among students and universities. You will also benefit from their enthusiasm – because you are investing time in them they will bring a fresh approach and a potential new way of working.

In taking part you will be contributing to the development of a future talent pool with the capabilities that the science sector needs for years to come.

## China focus: IXICO's success

**Brain health company IXICO continues to drive progress in improving the diagnosis of dementia, aided by grants from the Technology Strategy Board.**

NHS patients will shortly be enrolled in a project to use IXICO's technology to make diagnosis in the community more accessible, and the company has also demonstrated proof of principle on a dementia prognosis tool.

IXICO's successful technology has allowed the company to adopt a global outlook regarding dementia diagnosis. The company's CEO, Prof. Derek Hill, was a member of the Prime Minister's recent trade delegation to China, where

approximately 25% of the world's dementia cases occur, resulting in annual healthcare costs of around £5.5 billion. By 2040 the number of cases in China could equal the combined total in all high-income countries.

IXICO has signed a memorandum of understanding (MOU) with the Beijing Union Medical and Pharmaceutical General Corporation (UMP), and IXICO and UMP aim to work together to deploy IXICO's technology in China to support dementia diagnosis and advance the public



*IXICO sign the MOU in Beijing (left to right: Derek Hill, CEO of IXICO, Lord Livingstone, UK Government Trade Minister, and Steve Tao Jiang, General Manager of UMP)*

understanding of dementia in China.

Following execution of the MOU with UMP, IXICO has also been awarded its first contract for specialist drug development services with a Chinese pharmaceutical company.

# Social media and biotech

## A risk too far or an opportunity not to be missed?

BY DEBORAH COCKERILL AND RICHARD ANDERSON, SCIAD COMMUNICATIONS



**Does social media have a role to play in building your company's reputation? When the audiences that you need to reach are mainly business people, will they listen to what you and your company are saying through social media channels?**

Perhaps it's better to look at it from the other perspective. Are traditional communications channels sufficient to maximise your company's reputation and value? It's always possible to get some press coverage about your company's news in specialised media and plenty of people believe that meeting people at conferences is sufficient. But when there are so many other ways of reaching people are you doing everything to maximise your share of voice?

To provide some context, the more specialised biotech media have dramatically reduced the number of journalists that they employ over the past few years, so getting

consistently good quality news coverage and analysis has become more challenging and time-consuming. At the same time mainstream media are serving the sector less well.

In the UK far fewer health stories were published in 2013 than in 2012, so reaching the public using newspapers has never been tougher.

With social media, the answer lies not in promotion but in adding value. It's important to learn what will really differentiate your business in the eyes of the people you



need to reach so they'll become your advocates. Big pharma has begun to take the lead and most have a social media presence but so far it's tended to be one-way traffic for news rather than a

proper conversation as the regulatory environment can be daunting. But things are changing and there are increasing numbers of companies that are opening LinkedIn and Twitter accounts in the name of their CEOs with the most recent high-profile example being Ian Read at Pfizer.

So why wait? You could be using social media to build a competitive edge, but it needs a shift in thinking. Instead of waiting for others to be publishers of your opinions and news, think of your business as a

self-publisher. Use your LinkedIn and Twitter accounts to tell people what you have to say. The audiences are huge and relevant, with nearly all journalists on Twitter and some using tweets as their news source. Investors can be found there too so it's a great way to reach people who can help you. Instead of just emailing your press release and hoping for the best, you'll find that you can connect more directly and

quickly. Next time you meet people at a conference they'll be more receptive to what you have to say. For an industry that's built on innovation, isn't it time to try something new?

## LBIC hosts inspirational student study visit

**In March LBIC hosted a delegation of MSc Molecular Medicine students from the University of Essex.**

The students enjoyed a tour of LBIC and talks by the enthusiastic senior members of client companies iQur and deltaDOT. The group received an introduction to the career opportunities in the life science industry.

The visit explained concepts such as the healthcare market, intellectual property and how to exploit novel ideas in biomedicine as a business venture. See right for some of the feedback from the visit.

### “ Delegates' feedback

“Thank you for giving us the opportunity to broaden our horizons”

“It gave me an idea of the challenges faced in running a biotech business”

“The trip really inspired me to work hard and achieve great things”

# Genesis Genetics



A Genesis Genetics scientist in the lab

**Joel Dudley interviews Tony Gordon, Managing Director of Genesis Genetics in the USA and Lab Director of the company's new UK facility at LBIC.**

## **When and how was Genesis Genetics established?**

Genesis Genetics was established just over a decade ago in Detroit by Prof Mark Hughes as a privately held spin out of Wayne State University. Since then we have gone on to open labs in Arizona, Brazil, South Africa, Jordan, Taiwan and Nottingham, as well as our LBIC lab.

## **What is the focus of Genesis Genetics?**

Genesis Genetics UK's focus is threefold.

Pre-implantation genetic disease (PGD) whereby we diagnose single-cell biopsies from IVF embryos to ensure that subsequent children are born free of serious inherited disorders. For each family we develop a unique genetic test to ensure that we can identify that only unaffected embryos are implanted.

Pre-implantation genetic screening (PGS) of embryos for chromosomal abnormality. PGS is used to select IVF embryos at day three or day five of development to identify euploid

(chromosomally normal) embryos with the aim of improving the success rates of IVF.

Non-invasive pre-natal diagnostics (NIPT). This is a new test for Genesis Genetics, working in collaboration with Illumina, whereby we can take a blood draw from pregnant women at 10 weeks or later and use massively parallel genome sequencing to identify with great accuracy, from embryonic DNA in the maternal blood serum, whether the embryo (or twin pregnancy embryos) have normal copy numbers of chromosomes 13, 18, 21, X, Y.

## **What are your key achievements so far?**

In 1993 Prof Hughes was the lead scientist in Prof Lord Robert Winston's group at the Hammersmith Hospital that successfully performed the first PGD procedure on an IVF embryo that resulted in a child being born free of any known inherited disease. Since 1993 Genesis Genetics has gone on to lead the field of PGD and has run more PGD cases, for more disorders, than any other group in the world.

In 2008 Genesis Genetics started offering PGS and we have gone on to run PGS analysis of thousands of IVF cycles. Working in collaboration with some of the best IVF programmes in the world, our IVF + PGS results show probably the best IVF global success rates.

## **What attracted you to set up at LBIC?**

Location, location, location. London has one of the highest concentrations of private IVF centres/cycles in the world, with 14 being within two miles of the LBIC, which means that we can offer a seven-day-a-week personal pick-up service and great customer service for our IVF customers. Being in London is also important for our global business appeal.

LBIC also offers 24-hour reception, which is essential for us as pre-implantation genetics is 24-7 with often next-day turnaround time. LBIC also offers many additional services, such as laboratory waste collection and cleaning, which are difficult to obtain outside bio-incubators. This makes running Genesis Genetics UK much more straightforward.

## **How has being based at LBIC helped your business so far?**

We have had great support from LBIC with our laboratory fit-out and on a couple of occasions where we've had an equipment failure we've been able to access LBIC/RVC facilities or had help from the community of companies at LBIC to ensure that our lab can keep functioning.

## **What aspirations do you have for Genesis Genetics in the future?**

Globally we are expanding, with new lab locations in development. At LBIC we are aiming to bring our existing tests to new customers in the UK, Europe and the Middle East, as well as bringing along new testing in the reproductive genetics area, such as non-invasive prenatal testing.

# LBIC: Where enterprise comes to succeed

The London BioScience Innovation Centre (LBIC) provides a focus for life sciences activity in the UK capital, offering laboratory, office and meeting room facilities of an exceptionally high standard and a professional front door that cannot fail to impress.



## Lab and office space

LBIC's containment level II laboratories are designed for a variety of functions such as molecular biology, protein biochemistry and cell culture. Key features include class II safety cabinets, integrated gas piping, sterilisation services and access to offices and write-up suites.

## Hot desks

LBIC's newly launched hot desking facility means you can rent a permanent desk in a shared office, or simply pay by the hour as needed.

## Virtual client offer

Virtual tenancy at LBIC is an excellent choice for companies looking for a low-cost

way to establish a presence in the UK capital. Virtual clients gain the advantage of a central London address and access to a range of benefits (see below).

## Meeting rooms and conference facilities

LBIC offers a number of meeting rooms and conference facilities for client use or occasional hire by non-resident companies. Catering can be provided upon request.

## Benefits

- Reception services
- Full business support package via the LBIC Business Support Network
- Regular invitations to events, training and seminars
- Complimentary 12 months' One Nucleus membership with access to its Purchasing Scheme
- Presence in LBIC marketing and communications
- Access to Royal Veterinary College services and equipment, including contract research, diagnostics and imaging

Contact Janette Richardson at [jarichardson@rvc.ac.uk](mailto:jarichardson@rvc.ac.uk) or Tel: +44 (0) 207 691 2071 to see how we can help.

## Contact us

LBIC has been supporting life sciences companies since 2001. Today we host over 50 companies ranging from entrepreneurial start-ups to more established UK companies and overseas subsidiaries from Europe, North America and Asia Pacific. The Centre is owned



and operated by the prestigious Royal Veterinary College, one of the independent Colleges of the University of London.

The Centre is a 10-minute walk from St Pancras International for Eurostar services and the site of The Francis Crick Institute.

## Our management team comprises:

**Dr Ken Larkin**  
Chief Executive

**Patricia Latter**  
Deputy Director

**Janette Richardson**  
Operations Manager

**Paula Burton & Joel Dudley**  
Marketing Communications

**Lucy Garnsworthy**  
Assistant Operations Manager

**Mariane Meyer, Shane Wardle & Louisa Bhairam**  
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## Would you like to feature in our newsletter?

If you would like to contribute to a future issue of LBIC News, contact **Lucy Garnsworthy** on +44 (0) 207 691 0982 or email [lgarnsworthy@rvc.ac.uk](mailto:lgarnsworthy@rvc.ac.uk)



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