London BioScience Innovation Centre
WHERE ENTERPRISE COMES TO SUCCEED

Winter 2021

LBICnews

From the London BioScience Innovation Centre

Happy 21st Anniversary, LBIC!

LUCY GARNSWORTHY, LBIC

12th June 2021 marked the 21st anniversary of the incorporation of the London BioScience Innovation Centre (LBIC). During the past 21 years, LBIC has supported over 200 companies across the breadth of biotech and life science and helped create and sustain employment and build shareholder value. We have made great efforts to support our companies through the challenging early years of their development and many have gone on to grow and flourish and establish their own independent premises whilst some have remained with us in Camden on a long term basis.

LBIC is proud to be a wholly owned subsidiary of the Royal Veterinary College (RVC), itself founded in 1792 in Camden on what would later be named Royal College Street. The main building that now houses LBIC is the McFadyean Building, named after Sir John McFadyean, widely seen as the founder of modern veterinary research and pathology in the UK, and former Principal of the RVC. It was built in the mid-1920s (as shown by the stones in its front façade) and was originally used by the RVC's Pathology department. By 1999, the department had largely moved to the RVC's larger Hawkshead site in Hertfordshire, leaving the McFadyean semi-vacant and dilapidated, with damage from World War II covered over with concrete.

Sir John McFadyean

The idea to utilise the building as a life science hub came from Professor Colin Howard, a virologist and Vice-Principal for Research at the RVC. Prof Howard recognised the need for laboratory and

Continued on page 3

WELCOME

We start this Winter 2021 issue with a warm welcome to our new CEO, Rich Ferrie. Since he joined us in July, Rich has settled in very well with the LBIC team and we all look forward to a bright future for the business. In looking to the future, we must also consider sustainability and I'm delighted to feature some tips from our newly appointed Environmental Champion on page 4. Also in this issue, we are proud to reflect on 21 years of success for LBIC and our clients.

2021 has brought many challenges, one of which is supply chain issues – turn to page 7 to learn more about Biocair's solutions. Page 6 outlines the UK government's continued commitment to life science innovation.

Sustainability, solutions, investment: these are key watch words as we go into 2022.

L. Gatty

Lucy Garnsworthy, Editor

In this issue:

Diabetology's insulin pill could provide a breakthrough in early-stage diabetes treatment

Diabetology Ltd, a company within the Proxima Concepts Group, has successfully completed a phase 2b study with its Capsulin™ oral insulin pill in early-stage type 2 diabetes patients.

The target dose brought blood glucose levels back down towards recommended ranges within just 12 weeks of treatment, with no accompanying weight gain.

The capsule delivery also produced no incidences of hypoglycaemia in the 12-week treatment period, even at double the target dose, due to the absorption process. In addition, reduced levels of triglycerides and cholesterol in study patients indicate that Capsulin™ may lower the risk of cardiovascular disease.

Administering insulin without patients overdosing and the associated risks is a much-needed breakthrough in treatment and could allow all diabetes patients to use a human insulin at any stage of the disease.

The convenient-to-swallow capsule formulation is stable at room temperature and contains no new chemical entities, making it very safe and easy to manufacture cost-effectively on a large scale.

The company is preparing further studies that could be pivotal for regulatory approval for Capsulin™. This is likely to have a major impact on treatment for the 4.7 million old and young people with diabetes in the UK, who incur a health expenditure of £10 billion per year.

www.diabetology.co.uk

Fabrican's seamless sprayable gloves

Fabrican has developed an innovative method of manufacturing gloves with robotic sprayers.

In common with many Fabrican sprayable fabrics, the glove material can be redissolved and resprayed again to create new items. Compostable binders in the fabrics mean that they can be processed as biodegradable waste at the end of their useful life.

The new technique speeds up and simplifies the manufacturing process, removing the requirement for seams, stitches, and human interventions to manufacture gloves in factory settings. Liquid formulation is sprayed onto metal glove moulds where it instantly solidifies, forming a non-woven fabric. A puff of air releases the glove from the mould and the robotic sprayer is ready to create the next glove.

The fabric has a pleasing suede-like texture and is suitable for fashion and protective gloves, and for sporting gloves and pads. Fabrican's spray-on material can be impregnated with rubber or silicone, or coated with sand to enhance water resistance, grip, and other properties.

www.fabricanltd.com

Fabrican sprayable glove
- *Instant drying time*
- *Excellent consistency of thickness*
- *High elasticity and resistance*
- *Easily peeled off*

New leadership at Prokarium

Prokarium, a biopharmaceutical company pioneering the oncology field of microbial immunotherapy, has recently made some changes to its management team and board of directors.

Kristen Albright, PharmD, an accomplished industry leader with broad experience in finance, business development and operations, has been appointed Chief Executive Officer.

Uz Stammberger, MD, with two decades of experience in oncology drug development and research, has joined Prokarium as Chief Medical Officer, leading the advancement of Prokarium's oncology pipeline into the clinic.

Livija Deban, PhD, who has led Prokarium research since 2018 with expertise in oncology and mucosal immunology, has been promoted to Chief Scientific Officer.

Thomas Eldered has been appointed Chairman, bringing over 30 years' leadership and executive experience in the biopharmaceutical industry, successfully leading biotech innovation from early-stage research through to commercialization.

LBIC welcomes these new clients to the Centre:

- **Flerie Invest**
- **Ultimate Bio**

Continued from front page

office space in London to allow life science companies to take advantage of the resources and expertise available in the city. The Minister of Science at the time, Lord Sainsbury, was encouraging collaboration between industry and academia, creating demand for such a space. Prof Howard successfully approached the London Development Agency with a proposal: "The concept was to develop the project in a step-wise fashion, using each stage to prove the feasibility of the business model to progress to the next."

LBIC has followed these steps since the first refurbishment, building the Phase III extension into the garden in 2005 and then in 2010 taking on space in the RVC's Amoroso building, named after Emmanuel Amoroso CBE, a pioneer of reproductive physiology and former Professor at the RVC.


HEALTH

Mayor Ken's £1.4m backing to research at science centre

Mad cow test success at new bio-lab park

One of the very first LBIC clients to move in was Microsens. CSO and Founder Stuart Wilson says: "When I founded Microsens in 1999, there were few, if any, facilities at that time in London for biotech start-ups that were not university spin-outs. I knew Colin from our virology days and heard that he had an ambitious plan. Until that plan was hatched, we camped out in Colin's lab, the 'yellow submarine', a lab that, true to the name, leaked water from the roof when it rained.

"After metamorphosis of the labs into LBIC, Microsens moved into LBIC proper. We have hopped around within LBIC over the years buffeted by the winds of fortune. We have been lucky to survive (sometimes, just) through sales of our BSE tests, TB tests and COVID tests. But if Colin hadn't taken us in, and if LBIC hadn't been born, we might not have been so fortunate."

During its history, LBIC has hosted many visits from delegations and VIPs, including Princess Anne. There have also been opportunities for students to visit or undertake a placement with LBIC clients, to help develop the next generation of scientists.

One initiative was LBIC's BioPioneer bootcamps for young entrepreneurs, with a virtual tenancy at LBIC as the prize for the best business plan. The 2011 winner was the co-founder of Synthace, a synthetic biology company spun out of UCL. In 2015, Synthace moved from virtual clients to physical lab and office space at LBIC to develop their 'computer-aided biology'. They were one of the World Economic Forum's '30 most promising Technology Pioneers 2016'. By 2018 they were ready to move to their own dedicated space in west London. Synthace now employs a large team, continuously attracts investment, and their new Life Sciences R&D Cloud was recently featured by Forbes.

LBIC currently supports 60 clients, overseen by a skilled administration and management team. Hopefully the next 21 years will continue to provide value to all involved at LBIC, bringing further success stories, and having a positive impact on the world at large.

LBIC CEOs

2000-2010 Professor Colin Howard

Colin Howard joined the RVC in 1991 from the London School of Hygiene and Tropical Medicine, taking on the role of Head of the Pathology and Infectious Diseases department. He was later promoted to Vice Principal for Research.

As founder and CEO of LBIC, Colin laid strong foundations that still stand firm 21 years later. His vision of attracting more diverse research activity to Camden and capitalising on the increasing appetite for commercialising research proved very perceptive. By the time he retired at the end of 2010, LBIC had completed his planned 'step-wise' development, proving at every stage that the concept was welcome. The LBIC client base had grown from two original tenants to 32 companies and brought value to the RVC through collaborations and projects with the RVC's Contract Research Unit.

2011-2021 Dr Kenneth Larkin

Ken Larkin graduated from the University of Warwick with a BSc (Hons) in Biological Sciences. He undertook a PhD in eukaryotic genetics at the Institute of Food Research, followed by Post-Doctoral research into Muscular Dystrophy at the Institute of Genetics. Ken gained in-depth knowledge of the global healthcare market during eight years at the East Midlands Development Agency.

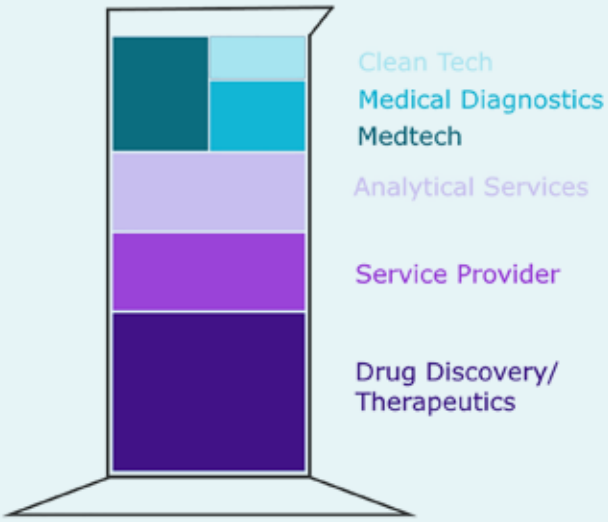
As CEO of LBIC, Ken forged new alliances, notably signing the One Nucleus Partnership deal that gives all LBIC clients a year's Gold membership. The number of clients increased by over 100% under Ken's leadership, reaching a peak of 68 companies.

Ken was also responsible for the RVC Business department of the Royal Veterinary College, overseeing pre-clinical and clinical services for human and animal health, pharmaceutical and biotechnology companies. This enabled even more collaborative work between LBIC clients and various RVC teams.

2021-Present Dr Rich Ferrie

Rich Ferrie became CEO of LBIC in July 2021. Turn to Page 5 for our interview.

Client statistics



LBIC clients by sector

LBIC clients by origin

5 easy ways to make a difference: Lab sustainability

BY ADAM RASMUSSEN ARDA, LBIC FACILITIES CO-ORDINATOR AND ENVIRONMENTAL CHAMPION

It is no secret that laboratories produce an eye-watering amount of plastic waste and require a huge amount of energy for the running of equipment and necessary accessories.

A 2015 *Nature* study* found that laboratories worldwide are responsible for plastic use equal to 83% of the plastic recycled worldwide in 2012, while also consuming up to six times more energy per square metre than standard commercial space in an identical building.

Universities are moving towards a more sustainable future with many pledging to be rid of single use plastics by 2024 and some are even striving to be carbon-neutral by 2030. However, the shift has been more gradual in industry labs as there is currently less legislation in place and there is often a greater need for sterility. It is imperative that we re-evaluate our use of plastics and make changes wherever possible in an effort to bolster sustainability.

1. **Ensure you are correctly disposing of your waste**: Total energy costs for the disposal of autoclave waste are much higher than clinical waste and sharps, which in turn is much higher than domestic waste. Always ask yourself: could the item in question be recycled? Can it be disposed of in domestic waste? Should it be disposed of as clinical waste or sharps?

2. **End-of-day checks**: The last person out should make sure to turn off lights and any equipment that does not need to be left on. A good idea is to have a sign printed out on the door to remind you before you leave.

3. **Reduce excess equipment energy consumption**: If you have multiples of the same equipment, e.g. freezers, incubators, or water baths, try to fill them one by one so that they are only switched on when needed.

4. **Keep track of shared reagents and chemicals**: Unnecessarily ordering stock can be avoided by using a shared inventory such as the program Quartzy or LabCup. It makes it quick and easy to check if you have something in stock, and allows you to request an order when running low.

5. **Clear labelling**: Clearly label samples and reagents to prevent important items from being lost and having to be made again. This can also prevent unneeded items from remaining in the freezer longer than necessary and can free up space for more items to avoid switching on another freezer.

*https://www.nature.com/articles/528479c

Interview with Rich Ferrie

BY LUCY GARNSWORTHY, LBIC

Q: Welcome to your new role as CEO of LBIC! What career path has led you to this point?

Thanks, Lucy. Well, I must blame David Attenborough for my original interest in biology. His Life on Earth series fuelled my imagination when I was at school and so I did a degree in biochemistry and a doctorate in molecular biology as a result. Then came a brief stint doing forensic research, applying DNA fingerprinting to scenes of crime samples, before working for the diagnostics business of AstraZeneca which is where I pivoted from scientific to commercial roles. After that, I helped Manchester University's innovation company create biotech companies before heading up its technology transfer operations and my last role was as Director of Innovation at UCC in Ireland. So, innovation and biotechnology are my passions and that's why I'm so enthusiastic about working with LBIC.

Q: What have been your biggest successes?

I have been involved in some great start-up companies which have gone on to float or be the target of corporate acquisitions, and I've done some important licensing deals along the way. I think it's important that early-stage companies have ready access to seed corn and series A finance, and for that reason I'm pleased that we were able to arrange university venture funds at both Manchester and UCC, where both universities were outside of the main financial centres in each country. My career has always centred around priming great research for commercial impact, and I'm looking forward to helping write the next chapter in LBIC's story here.

Q: What attracted you to LBIC?

I firmly believe that if you want to be involved in innovation in biotechnology then London is the best place to do that and LBIC is in the epicentre of what's happening in London's Knowledge Quarter. The research strength of the London Universities, the commercial and scientific expertise residing in the city, and the proximity to sources of investment mean that London companies will always have a huge advantage. At LBIC, we are proud to have a group of outstanding companies whose worth has really come to the forefront as COVID attracted record levels of investment into our sector. I look forward to LBIC playing an increasingly important part in their success.

Q: What do you see as the next steps for the business?

Well, it's about growing our business further, achieving even more impact from the investment in the London science base, and ensuring that our client companies are able to share expertise and knowledge as part of our network, allowing effective collaboration. We are working on some exciting initiatives and I look forward to sharing positive news as the results of this hard work come to fruition.

Q: How do you think the life science sector will develop in the coming years?

The recent BIA report pointed to a record year in 2020 for UK plc when it comes to the aggregate investment in biotech companies. At LBIC, we are experiencing unprecedented client demand and it's clear that we are in the right place at the right time for our business. Our success is based on over 20 years' commitment and hard work by many people before me, and I see myself as the privileged custodian of our business as we look to grow and develop as a key element of London's biotech sector. The future's very bright and it's great to be working closely with the LBIC team as we move to the next stage of our development.

Bon voyage to Mariane Meyer

October 2021 saw the retirement of LBIC's beloved longest-serving member of staff, Mariane Meyer. Mariane first joined LBIC and the RVC in 2005 and provided invaluable administrative support and reception services throughout her time with us.

Mariane was a familiar face to clients within LBIC and to virtual clients who needed help with events and other services. She also assisted with the Home Office License courses run by the RVC so was well known to delegates there. For the LBIC team, she was legendary for her constant supply of scalding cups of tea and her willingness to help whenever she could.

Mariane is moving back to South Africa to live near the beach and close to her adult children and her five grandchildren. We will miss her very much but wish her all the best. We also congratulate Lindy Brand-Daloze, our former Receptionist, who has taken on the Administrator role now that Mariane has left.

UK government investment in life sciences R&D consolidates strong 2021 focus on innovation

BY PHARMAMEDIC CONSULTANCY

Life sciences innovation remains high on the agenda for the UK government in the wake of the response to the pandemic, which saw organisations play a vital role in areas from genomic surveillance to vaccine development. The commitment to this innovation was reflected in a boosted investment into the life sciences sector within the Autumn budget and spending review with a £5 billion increase towards health-related research and development[1].

This milestone comes in the wake of several initiatives by the UK government over the last 12 months to underpin innovation. One such initiative is regulatory reform designed to make our processes more agile.

A crucial development in this context during 2021 was the publication of a comprehensive report by the Taskforce on Innovation, Growth and Regulatory reform. This task force was commissioned by the Prime Minister and led by Rt Hon Sir Iain Duncan Smith MP, Rt Hon Theresa Villiers MP, and George Freeman MP. The scope was to review the UK's overall approach to regulation following Brexit[2].

Within the pharmaceutical sector, the task force seeks to create a new UK clinical trials framework to replace the EU's Clinical Trials Directive. This framework would focus on innovative approaches, including novel trial designs, patient recruitment, translational medicine protocols, and streamlined processes within a unified health research data structure.

A suite of innovative regulatory proposals laid out in the report for clinical trials included expanding the remit of the MHRA to promote UK leadership in regulatory innovation and creating a joint unit to reform NICE Value Assessment and Procurement. Notably, the proposed reform of ICH GCP guidelines would embrace novel endpoints and synthetic control arms - these are vital developments reflecting the interests of the global regulatory environment.

In a related development, the UK's newly independent MHRA is now looking to transform the medical devices regulatory process to create more flexible and proportionate regulation for this industry. Like the pharmaceutical industry, medical devices came to the fore during the pandemic with innovative developments such as swiftly developed validated diagnostic tests.

Medical devices in the UK are currently regulated under the Medical Devices Regulations 2002. However, with the goal of transformation, the MHRA has been managing a comprehensive public consultation, soliciting experiences and views from the public to inform a new era of medical devices regulation. The consultation will conclude on 25th November 2021, and the resulting regulatory amendments will be introduced at the beginning of July 2023[3].

If you would like support from PharmaMedic in navigating regulatory pathways, email hello@pharmamedic.co

References:

1. https://pharmaphorum.com/news/industry-welcomes-boost-to-health-research-in-uk-budget/
2. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/994125/FINAL_TIGRR_REPORT__1_.pdf
3. https://www.gov.uk/government/consultations/consultation-on-the-future-regulation-of-medical-devices-in-the-united-kingdom

Introduction to Flerie Invest

We would like to introduce Flerie Invest who have selected LBIC as the location of their UK office. Flerie is a biotech and pharma investor managing a portfolio of more than 18 companies in Sweden, UK, US, the Netherlands, Iceland and Israel. Flerie was founded in 2010 by Thomas Eldered, who co-founded Recipharm and built it to be one of the top five CDMOs globally. The company has offices in Stockholm and London and is an active member of the British Venture Capital Association (BVCA).

London-based Ted Fjällman is a Partner at Flerie and previous CEO of their portfolio company Prokarium, also part of the LBIC family:

"It was a given that we would move in to LBIC as it ticks all of the boxes, being a vibrant biotech hub located in central London, bringing together some of the UK's most interesting life science companies under one roof".

Cell and gene supply chain logistics
Preparing for the unexpected

The complexity of shipping cell and gene therapies has increased since the start of COVID-19. Fortunately, logistics experts, like Biocair, have learned to adapt to many of the pandemic's disruptions. Using life science logistics experts can ease the burden and uncertainty of transporting valuable and life-saving materials across the globe.

What to look for in a life science logistics partner for your cell and gene supply chain:

Highly trained logistics teams who can advise on all aspects of your supply chain and navigate disruptions in real-time

Disruptions happen, but they don't need to jeopardize your time- and temperature-sensitive materials.

Regulatory compliance experts who can navigate complex rules and regulations when crossing borders

Detailed customs paperwork is crucial for an efficient supply chain, but you don't need to manage it alone.

The latest cold chain packaging and monitoring solutions for every temperature range

Know that your shipment will maintain temperature at every stage of its journey with validated packaging.

A global network of partners to improve reliability and control over your supply chain

Get regular updates about where your shipment is and its condition to ensure viability at the time of delivery.

Learn about Biocair's cell and gene therapy supply chain solutions.

www.biocair.com

BIOCAIR®

MOVING **SCIENCE** FORWARD

Virtual tenancy offers flexible London base

£600 for the first six months*

For companies looking to establish a London base, it is easy to think that a physical office is required. However, many companies find it simpler to take on a 'virtual' tenancy at LBIC, giving access to meeting room space when needed for important face-to-face meetings, but without the commitment and setup required with dedicated office space.

LBIC's experienced team has developed the virtual package to suit the varied needs of life science companies of all sizes.

Benefits of an LBIC Virtual tenancy

- A Central London address less than 10 minutes' walk from the international transport links of St Pancras International Station
- One-year complimentary Gold membership of One Nucleus, the international membership organisation for life science and healthcare companies
- Discounted client rates on meeting rooms, catering and video conferencing facilities
- A dedicated telephone line answered in the client's name and redirected as needed
- Mail collection and redirection
- Courier bookings at client rates
- Business Support Network to assist with doing business in the UK
- Access to RVC equipment and facilities, including the stunning Lightwell café
- Visible profile within LBIC and through our marketing and communications
- Option to cancel at any time, with just one month's notice period

The set-up process is quick and straightforward

Contact us at lbic@rvc.ac.uk or call +44 (0) 20 7691 1122 today to enquire about becoming a Virtual client.

* Additional charges may apply for certain services. A full list of charges can be supplied on request. Prospective clients will be subject to due diligence checks by LBIC management. Introductory rate is excluding VAT.

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) 20 7691 0982** or email **lbic@rvc.ac.uk**

London BioScience Innovation Centre

WHERE ENTERPRISE COMES TO SUCCEED

Scan the QR code for instant access to our website

Contact us

LBIC has been supporting life sciences companies since 2001. Today we host more than 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 Francis Crick Institute.

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