UCLB Business

# ANNUAL REPORT 2013/2014

UCL

# £7.8m 2013/2014

## Turnover

| | |
|---|---|
| £ 9.3m | 2012/2013 |
| £ 8.7m | 2011/2012 |
| £13.8m | 2010/2011* |
| £11.7m | 2009/2010* |

*Includes UCL Consultants


Equity Holdings

## Patent families

| | |
|---|---|
| 243 | 2013/2014 |
| 306 | 2012/2013 |
| 360 | 2011/2012 |
| 295 | 2010/2011 |
| 283 | 2009/2010 |

# £966,855

Funding for 37 Proof of Concept projects in 2013/2014

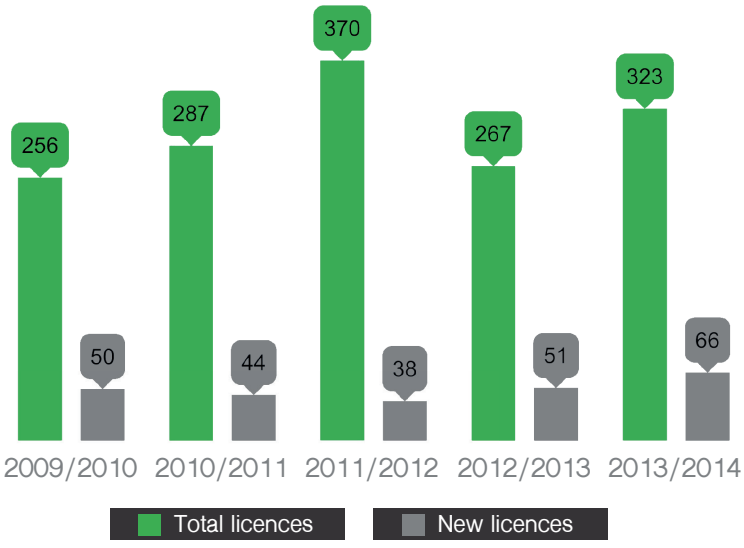
£945,000 for 26 projects in 2012/2013
£707,536 for 21 projects in 2011/2012
£567,189 for 29 projects in 2010/2011
£715,000 for 25 projects in 2009/2010

## Total number of drug discovery projects


| | |
|---|---|
| 2012/2013 | 26 |
| 2011/2012 | 21 |
| 2010/2011 | 23 |
| 2009/2010 | 23 |

## New patents applied for

| | |
|---|---|
| 40 | 2013/2014 |
| 41 | 2012/2013 |
| 44 | 2011/2012 |
| 37 | 2010/2011 |
| 42 | 2009/2010 |



# CONTENTS

# The Realisation of Research

## Message from

## CENGIZ TARHAN
## Managing Director

University research impacts on our daily lives – not a new concept, and one of the reasons universities establish technology transfer organisations – to create close collaboration between academia and industry.

UCL's TTO, UCLB, has been doing precisely this for more than 20 years, supporting collaborations, investments and partnering to develop technologies for licensing, manufacturing and clinical development. Our spinouts and licences benefit the economy, seek to eradicate major disease and develop technological innovation – this is 'the realisation of research'.

UCLB tries to ensure positive impact from every idea and technology we see. The Research Excellence Framework (REF) exercise for 2014 introduced commercialisation as a measure of the impact of research, so many of the licences, products and spinouts we created were included in the impact case studies UCL submitted for REF. The results showed that UCL was top in the UK for research power and impact. The role that UCLB played in achieving this is unquestionable, and indicates clear recognition of the importance of commercialisation in translation of research. As a result, we expect UCL to benefit from a significantly increased HEFCE grant for the next five years, together with the many millions of pounds of income from translational grants and collaborative research income which UCLB supports.

UCLB's key performance indicators – turnover, profit and portfolio value – all showed positive progress; portfolio value is an important financial asset for UCL. Highlighted projects in this report include collaborations with Chiesi Group and the Cell Therapy Catapult (both producing potentially life-saving therapies) and spinout company Senceive, a track movement management system intrinsic to safety in the Crossrail project and currently in use at Pudding Mill Lane, London. 2014 saw the launch of our rapid licensing portal 'E-lucid' – which we hope to introduce to other universities – to simplify and reduce the costs of managing and licensing software and similar products. Our Health Innovation Fund, in partnership with Healthbox, Numbers4Good, Traffod Housing Trust and Jenssen Healthcare Innovation, was launched to support social health-related ventures from UCL and our hospital partners, including UCLH, the Royal Free, GOSH and Moorfields.

The quality of UCL and its partners' research, working with and engaging the best researchers and clinicians, partners and staff respectively, means we can continue to deliver better outcomes. This is high-risk, long-term work with benefits often not seen for many years, but I remain convinced that we need to invest in UCL's research and commercialisation to benefit future generations.

Please get in touch if you have any ideas and wish to work with UCLB – I hope you enjoy this year's annual report.

# UCLB's rapid online licensing portal


**Now available to universities across the world**

## UCLB's online licensing system, E-lucid

E-lucid is an online system developed by UCLB to enable self-select, automated licensing of intellectual property (IP) created within UCL. Intended specifically for licensing lower value IP such as software and materials, E-lucid's automated licence transaction process saves UCLB significant time and effort as well as bolstering income. It is now offered as a managed service platform to other technology transfer offices (TTOs).

Having successfully transacted hundreds of fee-paying licences as well as thousands of free of charge academic licences through E-lucid over the past 5 years, UCLB has not only been able to offer its licensing services to more of the academic population and tap into a new 'volume' revenue segment, it has also benefited from the release of significant amounts of its own people's time. E-lucid has allowed UCLB's people to instead focus on the management of more involved 'traditional' transactions. Today, UCLB manages a substantial proportion of its material transfer agreements entirely through the system.

UCLB now offers the full features and benefits of the system as a white-label licensing platform to other technology licensing organisations, and at the beginning of 2014 started service contracts with its first three customers: the TTOs of Edinburgh University, Manchester University and Imperial College London.

Dr Angus Stewart-Liddon of Edinburgh Research and Innovation said: "We are continuously looking to provide industry with faster and easier access to technologies and materials developed. We were, therefore, delighted to collaborate with UCLB on implementation of our new 'click-through licensing' portal, based on their E-lucid system."

With the system now in use by four licensing organisations, its flexibility has been demonstrated by the many different types of IP that are hosted on the portals. The system is particularly adapted for licensing of digital media, where the files can be downloaded automatically and instantly by the customer following the online licensing and payment transactions. Available products include software programmes, excel spreadsheets, questionnaires and copyright images.

During 2014, further functionality was added to the system to support consumer sales of physical goods developed at the host institutions. The first product to be successfully launched using this new feature is the programmable teaching device Engduino®, developed by UCL Engineering and now sold to schools, educators and parents.

www.e-lucid.com

## Catapult

In May 2014, UCLB- along with Imperial Innovations and the Cell Therapy Catapult- formed a company to take a new leukaemia-fighting cell therapy to market.

Catapult Therapy TCR Ltd will develop a gene modified T-cell receptor (TCR) therapy targeting Wilms Tumour 1 (WT1), over-expressing cells with potential utility in treating WT1-associated cancers such as acute myeloid leukaemia (AML) and related bloodborne disorders that affect thousands of patients in the UK each year.

The new therapy, developed initially by Professor Hans Stauss at Imperial College London, and further developed at UCL in collaboration with Dr Emma Morris through funding by the charity Leukaemia & Lymphoma Research, has recently entered into an MHRA- approved Phase I/II human clinical study, with a second trial involving a therapy targeting myelodysplastic syndrome expected to commence in 2015.

AML is a cancer of the myeloid line of blood cells. It is characterised by the rapid growth of abnormal white blood cells. White blood cells, made in the bone marrow, are the immune cells involved in protecting the body against both infectious disease and foreign invaders. The overproduction of abnormal white blood cells seen in AML leads to an accumulation in the bone marrow, causing a deleterious interference in the production of normal blood cells such as red blood cells, platelets and normal white blood cells.

The therapy works by the genetic modification of a patient's own type of stable, non-cancerous immune cell called a T-lymphocyte or T-cell, which upon reinfusion into the body following modification specifically recognises and destroys cancerous cells exclusively expressing the WT1 protein on their cell surface. This results in the effective elimination of cancerous cells whilst sparing the healthy non-cancerous cell population.

Offering a significant improvement on current treatment options, it is hoped the treatment will enable the immune system to acquire memory to enable the control of leukaemia if it returns.

Dr Barny Cox, Senior Business Manager at UCLB, said: "This therapy is a great example of the wealth of opportunity that lies within UCL's research base and the important role UCLB plays in helping to bring innovative ideas from laboratory to market. It's hugely rewarding to be part of a project like this, which promises to bring real benefit to patients."

**"UCLB is committed to supporting the development of social ventures as a mechanism to translate UCL's innovative knowledge base into products and services that can provide substantive benefits to society."**

**"UCLB's support for REF was invaluable."**

## Message from

## PROFESSOR STEPHEN CADDICK
## Vice-Provost (Enterprise)

It's been another successful year for UCLB in continuing to make a significant contribution to enterprise and innovation at UCL. With a turnover of £7.8m, 323 licences and a portfolio of 52 spinout companies, UCLB is a core part of our enterprise activity, amplifying the impact of the world-leading research produced by UCL's academic community.

This year has seen greater success in bringing the benefits of UCL's research to society at large. An example of this is Catapult Therapy TRC Ltd, a joint venture created in collaboration by UCLB, Imperial Innovations and the Cell Therapy Catapult, to take a new leukaemia-fighting cell therapy to market.

The new therapy was developed initially at Imperial College London, then at UCL by scientists funded by Leukaemia & Lymphoma Research. By bringing together charitable grants, investment from venture capital funds and world leading research from London's universities, we can together drive innovation faster for the benefit of patients.

UCLB is also committed to supporting social entrepreneurs and has been key in setting up a Healthcare Innovation Programme, backed by the Cabinet Office. The programme is a unique health accelerator that invests in early-stage social ventures in order to stimulate innovation and create positive change in healthcare.

UCLB is committed to supporting the development of social ventures as a mechanism to translate UCL's innovative knowledge base into products and services that can provide substantive benefits to society. Together with our partners, we aim to identify and support social ventures that can address significant health and wellbeing challenges.

As well as supporting commercial ventures in life sciences, for the first time UCLB has collaborated with the UCL Slade School of Fine Art to hold the Slade Print Fair, showcasing works by both established and emerging artistic talent. As a result, funds raised have been reinvested in scholarships to nurture the next generation of fine artists.

UCLB plays a crucial role in the life of UCL, and I look forward to seeing an even wider range of support for increasing enterprise activity across the university in the coming year.

## What We Do

**UCLB is responsible for technology development and commercialisation transactions for UCL.**

**Offering world-class expertise in areas from life sciences to engineering and from the arts to the built environment, we work to make commercial connections between the expertise and innovations of UCL's academics and the needs of industry and the wider marketplace.**

## Our Mission

**To help, support and commercialise UCL research for the benefit of humankind in its widest sense.**

## Our first aim:

### Fulfil our Grand Challenges

The end point of research and innovation at UCL is focused on a set of Grand Challenges:

- Global Health
- Sustainable Communities
- Intercultural Interaction
- Human Wellbeing


This set of challenges forms the benchmark against which we judge all potential innovations emanating from UCL.

## Our second aim:

### Add value where we can

At UCLB we believe it is not enough to simply deliver technology transfer. We believe in bringing expertise and experience into the mix to add real benefit, through financial investment, strong intellectual property strategy, project management, prototype design, securing regulatory pathways and enabling access to markets.

This foundation of support is invaluable in ensuring that more novel ideas make the transition into marketable innovations for societal benefit and impact.

**This is what we call the 'realisation of research'.**

## Partner Hospitals

UCLB works with staff across UCL Partner Hospitals to support exceptional research and clinical practice for positive social, health and economic benefit.

## What is NHS innovation?

Innovation is the process of developing an idea to meet a technical or operational need. In the NHS this is usually a healthcare need that aids clinical practice towards a positive outcome.

In the healthcare sector, innovation can take different forms. Often innovation may be related to process and service management, but it may also be through the development of new medical technology or clinical tools. Examples of healthcare innovations include software, surgical equipment, self-management handbooks, new drugs and new therapeutic uses for drugs already used in clinical practice medical devices.

Innovation in healthcare aims to make the patient experience better and improve safety. It also has commercial potential not only to save costs but also to bring in income for the Trust and the innovator. In addition to having commercial benefit, healthcare innovation helps the day-to-day lives of hospital workers and patients.

**Services we provide include:**

- expertise in evaluating innovative ideas and identifying development routes and commercial potential
- help in identifying the barriers to innovation and solutions to overcome them
- advice on how to protect ideas to enable translational funding or collaboration with commercial partners
- expertise in identifying and applying for development or translational funding
- advice from legal experts on intellectual property or commercial agreements
- access to expertise around regulatory compliance, such as CE-marking
- experience of dealing with organisations that can produce prototypes, including (but not limited to) devices, surgical equipment and software
- negotiation of commercial terms with licensees or investors.

## Tissue Access for Patient Benefit

Tissue Access for Patient Benefit (TAPb) is an initiative supported by UCLB and funded by UCL Enterprise and the BRC, with the aim of facilitating access for researchers to a reliable source of human tissue. Such samples and associated data are of enormous value in multiple research areas within UCL and in UCL-linked hospital trusts.

TAPb generates income to support these activities by supplying tissue commercially. Projects involving the use of human tissues are initiated by researchers working with TAPb to define the project based on sample availability within a clinical pathway. Upon ethical approval through the UCL Royal Free Research Tissue Bank (which is administered by TAPb), patients are asked to consent to the use of tissues which would otherwise be discarded following an operation.

Thereafter, TAPb arranges tissue collection, processing and delivery, together with anonymised clinical data. Through a cost-recovery financial model, TAPb can facilitate internal translational research by charging commercial researchers at a rate that allows internal academic groups to access samples at a subsidised cost.

The data generated by such projects then provides the basis for grant applications within which the tissue provision element can be fully costed. This model has provided the mechanism for TAPb to recover its operational costs at the Royal Free Hospital for 6 tissue types, and has facilitated translational research for 17 UCL projects.

Following this successful pilot, the vision for TAPb is expansion of this successful model across other UCLP institutions. Establishment of TAPb's activities has allowed integration with existing resource within UCL and the NHS Trusts, such as biochemistry analysis and histopathology, to greatly increase the research value of the tissues while additionally providing the basis for a generation of new companies offering products and services in areas such as regenerative medicine and cell biology.

## Technology Pipeline

This diagram shows the number of active projects at each stage of the development process as of July 2014

**UCL Resources**
From UCL we have access to a wealth of new ideas, some of the finest academics and specialists anywhere in the world, and a consultative powerhouse that is virtually unmatched.

**UCLB Resources**
Within UCLB we have years of experience in technology commercialisation, including financial and legal expertise, marketing, administration and project management support, delivered through a team of dedicated Business Managers.

**Invention Disclosure**
We gather commercially promising ideas from across UCL faculties and associated institutions. We select ideas with the best chance of commercial success.

51 117

**Proof of Concept (Exemplification)**
We provide the critical funding to transform an idea into a proven innovation, demonstrating performance and confirming suitability for commercialisation.

21 49

**Patenting**
Where IP is generated, our patent team identifies the strategy that offers the best protection for the technology and manages the legal formalities associated with that strategy.

38 68

**Investments**

**Internal Funding**
We have access to significant sources of funding from within UCL and our own organisation.

**External Funding**
We have unrivalled connections to key external funding bodies, such as research councils and venture capitalists, and an enviable track record in matching funds to projects.

6 8

**Key:** Total number of active projects per phase

Engineering, Physical Sciences, Arts & the Built Environment

Biomedical Sciences

Time

**Exit (Marketing and Negotiation)**
Working with project innovators, we will help to identify the best route to market. Exit points range from licensing the technology to an industrial business and the creation of a joint venture collaborative research effort, through to the formation of a new company.

41 88

**Project Management**
We can navigate projects through the regulatory process, providing expertise and support through UCLH and other specialist trials facilities.

68 255

**Licensing**
We will publicise the technology and find industry partners that could benefit from it, approach potential licensees, negotiate an agreement and provide advice and support facilities.

Market

11

21 31

**Spinouts**
Where the technology would be better served by forming a new company, UCLB can set up a new entity, brand and promotion, incubate it and provide board-level support, as well as finding markets for its products and services.

External publicity

Project Management

# Success Stories

**UCLB has a successful track record and a strong reputation for identifying and protecting promising new technologies and innovations from UCL academics**

Collaboration

Innovation

Technologies

Social Enterprise

## Physical Sciences/ Engineering

### Senceive

UCL Electronic and Electrical Engineering spinout company Senceive Ltd is changing the face of remote condition monitoring across the construction and railway sectors. The company's innovative FlatMesh™ wireless mesh networking technology platform, integrated with high precision sensors, has been widely shown to provide a highly cost-effective, robust and scalable solution for monitoring tiny movements across geotechnical and structural assets like embankments, bridges, walls, tunnels and rail track beds.

One of the key recent high-profile deployments for the company has been to deliver a monitoring solution for a part of the Crossrail construction project. The Crossrail route will run over 100km from Reading and Heathrow in the west to Abbey Wood in the east, via new tunnels under central London. As part of this work, the old Pudding Mill Lane station on the DLR line has been removed and rebuilt approximately 200 metres away in order to accommodate the movement of one of 8 tunnel boring machines. To ensure that DLR and Network Rail operations are not impacted during the construction works, it is vital that the track bed and associated embankments are continuously monitored so that any small geotechnical movements across this infrastructure asset are detected quickly and accurately.

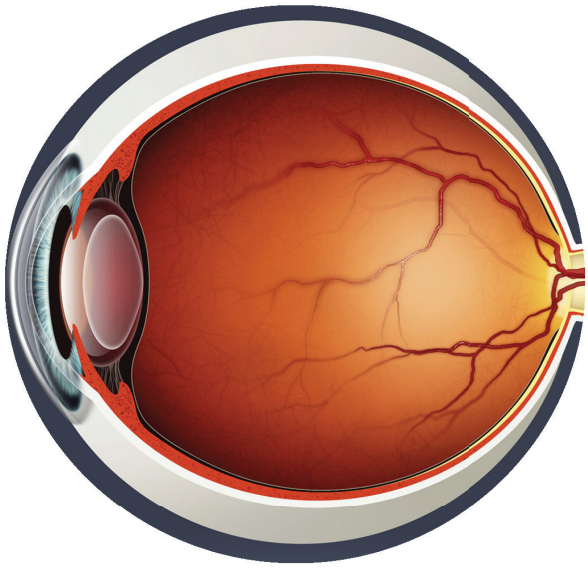
Senceive was approached by Morgan Sindall, the main contractor for the site, to provide a wireless enabled monitoring solution, as existing alternatives could not meet the challenging need for stable and accurate data on a very busy set of lines with all the inherent technical and maintenance requirements for the project.

Senceive subsequently deployed almost 700 wireless enabled high precision dual axis tilt sensors on three Network Rail and two DLR tracks in early 2014. The company continues to provide Morgan Sindall with highly accurate and stable data on track twist and cant as the construction works are progressed.

This is one of many projects the company is carrying out on Network Rail or London Underground assets currently. It has thousands of monitoring solutions deployed in challenging environments and is in constant demand.

Dr Steven Schooling, Director of Physical Sciences and Engineering at UCLB, commented: "Senceive is carving out a strong and highly differentiated position in the infrastructure monitoring sector. We are most encouraged that the company's innovative FlatMesh™ monitoring solution is being adopted for large construction and transportation projects by major customers including Morgan Sindall, Costain and Keller. We look forward to working with the management team to secure further revenue growth in 2015 and beyond."

www.senceive.com



## Project Management

**UCLB provides UCL departments and institutes with a comprehensive project management service.**

**Our project management experts will assist the principal investigator in managing the full cycle of the project. As well as providing support with funding applications, we also identify and manage specialist external contractors to support all types of projects. With a focus on commercialisation, our team maintain effective liaison with internal and external key parties and industry partners, ensuring the most effective route to market is delivered.**

## RetVas: a medical device for rapid screening of a blinding disease in premature babies with the UCL Institute of Ophthalmology.

There is a very significant need for a new automated screening methodology for use in developing countries. Currently, most preterm babies in middle income countries are not being screened for retinopathy of prematurity (ROP), resulting in an epidemic of blindness for life. This lack of screening is due to a lack of skilled expert doctors available to perform screening. RetVas would allow nurses to rapidly and effectively screen babies for ROP and consequently prevent a substantial number of cases of blindness.

RetVas is a fast, cost-effective and accurate tool ideal for mass screening of retinal vessels. RetVas can evaluate 15 images per second compared to the 4 to 20 images per day that a human grader can analyse. RetVas can identify premature babies that are at risk of developing ROP requiring treatment. Automated analysis of retinal images is achieved using bio-inspired software reverse engineered from human visual cortex physiology.

Martin Lavery, Project Development Manager at UCLB, worked in close collaboration with inventors and Senior Business Manager Rachel Hemsley to guide the product development ready for CE marking and commercialisation.

The product is to be licensed into a social enterprise lead by co-inventor Dr Clare Wilson.

## MonitorMe: remote patient monitoring with external collaborators.

Veronica Lindop, UCLB Project Development Manager, has been providing project management and product development services for the external company Sanandco Ltd. These services were provided in the development of a prototype of a novel product to meet the need for very low-cost remote patient monitoring (RPM). The MonitorMe phone is designed to provide an easy to use way for patients with long-term conditions to regularly record their vital signs information (temperature, heart rate, BP, etc.) in a single test procedure and share this with clinicians in real time. This allows trend monitoring and instant feedback of results to patients and clinicians alike, aiding diagnosis and monitoring of healthcare conditions and allowing timely interventions to be made if necessary.

UCLB has provided day-to-day management of the project, regulatory advice and sourcing of development partners. Veronica says: “It is fantastic to be able to be involved in such an exciting project which aims to provide a simple and low-cost solution that will directly benefit patients.”

## Social Enterprise

**UCLB is a pioneer among technology transfer offices for developing social enterprises – businesses that address social or environmental needs, reinvesting profits into the community or back into the business. Academics who want to start up a social enterprise arising from their research can access our comprehensive services, including business plan development, contractual and company formation advice, social impact measurement advice, and identification of social investors.**

### Health Social Innovators Fund

Launched by UCLB, Healthbox, Numbers4Good, Trafford Housing Trust and Janssen Healthcare Innovation, The Health Social Innovators' Programme (HSIP) is a unique health accelerator programme that will invest in early-stage social ventures in order to stimulate innovation and create positive change in healthcare.

Securing £600,000 of funding from the Cabinet Office's Social Incubator Fund (SIF), the programme aims to support the development and growth of early-stage social ventures which have potential to deliver tangible and significant social and healthcare benefits to the public.

The ventures participating in the first round of the programme are:

- Goshawk Communications, which is developing a software platform that can process an incoming phone or audio signal specific to an individual's hearing loss or needs over the telecoms / IP infrastructure.
- HearToday, which uses technology to help children with hearing loss get better access to education.
- Sensewheel: a lightweight wheel for wheelchair users with embedded technology to measure how the wheelchair is being utilised, thereby gathering data to refine the individual's rehabilitation programme using movement metrics.
- RetVas: medical image analysis technology that screens for diabetic retinopathy, a leading cause of blindness in both the working age group and elderly population, and builds upon world-leading and patent protected research from the UCL Institute of Ophthalmology.
- HelpDiabetes, which is delivering a web-based self-management programme and structured education for NHS patients with type 2 diabetes.
- Listen with Lemur, which allows children with cochlear implants to listen and learn sounds and distinguish between sounds post-implant.

Over the next two years, HSIP will be selecting additional health-focused ventures with the potential to create social impact. Ventures will receive seed capital, access to mentors, educational sessions and the opportunity to present at investor days, enabling their ideas to develop and take advantage of social investment opportunities.

Analia Lemmo Charnalia, Business Manager for Social Enterprise, commented: "UCLB is committed to supporting the translation of UCL's innovative knowledge base into products and services that can deliver benefits to society. Over the course of HSIP, we look forward to identifying ventures seeking to address significant health challenges as well as engaging with healthcare professionals, investors and commissioners who can help these ventures grow."

## UCLB helps to launch Slade Print Fair

UCLB, in collaboration with UCL's Slade School of Fine Art, conceived and launched the Slade Print Fair, an initiative to fund scholarships to support students embarking on their studies at the Slade.

Showcasing the very best in fine art, prints, editions and multiples from both internationally acclaimed and emerging artists, the Print Fair was an innovative approach to raising funds for Slade graduate student scholarships.

By providing sponsorship and support, UCLB aimed to help generate exposure for the Slade whilst raising awareness about the financial problems faced by future students. The Print Fair was a great opportunity for the wider community to engage in contemporary printmaking from high-profile artists, and provided people with a chance to support future generations of artists studying at the Slade.

The Print Fair was fundamental in raising the Slade's creative and enterprise profile while at the same time successfully testing a bold new approach to generating revenue. The event engaged UCL students, staff, alumni and the local community, advanced students' skills and professional development, and the funds raised will have a huge impact on access for lower-income students in the future.

The event now runs annually in November. The 2014 Print Fair raised more than £30,000, which has been donated towards six fully-funded graduate scholarships for 2014.

**"UCLB introduced sponsors and donors to us, which contributed significantly to the fundraising effort; however, it was invaluable advice and support UCLB gave that provided us with the confidence and infrastructure to enable us to launch this annual event." Professor Susan Collins, Director, UCL Slade School of Fine Art.**


## Spinout

**UCLB has a long and successful track record in creating some of the most successful spinout businesses in key new industries. From discovery disclosure, commercialisation strategy, business plan development, contractual advice and formalisation, through to incubation support, including the recruiting of management teams and identifying investors, UCLB's services cover the entire process.**

**A UCL research team led by Professor David Patterson, developed international standards for electronic health records (EHRs), allowing patient records to move with them to different health providers and clinicians in different settings to collaborate more effectively. This work has been successfully commercialised as a stroke prevention service through spinout company Helicon Health.**

**EHR has been placed at the heart of a unique package of stroke prevention services that helps the management of patients with atrial fibrillation (AF) who need anticoagulation. The service went into full clinical use at the Whittington Hospital, London in August 2008.**

**In 2012, the research was spun out from UCLB to form Helicon Health. The resulting package of services is now called HeliconHeart.**

**Helicon Health gives professionals and patients the tools and knowledge to collaborate effectively online for the prevention of stroke.**

**Helicon Health is compliant with National Institute for Health and Care Excellence (NICE) guidelines on anticoagulation and self-monitoring, and cited as a learning exemplar in NICE's guidelines for atrial fibrillation. It brings care closer to home, improves outcomes for patients with cardiovascular disease and saves money.**

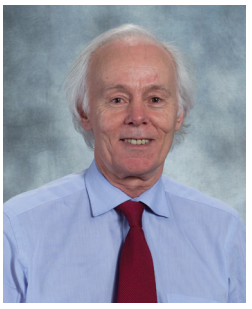
**Stroke is a growing problem but it is widely acknowledged that, with the right strategies, the number of strokes could be significantly reduced. Atrial fibrillation is a major risk factor for stroke.**

HeliconHeart supports the management of patients with atrial fibrillation through the establishment of tools to treat the main components of this increasingly common condition.

HeliconHeart is now being used by five NHS clinical commissioning groups (CCG) across north London and Hertfordshire, covering two hospital trusts, 30 general practice delivery sites and three community pharmacies (including Boots). It underpins care for 7,000 at-risk patients. Every prevented stroke saves the NHS £16,000 a year; the estimated saving to each CCG is approximately £500,000 a year, to which the HeliconHeart service makes a significant contribution.

By facilitating care between community staff and hospital specialists, the system has enabled the Whittington Hospital to transfer more than 600 patients over the last few years from the more inconvenient and expensive hospital service to a local GP or community pharmacy service, while still being able to remotely monitor their quality of care.

**"Helicon Health is a UCL spinout company delivering digital health solutions to improve long term disease management. UCLB has been enormously helpful in this process, providing practical support to enable us to become progressively more independent and self-sustaining. We particularly appreciate the involvement of Cengiz Tarhan on our board, his enthusiasm and wise guidance on a huge range of issues."**



Professor David Patterson
CEO Helicon Health

## 2007

Software at heart of EHR **achieves standard ISO EN 13606**. UCL places the standards-based EHR at the heart of **unique stroke prevention service.**

## 2008

The service goes into **full clinical use** at Whittington Hospital, North London.

## 2012

Helicon Health is **spun out of UCLB** and the software at the heart of the stroke prevention package is branded **'HeliconHeart'.**

## 2013

Helicon Health collaborates with UCL to develop **patient self care elearning**. Customer base continues to grow

## 2014

**Partnership with InHealthcare** gives customers access to affordable self-monitoring systems enabling patient data from HeliconHeart to be integrated within GP clinical systems.

## TODAY

HeliconHeart is **now being used** by a growing number of NHS clinical commissioining groups across London and the South East.

**Birth asphxia is the fifth leading cause of child deaths globally**

## BioMedical Sciences, Licensing Technologies

## Chiesi

For businesses seeking specific technology solutions, UCLB provides the commercial expertise, legal advice and administrative support required to broker licensing agreements, allowing companies to fully exploit unique technologies with the knowledge that exclusivity and market advantage is preserved.

Through UCLB, academics wishing to license technologies have access to comprehensive support services, with business managers assisting throughout the process from initial negotiation to concluding contracts.

The Chiesi Group and UCL are collaborating to test a novel melatonin formulation as a brain protective medicine for babies who suffer birth asphyxia.

Melatonin is a natural hormone that is mainly secreted at night. In pharmacological doses, it can protect the baby's brain from damage. Chiesi is responsible for the development of a melatonin formulation suitable for neonatal use and for development of the product, including the clinical trial programme.

Dr Chris Williams, a Senior Business Manager in the Biopharm team at UCLB, supported the collaboration between Chiesi and UCL, working closely with the academics to broker a deal granting Chiesi access to specific research knowledge developed by Professor Nicola Robertson, a renowned expert in the field of neonatal neuroscience and neuroprotection and Professor Xavier Golay, an expert in the field of physiological MRI and image-based biomarkers.

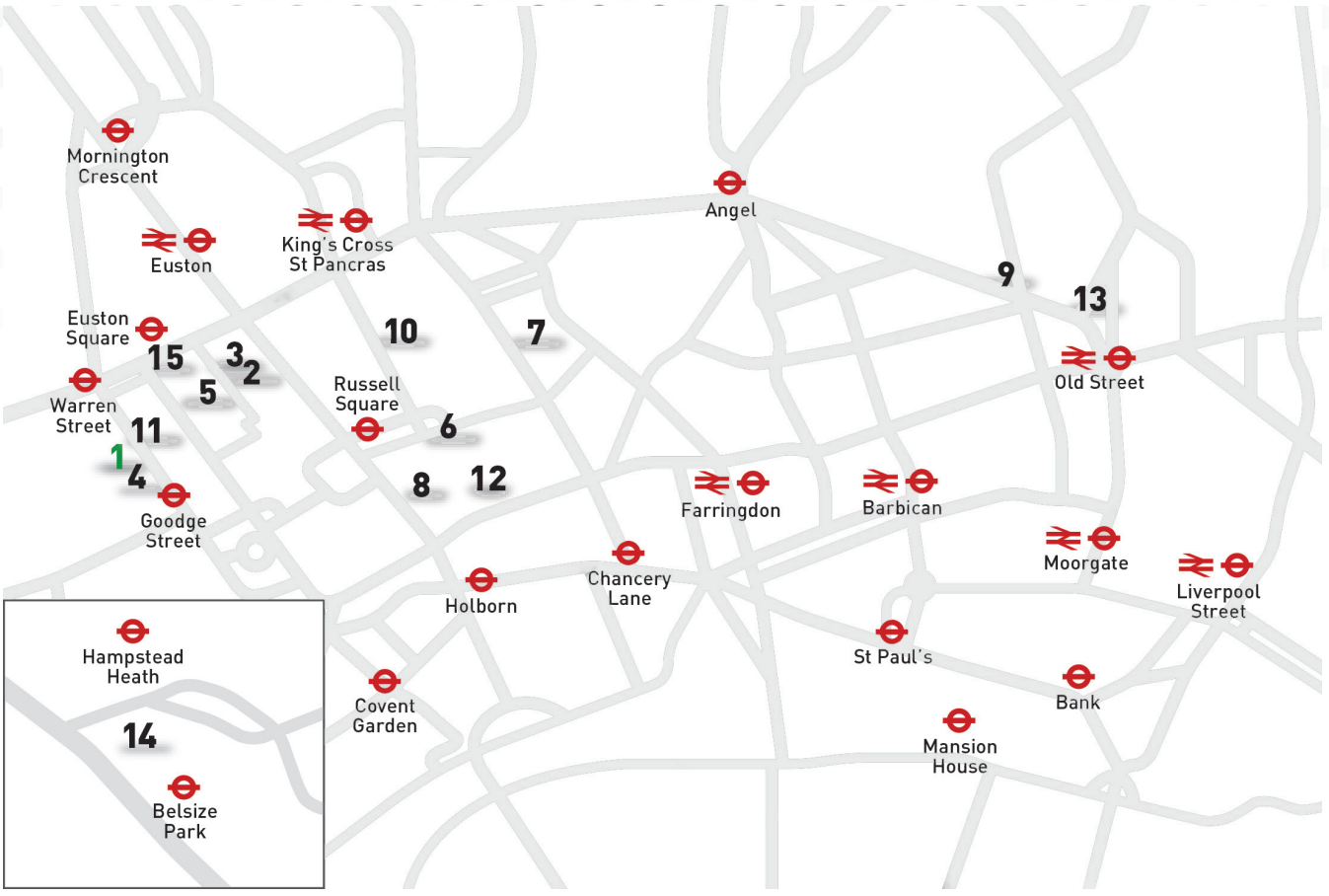
Birth asphyxia, a clinical condition caused by temporary interruption of blood flow to the brain at the time of birth, is the fifth leading cause of child deaths globally. The disability burden as children mature includes cerebral palsy, epilepsy and cognitive, hearing, language and speech impairments.

Using his knowledge and experience Dr Williams supported approaches to traditional funding, eventually securing funding directly from Chiesi. Liaising with the academics, Dr Williams lead contract negotiations to ensure a relationship between academia and industry was developed.

The UCLB legal team, along with UCL Research Services, provided their expertise to coordinate a licensing deal and research contract around the intellectual property.

Dr Williams continues to support the academics, monitoring the projects and liaising with Chiesi to ensure both parties are actively working together to ensure the continued development of this project, and to maintain a positive business relationship with Chiesi.

# FIND OUT MORE




## Locations

1. **UCL Business PLC**
2. UCL Enterprise
3. UCL Advances
4. UCL Consultants
5. University College London (UCL)
6. UCL Institute of Child Health
7. UCL Eastman Dental Institute
8. UCL Institute of Neurology
9. UCL Institute of Ophthalmology
10. UCL School of Pharmacy

## Partner Hospitals

11. UCL Partners
12. Great Ormond Street Hospital for Children
13. Moorfields Eye Hospital
14. Royal Free London
15. University College London Hospitals

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# FINANCIALS

## UCLB
## Balance Sheet

| | (£'000) |
|---|---|
| **Fixed assets** | |
| Tangible assets | 159 |
| Investments* | 5, 635 |
| | **5, 794** |

| | (£'000) |
|---|---|
| **Capital and reserves** | |
| Called up share capital | 8, 412 |
| Profit and loss account | - 101 |

| | |
|---|---|
| **Current Assets** | |
| Debtors | 3, 803 |
| Cash | 1, 328 |
| | **5, 131** |

| |
|---|
| **Creditors: amounts falling due withing one year** |
| -2, 614 |

| |
|---|
| **Net current assets** |
| 2, 517 |

| |
|---|
| **Net assets** |
| 8, 311 |

| |
|---|
| **Sharedolders' funds** |
| 8, 311 |

*Investments held as fixed assets are stated at cost less any impairment in value. During the year the key UCLB projects represented by equity interests in spin outs expected milestone and royalties on licensed products and those in development, were valued using a risk adjusted net present valuation model.

Based on that information, the UCLB Board is comfortable that the value of assets managed by UCLB lies in the range of £100 million to £120 million.

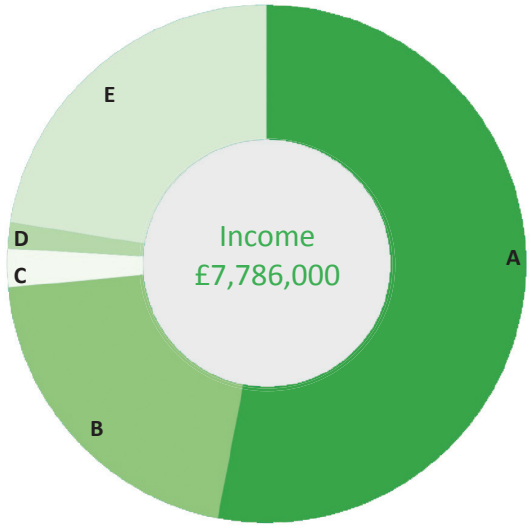
# UCLB
# Group Activity

## Summary results

| | (£'000) | (£'000) |
|---|---|---|
| | **2013/14** | **2012/13** |
| Income | 7, 786 | 9, 330 |
| Expenditure | 6, 357 | 8, 651 |
| **Profit before gift aid to UCL** | **1, 429** | **679** |

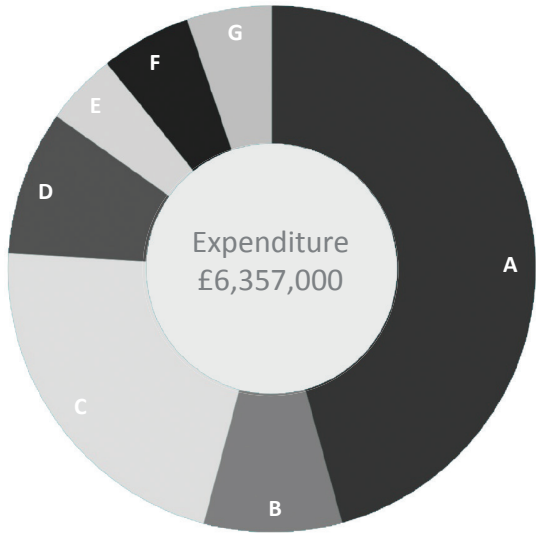
## Income analysis for 2013/14

| | | (£'000) |
|---|---|---|
| A | Royalties and intellectual property income | 4, 128 |
| B | Services to UCL | 1, 597 |
| C | Research and Proof of Concept funding | 187 |
| D | Interest | 126 |
| E | Other | 1, 748 |
| | | **7, 786** |




## Expenditure analysis for 2013/14

| | | (£'000) |
|---|---|---|
| A | Staff costs | 2, 905 |
| B | Research and consultancy | 538 |
| C | Patent costs | 1, 384 |
| D | Premises | 564 |
| E | Other | 283 |
| F | Distributions to academics and inventors | 352 |
| G | Distributions to UCL | 331 |
| | | **6, 357** |




The above figures include those of UCL Business PLC and companies administered by UCL Business PLC, including UCL Cruciform Ltd and Pentraxin Theraputics Ltd.

**UCL Business PLC**

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