



Impact



UCLB: 30 years of turning
world-changing ideas
into impact

4-5	6-9	10-11	12-13	14-17	18-21	22-26
UCLB IN STATS	IT'S IN OUR GENES	30 YEARS OF UCLB	COVID CHALLENGE	TECH SPOTLIGHT	SOCIAL VENTURES	UCLB IN FOCUS
Measuring the impact of UCLB.	UCLB reveals its genetic therapy success stories.	The highlights of UCLB's 30 years.	Case Study: how a breathing device was fast tracked to help with COVID-19 efforts.	Tech evolution Examining advances in breast cancer staging and remote condition monitoring.	Two of UCLB's social ventures, commercialising ideas for positive change.	UCLB outlines its offerings and achievements.



At its heart, everything we do boils down to impact

For 30 years, UCLB has been putting great ideas in the spotlight. In 2023, following the publication of the *University Spinout Investment Term Guide* and a positive government Spinout Review, UCLB is now more poised than ever to make a transformative impact.

The environment wasn't always this fertile. In the early nineties, when UCLB was first created, and I was at UCL as a British Heart Foundation postdoc, technology transfer wasn't part of the culture – few people knew about it, and some viewed it with suspicion. But academics have always wanted to get their ideas out into the world, where they can make a difference. As the early successes started to prove their value, interest grew exponentially. In turn, UCLB itself has grown and transformed to match the scale of demand and ambition.

At its heart, everything we do boils down to impact. Throughout the UK, and in many cases the world, UCLB can measure its success in lives changed for the better by UCL's outstanding innovators. That includes supporting pioneering medical research from lab to market, where it can benefit patients: such as the first-ever 'one shot' potentially curative gene therapy treatment for haemophilia A (BioMarin's 'ROCTAVIAN') which I am proud to say was approved for use in the USA in 2023.

Alongside our excellent track record in life sciences, UCLB is increasingly growing its track record of success in engineering and physical sciences. Two of our spinouts, Senceive and Satalia, achieved significant exits through

acquisition by successful multinationals. And two cleantech spinouts – hydrogen fuel cell innovators Bramble Energy and decarbonisation AI platform Carbon Re – were bolstered by successful fundraises. Like UCL's academic entrepreneurs, UCLB has itself been an innovator in its field. We were among the first to offer support to social ventures, which are now benefitting from a cross-institutional fund, led by Queen Mary University of London and UCL.

Meanwhile, new agile IP commercialisation models like Portico Ventures create a fast route to market for technology-based businesses. And the UCL Technology Fund has raised more than £120m to support outstanding innovation, helping to grow UCL's impact.

UCLB's success is underpinned by a skilled and dedicated team. Our business managers work in partnership with researchers across UCL, supported by a wider team of professionals who advise on everything from legal, to project management and marketing.

Everything that UCLB has achieved has been through collaboration. So, the final word of thanks must go to all of the many people who have made possible three decades of success – our talented UCLB team, expert investors and partners, and of course the inspiring UCL community.

Here's to another 30 years of turning ideas into impact.

Dr Anne Lane
CEO, UCLB

Impact



UCLB's website

Why we exist

Impact is at the heart of what we do, and the numbers help tell our story.

UCLB exists to transform ideas into enterprise – with global impact. We make sure that exceptional innovations generated by researchers at UCL, its collaborators and associated hospitals, make a real-world difference: helping to improve life for millions of people around the UK and beyond, whilst bringing revenue back to the university to fund more pioneering work.

We do this by identifying and protecting promising new technologies, and by using our expertise and experience to establish funding partnerships, licensing deals and spinout companies to bring them to market.

This issue of **Impact** presents highlights of our work over the past year, and reflections on UCLB's achievements as we celebrate the milestone of our 30-year anniversary.

Our success belongs to the UCL community, and our impact reflects the incredible depth, diversity and quality of the university and its research.

From climate change to rare and chronic diseases, UCL's academic entrepreneurs are tackling the world's unsolved problems and creating knowledge with the potential to benefit our global economy and society. UCLB's expert team unlock this treasure trove of knowledge so that it can be shared with everyone.

Thank you for your interest in our work.

Our mission

As drivers of innovation, we use our expertise to commercialise the exceptional ideas of UCL researchers, to benefit society and the economy.



It's in our genes

How our world-class gene therapy portfolio is transforming lives.



Genetic therapy is among the great innovations of our age, and in 2023, significant progress was achieved by several UCLB spinouts and licensees. Notable among these was BioMarin Pharmaceutical's ROCTAVIAN, which treated its first individual with severe haemophilia A in Germany.

In 2021, Achilles Therapeutics became the fifth UCLB gene therapy spinout to list on the NASDAQ in just three years. It followed MeiraGTx, Orchard Therapeutics, and Autolus Therapeutics, all of which completed successful initial public offerings (IPOs) in 2018 and Freeline Therapeutics, which closed its offering in 2020.

UCL's clinical innovation environment is grounded in a 'bench to bedside' approach that sees many leading researchers working closely with UCL's associated hospitals, often holding joint appointments. A stable of highly-successful gene therapy spinouts, not least the five NASDAQ-listed companies, perfectly illustrate this translational synergy.

FIVE IPOs HAVE RECEIVED COLLECTIVE EXTERNAL INVESTMENT OF OVER

£2BN

UCLB'S NASDAQ-LISTED SPINOUTS ARE CHANGING LIVES AND BRINGING NEW HOPE TO CANCER PATIENTS AND PEOPLE WITH GENETIC DISORDERS ACROSS THE GLOBE.



14

GENE THERAPIES IN CLINICAL DEVELOPMENT OR WHICH HAVE RECEIVED REGULATORY APPROVAL.



Orchard Therapeutics, which is pioneering gene therapies for rare childhood conditions, began life at UCL's Great Ormond Street Hospital (GOSH). Desperate for better treatments to help children coming to the hospital with rare and devastating genetic disorders, Professors Bobby Gaspar and Adrian Thrasher developed new haematopoietic stem cell therapies, building on cutting-edge scientific discoveries. Clinical trials, led by UCL's Institute of Child Health and GOSH, are now helping to make life-transforming and curative treatments widely available to patients around the world.

Orchard's IPO on NASDAQ in 2018 raised **\$225m** (£173m), and it now employs nearly **250** people globally, with a presence in London and Boston.

Total raised at IPO and post IPO: \$721.5m



"This will accelerate our shared vision of ending the devastation caused by severe genetic diseases"

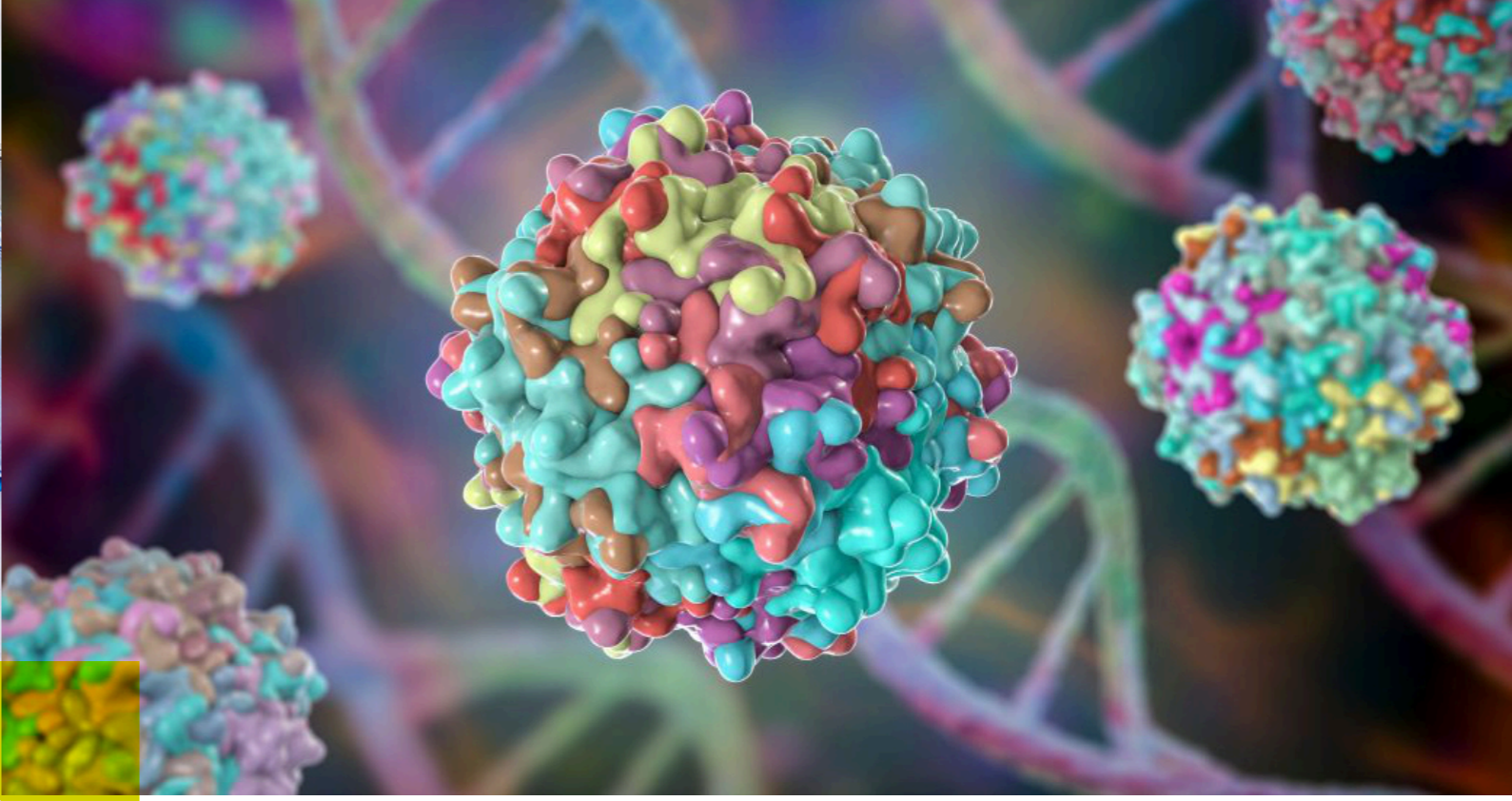
Professor Bobby Gaspar
Co-founder and CEO, Orchard Therapeutics



Breakthrough immunotherapy cancer treatments from Autolus Therapeutics are offering hope to cancer patients who previously had few or no treatment options. Dr Martin Pule, one of the leaders of the 'CAR-T' programmes at UCL's Cancer Institute, is playing a pivotal role in bringing revolutionary cancer treatments from the laboratory to the clinic. Autolus' next-generation technologies are being used to treat patients with leukaemias and lymphomas which have failed to respond to standard anti-cancer treatments, as well as holding promise in the treatment of solid tumours.

Following Series A investment from Syncona, an IPO on NASDAQ in June 2018 raised approximately **£160m** in net proceeds.

Total raised at IPO and post IPO: \$921.6m



FREELINE

Freeline Therapeutics' innovative liver-directed gene therapies for Fabry disease and Gaucher disease are rooted in the dual role of Professor Amit Nathwani, working between UCL's Cancer Institute and the Royal Free London NHS Trust. The technology uses a virus vector to get functional copies of the missing or mutated genes directly into a patient's cells. Newly-synthesised proteins are then released into the tissues or blood. These one-time treatments are already changing the lives of people with debilitating chronic diseases.

External investments, including an IPO on the US NASDAQ stock exchange in 2020 that raised **\$158.8m**, have enabled the company to set up a manufacturing facility, alongside its R&D laboratories in Stevenage.

Total raised at IPO and post IPO: \$219.9m



Another UCLB spinout making an impact in the fight against cancer, Achilles Therapeutics, has brought together world-leading expertise in tumour sequencing and immune response to develop a new type of personalised treatment. Founded in 2016 on research carried out by Professors Karl Peggs, Mark Lowdell, and Sergio Quezada from UCL, and Charles Swanton from UCL and the Francis Crick Institute, Achilles has made rapid progress in developing treatments which involve finding and amplifying a patient's own T-cells to fight cancer. Therapies for lung cancer and melanoma are already in the clinic, as well as several new indications in the pipeline.

Their NASDAQ listing in April 2021 raised **\$175.5m**, and the company now employs around **200** people in the UK and US.

Total raised at IPO and post IPO: \$176m



Gene therapy company MeiraGTx is developing potentially curative therapies for inherited eye disease based on research carried out at UCL's Institute of Ophthalmology. X-linked retinitis pigmentosa (XLRP) is one of the diseases with greatest patient need, with no treatments currently approved for the condition. MeiraGTx's origins date back to the founding of UCLB spinout company Athena Vision in 2015, formed to develop and commercialise ocular gene therapy programmes arising from research conducted by Professor Robin Ali, Head of the Department of Genetics at the UCL Institute of Ophthalmology.

Their NASDAQ IPO in 2018 raised **\$75m**, and MeiraGTx now employs over **250** people at their head office near Moorfields Hospital and nearby state-of-the-art GMP-licensed facility.

Total raised at IPO and post IPO: \$274.3m

NUMBER OF PEOPLE MEIRAGTX EMPLOYS

250

AMOUNT ACHILLES THERAPEUTICS RAISED IN ITS NASDAQ IPO IN 2021

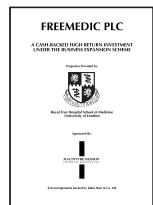
\$176M

“UCLB’s NASDAQ-listed spinouts are changing lives and bringing new hope to cancer patients and people with genetic disorders across the globe. That’s something we’re incredibly proud of, and it keeps us focused on getting the next wave of great innovations out into the world where they can make a difference”

Dr Anne Lane,
CEO, UCLB

1993 1994 1995 1996 1997 1998 1999 2000

Freemedic
Incorporation



SR Pharma plc
IPO

poly MASC
AIM listing

Sale of royalty rights for recombinant factor VIII



Merger of UCL and Royal Free Hospital School of Medicine



A R R W
founded

Ark
therapeutics
founded

Advanced Design Technology
founded

BioVex
founded

medic-to-medic
founded

mapofmedicine
founded

Spirogen
founded

2001 2002 2003 2004 2005 2006 2007 2008

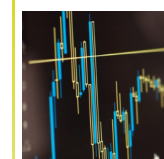
NOVARTIS Simulect
Royalties commence

domainex
founded

nce discovery
founded

Pilkington Activ™
self-cleaning glass developed

SYSTEMWIRE
founded



Ark
therapeutics
IPO

ucl biomedica
Name changed

Saphena
compression sock licensed to **Pretty Legs**

IONIX
acquisition by **Vernalis**

medic-to-medic
acquisition by **Informa PLC**

Xcellsys
acquisition by **Cambrex**

IXICO
founded

UCLB
Name changed

Senceive
Wireless condition monitoring
founded

SYSTEMWIRE
acquisition by **Message Automation**

endomag
founded

Euro Tempest
founded

inpharmatica
acquisition by **Galapagos NV**

A R R W
acquisition by **AstraZeneca**

Stanmore Implants
acquisition by **MDY Healthcare** and **Abingworth Management**

Ocera
Licence of a novel treatment for Hepatic Encephalopathy

Satalia
founded

Satalia
A WUNDERMAN THOMPSON COMPANY
founded

Launch of **English** grammar apps on the **Apple App Store**

2009 2010 2011 2012 2013 2014 2015 2016

e-lucid
prototype created

Launch of first UCLB-supported social venture

domainex
secures investment

CanBex
Therapeutics Ltd
secures investment

Pfizer
License to **Pfizer** stem cell treatment for AMD

BioVex
acquisition by **Amgen**

BD
Partnership to improve the early detection of ovarian and breast cancer

abcodia
founded

Chirp
founded

Space Syntax
Olympic ceremony



Ocera
achieves positive results from phase 2 trial

BiOMARIN
License of a novel gene therapy for haemophilia A

IXICO
IPO

Spirogen
acquisition by **MedImmune**

endomag
Series B financing

zinwave
acquisition by **McWane**

ABZENA
IPO

HeLP Digital
established

PURIDIFY
seed round financing

FREELINE
Series A financing

BRAMBLE
ENERGY
founded

Autolus
Series A financing

e-lucid
Platform adopted by UK TTOs

UCLTF
UCL Technology Fund 1 established

APOLLO
THERAPEUTICS
launched

Orchard
therapeutics
Series A financing

Health Social Innovators
Programme launch

2017 2018 2019 2020 2021 2022 2023

message AUTOMATION
acquisition by **Broadridge**

PURIDIFY
acquisition by **GE Healthcare**

Ocera
Phase 2b study

Cell Medica
acquires T-cell joint venture created by **UCLB & partners**

Autolus
IPO

Orchard
therapeutics
IPO

MEIRAGTx
IPO

endomag
Series C financing

HeLP Digital
adopted by the **NHS**

NOVALGEN
Series A financing

ACHILLES THERAPEUTICS
Series B financing

QuellTx
Series A financing

FREELINE
IPO

VENTURA
e-lucid platform supports rollout of breathing aid designs during COVID-19 pandemic

Chirp
acquisition by **Sonos**

UCLTF
UCL Technology Fund 2 established

ACHILLES THERAPEUTICS
IPO

APOLLO THERAPEUTICS
Series A financing

Senceive
Wireless condition monitoring
acquisition by **Previa**

Satalia
acquisition by **WPP**

BiOMARIN
ROCTAVIAN gene therapy for haemophilia A secures EU approval

Odin Vision
acquisition by **Olympus Medical**

Bloomsbury Genetic Therapies
launched

Re:infer
acquisition by **UIPath**

UCLB 30
YEARS

echopoint
Medical optical sensing platform starts clinical trials

3D REPO
acquisition by **Asite**

Orchard
therapeutics
secures \$188m financing

Autolus
clinical trial clears cancer for leukaemia patient

e-lucid
spun-out from UCLB

Rising to the COVID-19 challenge

UCLB's technology transfer experts helped to get a life-saving breathing device out to COVID-19 patients.

“More than 24,000 devices have benefitted patients in over 30 countries, including Pakistan, Peru and Uganda, saving countless lives”

Rising to meet global challenges is no small task. In 2020, the 'UCL-Ventura', a low-cost breathing aid, was developed by a team from UCL, UCLH and Mercedes-AMG High Performance Powertrains to help COVID-19 patients. Designs were made available via UCLB's innovative e-licensing platform, e-lucid, enabling rapid distribution around the world.

In March 2020, with the Coronavirus crisis escalating in the UK and a predicted shortage of ventilators making headline news, a team of UCL engineers, UCLH doctors and Mercedes-AMG High Performance Powertrains engineers came together to work on a breathing device that would reduce the number of COVID-19 patients who needed to be moved onto invasive mechanical ventilation.

Evidence showed that continuous positive airway pressure (CPAP) breathing aids could enable around

50% of COVID-19 patients to avoid the need for ventilation. With the core CPAP device designs being off-patent, efforts were made to reverse-engineer a CPAP device, and in just under **100 hours the UCL-Ventura was created**. Following successful testing, it gained special MHRA regulatory approval in **ten days** and, within a month, 10,000 units had been manufactured and supplied to the NHS.

As news emerged of the potential of the UCL-Ventura device, the project team were inundated with worldwide requests for the core device designs. This led the project team to start a discussion with UCLB about how they could get their life-saving technology into the hands of healthcare workers around the globe.

Marina Santilli, UCLB's Associate Director of Physical Sciences & Engineering, recalls the conversation with Rebecca Shipley, Professor of Healthcare Engineering at UCL, one of the UCL-Ventura team. "She said: 'Every day that we can't get these designs out, more people are going to die'. It really puts things into perspective - you drop everything."

The terms of a joint IP ownership agreement for the newly-created designs between UCL and Mercedes, and a free-of-charge licence for sharing the technology were created over a weekend. Meanwhile, a bespoke version of UCLB's innovative IP licensing system, e-lucid, was built to

24,000+
DEVICES MADE AND
USED ON PATIENTS IN
30 COUNTRIES

FREE-OF-CHARGE
LICENCES GRANTED IN
129
COUNTRIES

DEVICES USED IN OVER
130
NHS HOSPITALS



The CPAP device pushes an air-oxygen mix into the mouth and nose at a continuous pressure, keeping airways open and increasing the amount of oxygen entering the bloodstream. This reduces the need for invasive ventilation.



Free-of-charge licenses were granted for a lifesaving CPAP device.

manage the process for receiving and approving licence applications and distributing the design files.

Within **48 hours** of going live, the licensing platform received over **800** applications. At its peak, it was handling two applications a minute, helping to make the biggest possible impact in the fight against the virus, whilst ensuring a controlled release. Opt-in contact permission meant that the UCL-Ventura team could continue to support licensees with updates, and follow up with those developing and using the design files around the world.

More than **24,000** devices have been manufactured for use in over **30 countries**, including Pakistan, Peru and Uganda, saving countless lives.



Professor Rebecca Shipley and Professor Tim Baker, two of the UCL-Ventura team.

The journey to impact

We examine two UCLB spinouts which have delivered major commercial success and real-world benefits over the long term.



“Endomag’s Magtrace and Sentimag devices, used together, allow pinpoint precision in locating a magnetic marker”

Dr Eric Mayes
Chief Executive, Endomag



Endomag was founded in 2007 with a mission to develop a magnetics-based sensing solution which would make breast cancer staging procedures available on a global basis.

Endomag products are now routinely used by over **1,000 hospitals** in more than **45 countries**. Over **450,000** women have now accessed more precise and less invasive breast cancer treatment.

The company was created by Professor Quentin Pankhurst and Simon Hattersley from UCL, in collaboration with Professor Audrius Brazdeikis at the University of Houston and UCLB to capitalise upon a simple research idea: to use magnetic-based sensing to replace the need for radioactivity-based approaches when staging breast cancer through a procedure called sentinel lymph node biopsy.

Sentinel lymph node biopsies are used to determine whether breast cancer has spread from the primary tumour site into the lymphatic system, which is an important staging decision in the treatment of the disease.

The previous standard of care used a gamma sensing probe and an injectable radio isotope – a procedure which required access to a nuclear medicine facility with resultant cost and usage constraints. Endomag’s approach replaces radioactive material with magnetic particles.



TECHNOLOGIES USED IN MORE THAN 1,000 HOSPITALS ACROSS THE WORLD

450,000 PATIENTS HAVE BENEFITED

ONE PATIENT TREATED EVERY FIVE MINUTES



Endomag's Sentimag device.



Endomag technology being used in breast cancer surgery.

The Magtrace magnetic injectable and Sentimag magnetic sensing device developed by the company allow pinpoint precision in locating the lymph nodes and importantly are much easier for a hospital to access than radioactive solutions.

Further innovation by the company led to the development of a new solution for accurately marking the site of early-stage breast cancer tumours.

These tumours, often only a few millimetres in size, can be challenging for surgeons to find. Until recently, the procedure for marking their location was relatively primitive: “basically a fish hook on a wire,” according to Endomag Chief Executive Dr Eric Mayes. Endomag’s innovation, the Magseed, is a tiny

metal seed around the size of a grain of rice, which is implanted in the tumour under image guidance, located using the Sentimag probe, and removed during surgery.

The Magseed’s small size and twisted structure means it is unlikely to move after implantation, reducing follow-up surgeries and having significant patient comfort benefits compared to wire-based approaches.

A clear focus on clinical impact has helped the company to grow from an academic research project into a global company, says Eric. “Our mission at Endomag is all about helping clinicians to solve their challenges. We’re proud to be playing a part in developing products that improve outcomes and experiences for cancer patients around the world.”

Protecting valuable infrastructure assets

Remote monitoring can be vital in difficult-to-access environments.



Senceive Ltd, a spinout from the Department of Electronic & Electrical Engineering at UCL was founded to commercialise innovative wireless sensor networks technology. Over a **15+ year** journey, the company's FlatMesh wireless-enabled remote condition monitoring solutions found widespread application across the geotechnical and railway industries and led to the company's acquisition in 2021.

The first in its field

Senceive has been singularly focused on using highly innovative mesh-based wireless remote condition monitoring technology to provide instrumentation solutions for civil engineering and rail applications. The company's longevity is significant for two reasons: it was the first in its field to recognise the immense potential of wireless-enabled monitoring to keep people and infrastructure safe, and secondly, through hundreds of practical deployments, it has had ample time to learn and evolve into the most established, respected, and trusted provider in the market today.

The company's precise, reliable and robust products directly reflect the specific demands of civil engineering, rail and mining environments and empower those responsible for infrastructure construction and maintenance to proceed with confidence, keeping people and assets safe.

One of the keys to the success of Senceive was the commitment of Graham Smith, the company's CEO from 2009 until its acquisition, who had the desire to translate a promising technology platform into a solution that could satisfy unmet needs in commercially significant market areas.

"The journey was long, intense and at times highly uncertain as the company sought to achieve the product/market fit that would eventually drive widespread adoption and often with limited funds due to challenges accessing traditional forms of investment capital," says Graham.

However, by late 2020, the clear technical and commercial benefits of Senceive's technology coupled with the company's exceptional customer service had resulted in a company which was growing fast both from a turnover and profitability perspective.

Importantly, Senceive had developed a global client base with solution deployments in over **40 countries** and had recruited a team of **60+ people** based in the UK, Australia and the USA with deep technical and commercial skills. These factors led to the company's acquisition by Canadian industrial technology group Previa (previously Eddyfi/NDT) in April 2021.

REMOTE SOLUTIONS REDUCE CUSTOMERS' COSTS BY UP TO **80%**

EMPLOYS **80** PEOPLE AND OPERATES IN **40** COUNTRIES

COMPANY ACQUIRED IN APRIL 2021



Senceive provides wireless solutions for railtracks, earthworks and structures.



Senceive technology protecting heritage buildings: the Tower of London.

"We worked closely with the Senceive management team throughout the spinout company journey, providing a broad range of technology commercialisation expertise together with investment capital. It was hugely impactful translating a promising early-stage technology into a robust and scalable monitoring solution that found application in major infrastructure projects, such as Crossrail and HS2, and resulted in a very strong exit outcome in April 2021"

Dr Steven Schooling
Director of Physical Sciences and Engineering, UCLB

Commercialising ideas for positive change

Social ventures play a vital role in driving societal impact. Two UCLB projects are combining science and the arts to drive change.



UCL academic Onya McCausland was inspired to develop a unique and innovative range of paints using waste residue from polluted mine water. With the support of UCLB's social ventures offer, she has helped former mining villages connect with their heritage.

Visiting former mine sites whilst studying for a PhD at UCL's Slade School of Fine Art, Onya McCausland encountered water treatment schemes for polluted water from decommissioned coal mines. She discovered that the process leaves behind an iron-rich sludge which can be turned into ochre pigment, sparking a journey which has led to the creation of a world-first paint and a community interest company delivering real social impact.

POLLUTING OCHRE WASTE TURNED INTO WORLD-FIRST WALL EMULSION AND ARTISTS' OIL PAINTS

PROFIT FROM PAINT SALES REINVESTED BACK INTO THE LOCAL WELSH COMMUNITY

WORKSHOPS PROVIDING OPPORTUNITIES TO DISCOVER AND EXPLORE LOCAL HERITAGE

“Residents in Six Bells have been very engaged with the project”

Onya McCausland
Leverhulme Early Career Research Fellow, Slade School of Fine Art, UCL

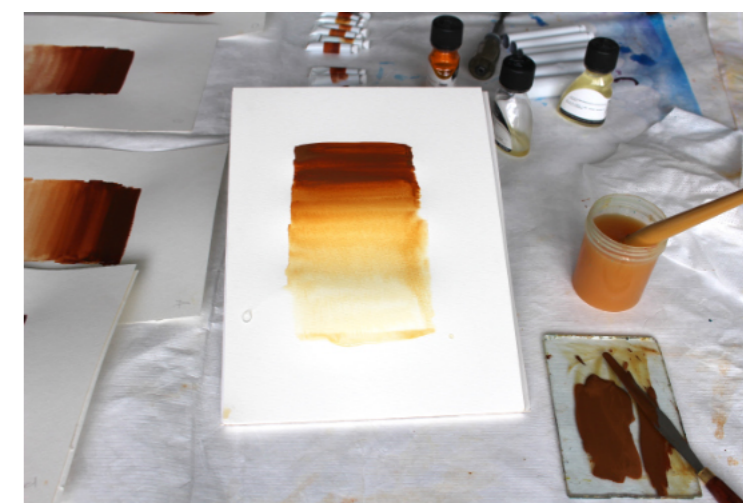
Working with an interdisciplinary team that included scientists from UCL, the UK Coal Authority, and paint manufacturers, Onya overcame technical challenges to create the first ever mineral-based exterior grade wall emulsion, and a limited-edition range of artists' oil paints.

UCLB worked with Onya to assess opportunities, working closely with stakeholders to secure proof-of-concept funding to develop a commercial model. They continue to play an important advisory role.

Residents in the former mining village of Six Bells in Wales have been very engaged with the project, which has helped to connect people with their cultural, social and industrial history.



Six Bells Red is the first mineral-based paint using recycled residues from the treatment of mine water. The paint connects colour and place, creating a unique link with the landscape and its history.



Scenes from Onya's studio (above and right)

(left) Six Bells Monochrome Wall Painting, by Onya McCausland
Five Colours, Five Landscapes, at North Cloisters, UCL 2018



Giving kids a healthier start

Scientific evidence can play a vital role in establishing healthy habits for life. That's why academics from UCL's Institute of Child Health collaborated with a team of health professionals to develop a healthy lifestyle programme shown to be effective in the prevention and management of obesity in pre-school children.

Obesity is a growing problem with around **39 million** children under five years of age worldwide currently classified as overweight or obese. Children who are overweight or obese in early childhood are more likely to become overweight as adults, putting them at higher risk of heart disease, diabetes and certain cancers in later life. Overweight children may also suffer from low self-esteem and have a poorer quality of life.

Dr Julie Lanigan and Professor Atul Singhal from the Childhood Nutrition Research Centre, UCL Institute of Child Health, worked with a team including dietitians, paediatricians, physical activity professionals and clinical psychologists to develop TrimTots - a healthy lifestyle programme for preschool children and their families.

Designed to help parents and carers of young children to develop the knowledge and skills needed to establish healthy dietary and activity patterns and lead a healthy lifestyle, TrimTots uses a creative, child-friendly approach.

Weekly two-hour sessions over 24 weeks run as a series of interactive workshops including art, music and movement, a healthy snack, adult nutrition education and children's play-based physical activities.

In 2015, with support from UCLB, TrimTots was spun out as a community interest company (CIC). The following year it was accepted onto the Health Social Innovators' accelerator programme, a unique partnership between UCLB, Numbers for Good and Trafford Housing Trust, with backing from the Cabinet Office's Social Incubator Fund, with additional social investment secured at programme-end.

TrimTots has been successfully delivered in 11 centres and is the only evidence-based programme shown to be effective in the prevention and management of obesity in pre-school children. Importantly, unlike other obesity interventions, long term follow-up two years after completing TrimTots found a sustained BMI reduction for children who took part.

LONG TERM FOLLOW-UP FOUND A SUSTAINED BMI REDUCTION FOR CHILDREN WHO TOOK PART

SUCCESSFULLY DELIVERED IN

11 CENTRES

TRIMTOTS IS THE ONLY EVIDENCE-BASED PROGRAMME EFFECTIVE IN THE PREVENTION AND MANAGEMENT OF OBESITY IN PRESCHOOL CHILDREN

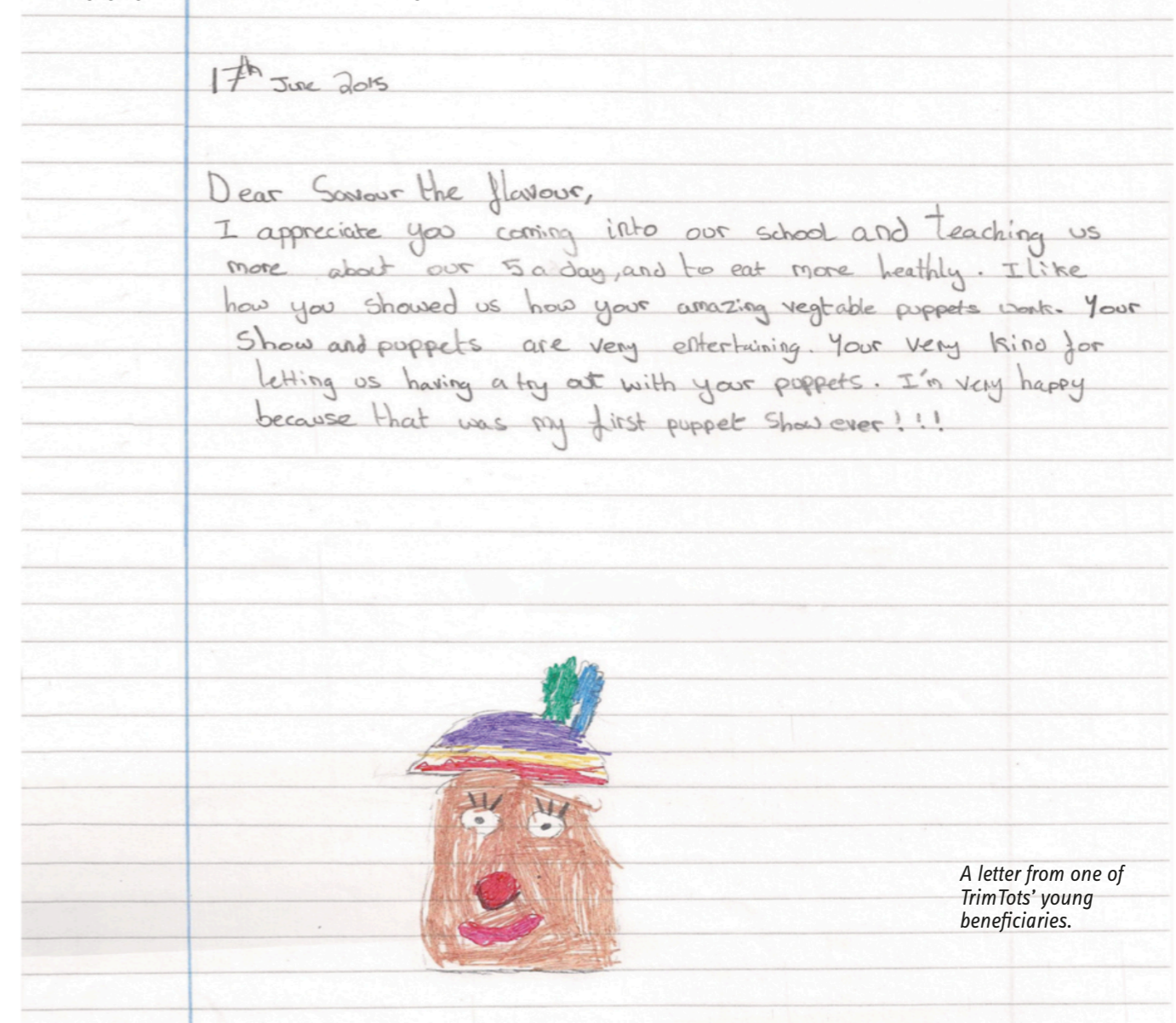


“TrimTots is a marriage between art and science that is entertaining for both adult and child”

Dr Julie Lanigan
Co-founder and Director, TrimTots



TrimTots' team engaging audiences with creative learning.



A letter from one of TrimTots' young beneficiaries.

Financing impact

Part of UCLB's support involves providing bespoke funding solutions to bring ideas to market. Here are some of the ways we can help.

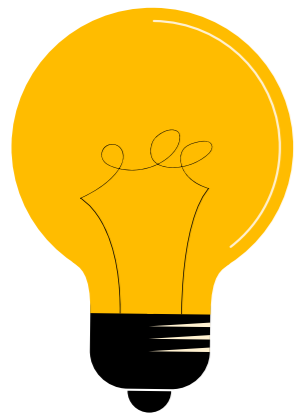


Funds available via UCLB

PoC funding

Commercial Proof-of-Concept (POC) Funding

Funds to support the pre-commercial evaluation and development of UCL IP or technologies with commercial potential.



AWARDS UP TO
£75k

TYPICAL PROJECT TIMELINE OF

6-9 MONTHS

UCLB Seed Investments

UCLB is now able to make seed investments into promising UCL spinout companies that fall outside of the investment criteria for the UCL Technology Fund.

WE ANTICIPATE
INITIAL INVESTMENTS
UP TO

£250k

AND EXTERNAL
INVESTORS SUCH AS
BUSINESS ANGELS
AND HIGH-NET-
WORTH INDIVIDUALS



Social Ventures Proof of Concept (POC) Fund

The Social Ventures POC Fund provides funding and support for UCL researchers who want to commercialise their research for societal benefit.

UP TO
£20,000
IN FUNDING FOR
SOCIAL VENTURES
EMERGING FROM UCL
RESEARCH



ACCESS TO BUSINESS
PLANNING SUPPORT
AND IP ADVICE



UCL Technology Fund

The UCL Technology Fund (UCLTF) is an early-stage technology investment fund managed by AlbionVC in collaboration with UCLB. The offering includes:

- POC projects – funds to support the pre-commercial evaluation and development of UCL IP or technology.

AWARDS UP TO
£200k



- Developmental funding into therapeutic licensing projects:

PROJECT FUNDING BETWEEN
£500k-£2M
TO ENABLE UCL PROJECT TEAMS TO
COMPLETE PRE-CLINICAL WORK

- Spinout companies - equity investment at Seed and Series A:

POTENTIAL TO INVEST
UP TO
£5M
TYPICALLY VIA
MULTIPLE FUNDING
ROUNDS



Funding from UCL Research, Innovation & Global Engagement

The Office of the UCL Vice-Provost (Research, Innovation & Global Engagement) funds projects across a wide range of UCL activities. These include:

- Global Engagement funding schemes support UCL staff from all disciplines and departments to develop collaborations with international partners.
- Grand Challenges funding, which supports cross-disciplinary collaborations that address societal problems.
- Innovation & Enterprise funding to support projects from all disciplines and departments.
- The UCL SDGs Initiative to maximise the university's impact on the UN Sustainable Development Goals (SDGs).
- Public Engagement funding schemes to support projects that advance the practice and culture of public and community engagement within UCL.



UCLB's 30th year: at a glance

UCLB celebrated a successful 2023, featuring some landmark moments and a strong financial performance.

UCLB continues to be a high performing, world-leading TTO, offering innovative value adds ranging from enterprise development initiatives such as I/O Labs and Mentors at UCLB, through to access to PoC and seed funding in order to advance the commercialisation of projects. UCLB's opportunity pipeline, which arises from many years of investment by UCL & UCLB, is now enabling the company to achieve a highly

sustainable financial operating model which will continue to deliver benefits across our stakeholder base. It also will allow UCLB to grow its ambitions, and support an ever expanding range of opportunities arising from UCL's diverse research base, unlocking ever greater societal impact and income generation outcomes.



2022/23 Performance



£300m

Value of assets.

£14.6m

2022/23 turnover.



102

Inventions disclosed.



49

New patents filed.



£3.1m

Licence fees, milestones and patent recoveries.

£3.2m

Royalty income.

55

Licence deals done.



2023 was a productive one for UCLB, with highlights including: celebrating 30 years of UCLB in UCL's Portico building (main); hosting a roundtable discussion on AI with the UK House of Lords Communications & Digital Committee at the UCL Centre for Artificial Intelligence (lower left); a visit from The Chancellor of the Exchequer Rt. Hon. Jeremy Hunt MP to launch the Independent Review of University Spinouts at UCL East (above left); bringing academics and potential business partners together at the inaugural IP4U conference (above).

FINAL THOUGHTS



At the forefront of real-world impact

UCL research and innovation seeks to address some of the greatest challenges facing the world. Our vision is to maximise the positive impact for the world of all those incredible ideas and innovations, across every discipline from biomedical science to engineering, computational and physical sciences, and in the arts and humanities.

UCLB's work is at the heart of that vision, providing and connecting the expertise, funding and impetus to turn brilliant responses to the climate crisis or big data or genetic disease into real products, medicines and companies that solve problems.

Professor Geraint Rees
Vice-Provost, UCL (Research, Innovation & Global Engagement) and UCLB Board Member

Julie Lanigan
Co-founder and Director, TrimTots CIC

“UCLB’s Social Ventures team were there at every step to assist us”



Onya McCausland
Turning Landscape



“It has been great knowing that UCLB have the expertise and experience to support me”



“UCLB provided a platform to turn our ground-breaking research into a viable commercial venture”

Dr Temitope Odedeyi
Founder, ASPIRE



“UCLB’s contribution has been essential to the shaping of this project and their continued advice and support has enabled successful company formation and operation”

Adrien Lemoine
Co-Founder & Chief Executive Officer, Bloomsbury Genetic Therapies

“It's simple. Without UCLB, Satalia would not have happened”

Dr Daniel Hulme
Founder and CEO, Satalia



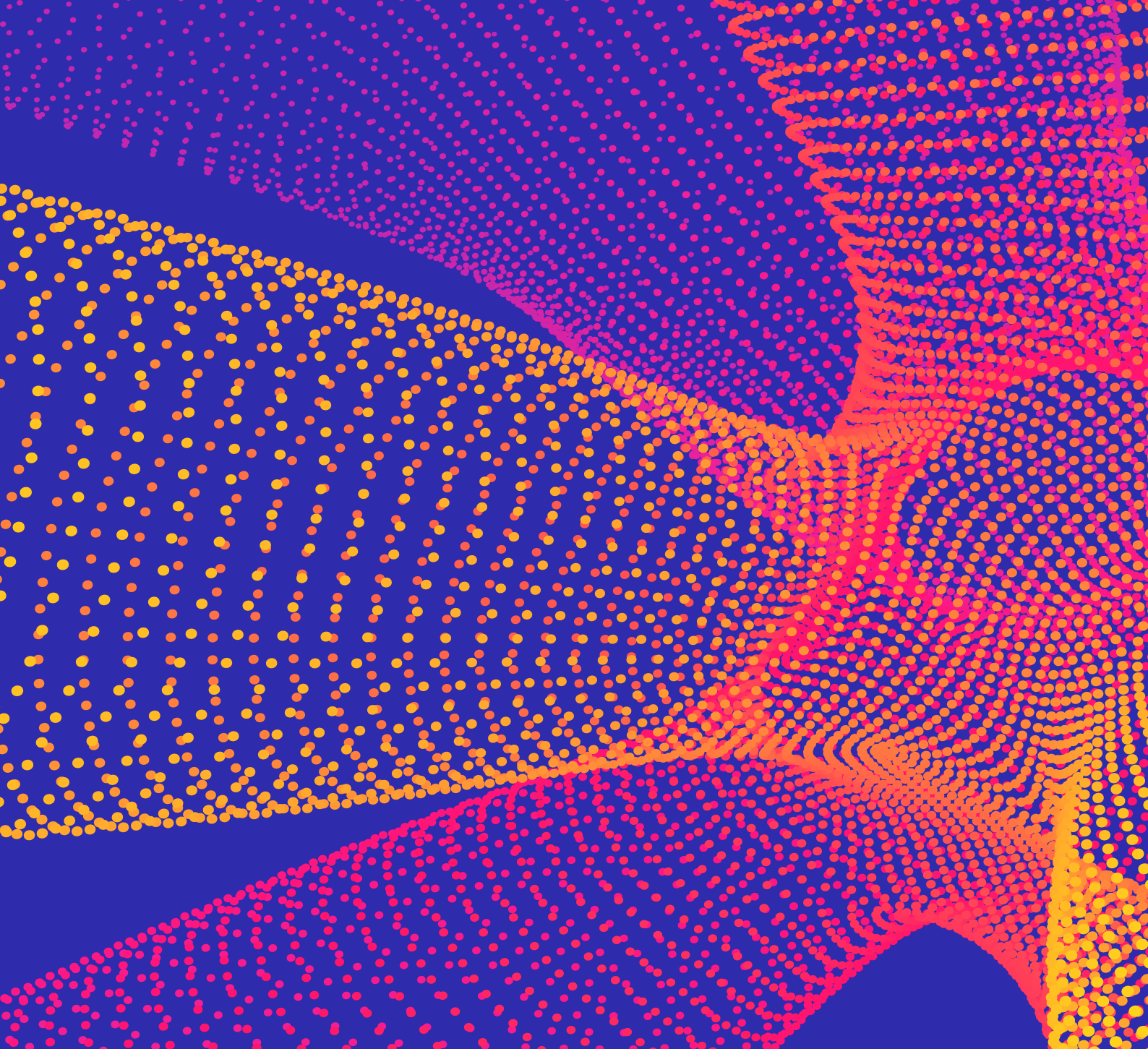
“UCLB is brilliant at leveraging its extensive network to support startups”

Buffy Price
Interim CEO and Co-founder, Carbon Re

“UCLB has been a part of the journey of taking academic research and translating it into early-stage practical clinical usage”

Antony Odell
Co-founder, CEO and Exec Chair, Echopoint Medical





UCL Business Ltd (UCLB), is a wholly owned subsidiary of UCL (University College London). Working with UCL's world-renowned faculties and associated hospitals, it brings together exceptional ideas, innovations and industry to benefit society and the economy.



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