



# Spin-Out Company Portfolio

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University of Nottingham has made every effort to ensure that the information in this brochure is accurate at the time of printing. The most up to date information can be found on the individual company websites listed in this brochure.

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## Our spin-out company portfolio

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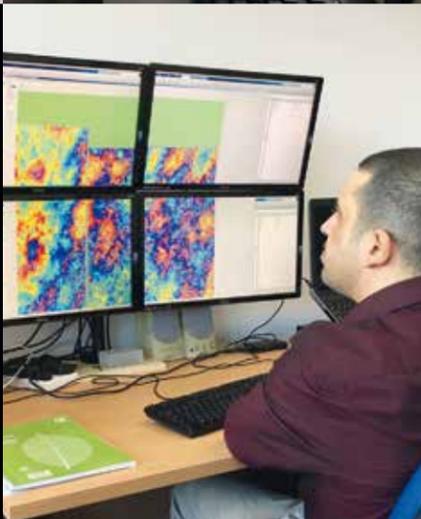
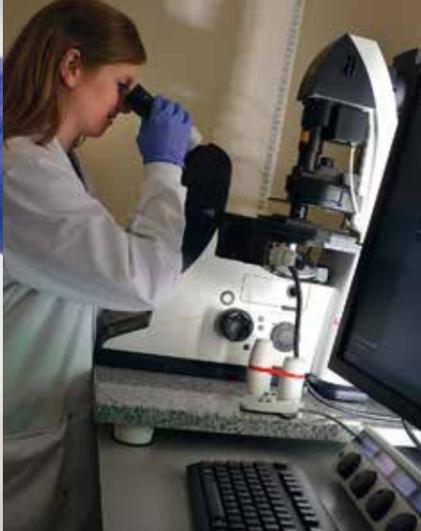
Our purpose is to improve life for individuals and societies worldwide.

Through bold innovation and excellence in all we do, we make both knowledge and discoveries matter. ”

*Jessica Corner*

Professor Dame Jessica Corner

Pro-Vice-Chancellor for Research and Knowledge Exchange





Professor Barrie Hayes-Gill, Faculty of Engineering, has founded two spin-out companies: Monica Healthcare Ltd and SurePulse Medical Ltd

“  
The formation of two spin-out companies has enabled our technology to reach and benefit the lives of so many mothers and babies around the world.

It has been a challenging, but worthwhile journey that I would be eager to repeat and I encourage all of my colleagues to follow this highly rewarding path.”



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## Locate Therapeutics Ltd



2001 – Regenerative medicine  
School of Pharmacy

Locate is based in MediCity and has developed a family of unique, thermally-activated, injectable scaffolds that solidify within the body and can be used to support tissue growth before degrading away.

Pipeline technology includes RMax, a thermo-reversible matrix, and IntraStem, a new delivery system for cells; technologies that can meet industry recognised needs to advance cell therapy markets such as transfection, genome editing and induced pluripotent stem cells.

[www.locatetherapeutics.com](http://www.locatetherapeutics.com)

The TAOS™ (Targeted, Orchestrated Signalling) technology is a world first in tissue repair and enables the precision focus of therapeutic signals from small molecule or biological actives at the site of repair. TAOS™ has many potential application sites across the body.



## Exonate Ltd

2014 – Drug discovery – wet AMD and cancer  
School of Medicine

Exonate develops and licenses **Vascular Endothelial Growth Factors (VEGF) control agents that may be used as therapeutics in areas such as pain control, macular degeneration and cancer.**

Competing injectable anti-VEGF-directed therapy currently constitutes the gold-standard treatment for wet Age Related Macular Degeneration (wAMD) and other neovascular diseases of the eye.

Exonate's research in this area has identified therapeutic candidates for wet Age Related Macular Degeneration that can be administered as a simple eye drop, thereby over-coming the unpleasant need for monthly injections in the eye.

[www.exonate.com](http://www.exonate.com)



## NuVision Biotherapies Ltd

2014 – Biotherapy  
School of Medicine

NuVision has developed a unique way to process and preserve amnion which can be applied to the surface of the eye to promote healing of 'front of eye' disease and trauma.

Omnigen® has further potential for use in human and veterinary treatments for conditions that feature chronic pain or inflammation, and flexible storage conditions potentially make it suitable for remote emergency treatment by military surgeons.

Prior to NuVision, cryopreserved amnion had to be stored in specialist facilities. Delivery of the amnion had to be within thawing time before surgery which is a constraint for the NHS and meant the treatment could only be used for scheduled surgery.

[www.nu-vision.co.uk](http://www.nu-vision.co.uk)

NuVision's first product, Omnigen® is a dry, sterile disc that does not require specialist storage conditions.



## SurePulse Medical Ltd

2014 – Medical device – newborn monitoring  
Faculty of Engineering

**SurePulse Medical is developing highly accurate heart rate measuring technology designed specifically for babies who need stabilisation or resuscitation at birth.**

SurePulse Medical is a joint venture business between The University of Nottingham and Tioga Ltd, an electronics manufacturing company with an international reputation.

The novel technology can help reduce the time babies spend in neonatal intensive care and reduce costs for healthcare organisations.

The wireless sensor detects changes in reflected light, sits in a specially designed single-use hat on the baby's forehead, and transmits signals to a wireless display. All components can integrate seamlessly into the current care pathway. SurePulse provides continuous, hands-free accurate monitoring; enabling medical staff to make fast, confident decisions and focus on performing procedures in time-critical situations.

[www.surepulsemedical.com](http://www.surepulsemedical.com)



## Nurture Fertility LLP

2013 – Fertility clinic – IVF treatment  
School of Medicine

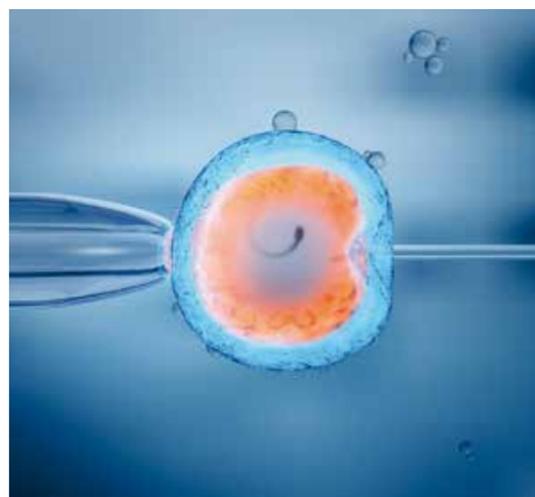
**As one of the UK's leading infertility clinics, Nurture offers a comprehensive service with treatments tailored to the needs of the individual. They aim to provide a full service from simpler forms of fertility treatment to the more complex procedures such as in vitro fertilisation (IVF) and intra-cytoplasmic sperm injection (ICSI) and will tailor the service to the individual.**

Initially formed as a business unit and embedded within the University at the Queen's Medical Centre, NURTURE (Nottingham University Research and Treatment Unit) grew to become one of the most clinically successful in vitro fertilisation (IVF) units in the UK. In 2014 Nurture spun out from the University, and is now a key member of the Fertility Partnership which has members across the UK and has extended to parts of Europe.

[www.nurturefertility.co.uk](http://www.nurturefertility.co.uk)



Nurture Fertility



### Critical Pharmaceuticals Ltd

2002 – Drug delivery – sustained release  
School of Chemistry

Critical Pharmaceuticals, based at BioCity, Nottingham, uses proprietary technology to incorporate delicate therapeutics into slow release polymers.

This is done through the use of super critical carbon dioxide.

[www.criticalpharmaceuticals.com](http://www.criticalpharmaceuticals.com)

### Platelet Solutions Ltd

2013 – Diagnostics – platelet therapies  
School of Medicine

The focus of Platelet Solutions is testing the efficiency of anti-platelet therapies used to prevent thrombotic events. This type of testing is important to people who are at risk of cardiovascular events such as heart attacks and strokes.

Previously, platelet function analysis had to be performed within minutes of taking a blood sample using specialised equipment. Platelet Solutions produces simple, disposable kits enabling blood samples to be taken and sent off for expert analysis. This will allow routine analysis and improved care.

[www.plateletsolutions.co.uk](http://www.plateletsolutions.co.uk)

### Pharminox Ltd

2004 – Drug discovery – cancer  
School of Pharmacy

Pharminox is focused almost exclusively on the discovery and development of novel, small molecule drugs for the treatment of cancer.

It has a specific research focus on molecularly targeted DNA damage and inhibition of DNA damage repair mechanisms.

[www.pharminox.com](http://www.pharminox.com)

## Azotic Technologies Ltd

2012 – Agricultural biotechnology  
School of Biosciences

**Azotic is based in BioCity and was established to exploit Nitrogen Fixation technology developed in the Schools of Biology and Biosciences.**

The company is focusing on enabling a specific range of economically important crops to grow with the ability to fix nitrogen from the air rather than relying on nitrogen added to the soil, reducing the need for fertiliser. This will be a significant economic benefit to growers, and carries the added benefit of reducing harm to the ecosystem.

Azotic raised substantial investment which it has used to conduct independent field trials with inoculated seeds in a range of crops around the world in different growing seasons. To date, the results in all trials have exceeded even the best of expectations.

[www.azotictechnologies.com](http://www.azotictechnologies.com)



## Geomatic Ventures Ltd

2016 – Satellite based ground motion surveys  
Faculty of Engineering

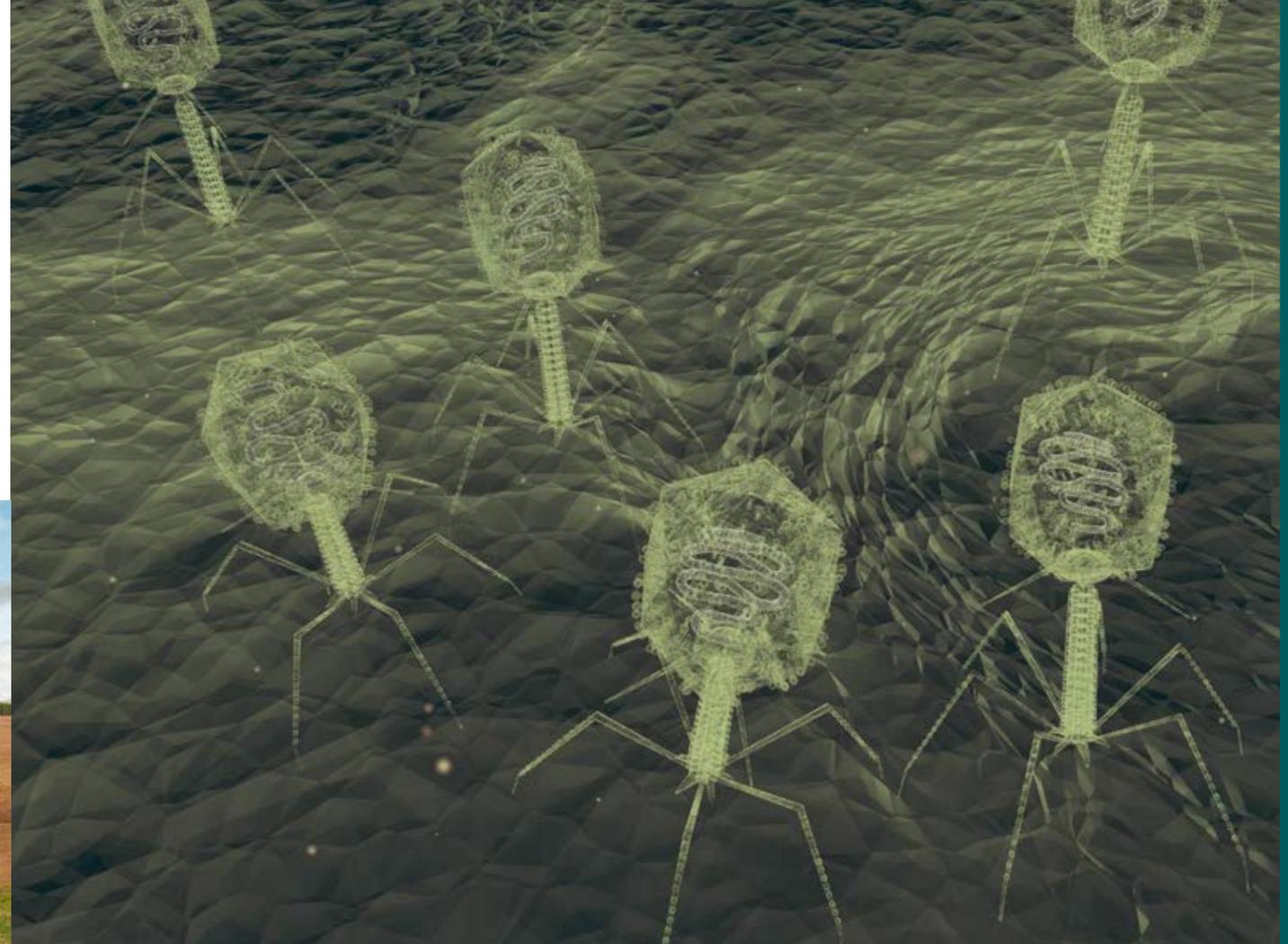
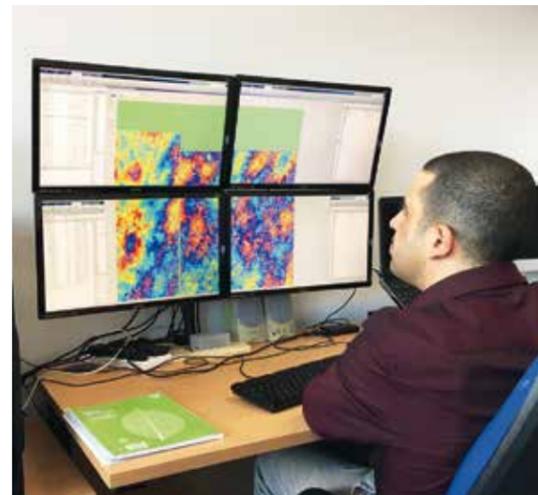
**Geomatic Ventures sells data sets generated by the Punnet software. The Punnet software utilises aperture radar-derived remote sensing images to underpin the creation of high precision maps of land deformation over large areas.**

The technology is differentiated from other satellite derived data due to its ability to generate high precision data despite the presence of vegetative cover. Data of this type is of significant value in a wide range of applications, including examining land for any adverse indicators to

subterranean oil or gas excavation, and monitoring any consequential effects.

The team received the Copernicus masters award and have a number of high profile partnerships in progress.

[www.geomaticventures.com](http://www.geomaticventures.com)



## PBD Biotech Ltd

2014 – Agricultural biotechnology  
School of Biosciences

**PBD Biotech has developed a novel phage-based diagnostic technique to detect the presence of mycobacteria infections.**

The test is able to distinguish between viable and non-viable organisms and, unlike currently used tests that monitor an immune response, can therefore reliably differentiate between animals carrying live infectious organisms and those that have been specifically vaccinated.

Whilst existing tests can take weeks to determine a result, making control of the disease difficult, PBD's test can provide a more reliable result within 8 hours.

[www.pbdbio.com](http://www.pbdbio.com)

## Nottingham University Architecture and Urban Design Ltd

2014 – Consultancy – architecture and urban design in China  
School of Architecture and Built Environment

**NUAUD was established primarily to forge links between the University campuses in Nottingham and China, and the Chinese architectural and urban design marketplace.**

Academics from Nottingham have had a strong impact on Chinese architectural and urban design projects, and NUAUD intends to strengthen its position using academics and students from both campuses. This gives students real project experience and enables academics to provide a service incorporating cutting edge technology and design principles.

## Promethean Particles Ltd

2008 – Nanomaterials design and manufacturing  
Faculty of Engineering

Promethean Particles work with customers to design, develop and manufacture a wide range of bespoke inorganic nanoparticle dispersions for multiple industry applications. The company has developed a unique, patented manufacturing process using continuous hydrothermal synthesis.

The process exhibits the quality and safety advantages demonstrated in wet processing, but surpasses the limitations of existing wet batch processing by being a continuous

process and highly scalable, and is therefore better able to meet commercial demand at consistent quality and reduced cost.

Bespoke nanoparticle dispersions are developed at laboratory scale before being scaled up and produced on the world's largest multi-material nanoparticle plant, owned and operated by Promethean Particles.

[www.prometheanparticles.co.uk](http://www.prometheanparticles.co.uk)



## Footfalls and Heartbeats (UK) Ltd

2016\* – Smart textiles \*Year restructured  
Faculty of Engineering

Footfalls and Heartbeats has developed a revolutionary process for manufacturing smart fabric which uses nano-scale interactions within the textile to make the fabric itself able to measure specific parameters of interest, avoiding the need for wires or miniature electronics.

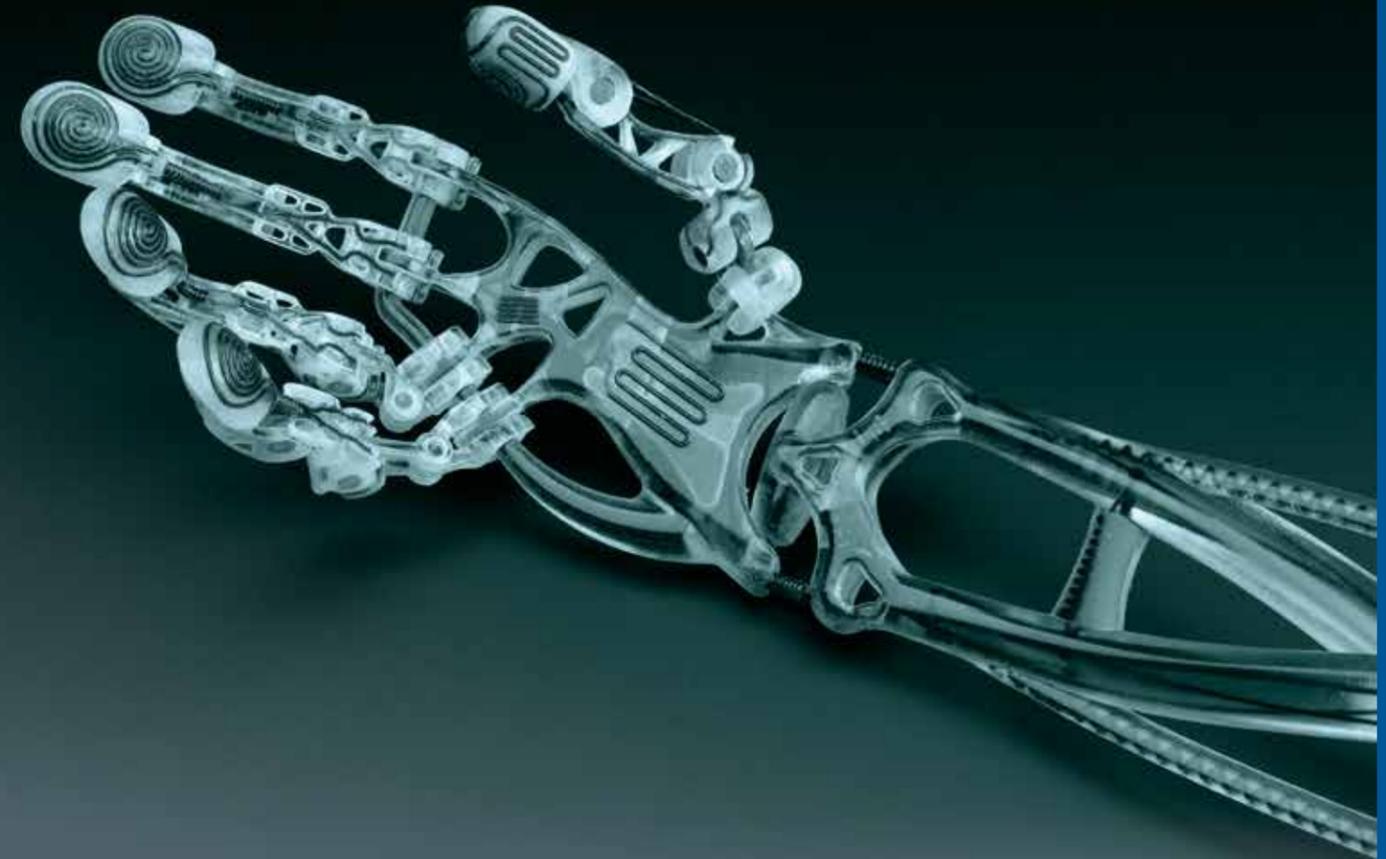
Integrating the technology into clothing but without the need for a separate "accessory" seems to be the next logical step for the increasing Wearable Technologies market and Smart Textiles market.

The company originated in New Zealand but has since transferred all operations to the UK and has 'spun in' to the University through collaborative activities related to synergistic optical sensor technology from the University.

[www.footfallsandheartbeats.com](http://www.footfallsandheartbeats.com)



Spin-Out Company Portfolio



## Added Scientific Ltd

Faculty of Engineering  
2015 – Additive manufacturing

Added Scientific is a service and consultancy business in Additive Manufacturing. The company began as an embedded service within the Faculty of Engineering, and has since become totally independent due to its success and growth.

The company focuses on design, bespoke software, material development, process enhancement and characterisation of product materials in additive manufacturing and 3D printing. The venture is associated with a large, well-funded research team who are well placed to provide cutting edge consultancy and services in this very fast moving arena.

[www.addedscientific.com](http://www.addedscientific.com)

Spin-Out Company Portfolio

## FaHRAS Ltd

2007 – Family history risk assessment  
School of Medicine

FaHRAS develops and sells Family History Risk Assessment Software which enables clinicians to assess breast cancer risk according to NICE guidelines and the latest academic algorithms and models.

The software builds and stores an individual's family and clinical history. Detailed analysis is then carried out using this evidence-based data to quantify the risk of developing breast cancer.

[www.fahras.co.uk](http://www.fahras.co.uk)



## EventMAP Ltd

2003 – Resource management  
School of Computer Science

EventMAP specialises in software and consultancy in the field of strategic resource management and planning.

technologically advanced timetabling and resource planning solutions for the education sector and other resource intensive industries. Their leading products are Optime, Resource, Event, Exam and Portal.

Tapping into the needs of educational institutions to increase student participation, EventMAPS's focus is on developing research-led,

[www.eventmapsolutions.com](http://www.eventmapsolutions.com)



## Staff Roster Solutions

2010 – Rostering automation software  
School of Computer Science

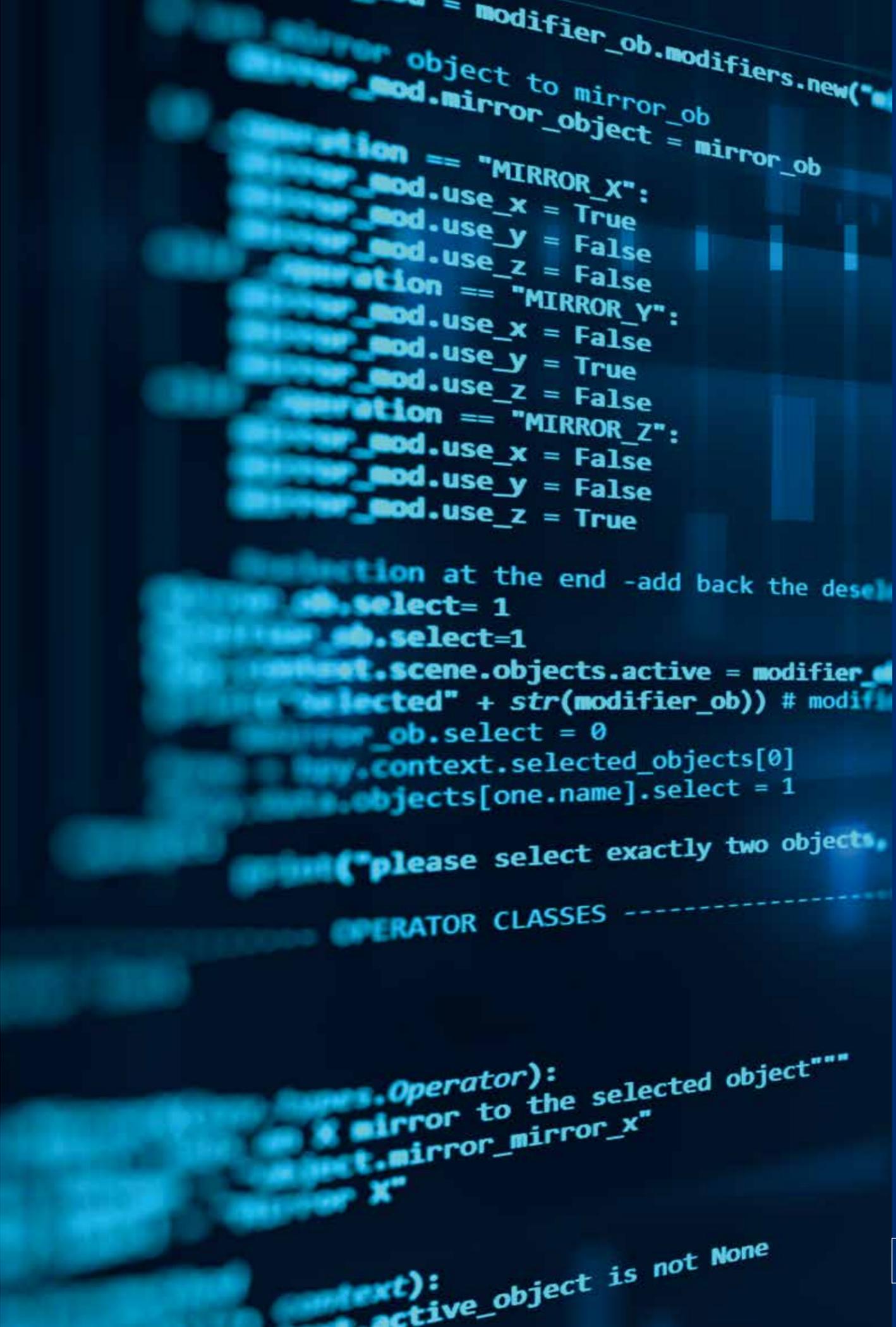
Staff Roster Solutions (SRS) licenses an advanced scheduling and optimisation engine to organisations to enhance their own workplace timetabling and scheduling software.

which allows automatic generation of optimal staff rosters and shift work schedules.

Using state of the art algorithms, it is able to introduce a range of conditions and constraints to existing workforce management solutions

The algorithms were developed by the University of Nottingham researchers over a number of years, prior to the formation of SRS.

[www.staffrostersolutions.com](http://www.staffrostersolutions.com)



## Oncimmune Holdings plc

2003 – Healthcare: Diagnostics – cancer  
School of Medicine

Oncimmune has developed a powerful new approach to the early diagnosis of primary cancer, cancer recurrence and the clinical management of cancer.

The technology is based on serum assays that detect auto-antibody formation to known cancer antigens with the clinical utility of early diagnosis of cancer.

This breakthrough is currently applied to lung cancer through the development of a blood test EarlyCDT®, but will be extended to the detection of other common cancers such as breast, colorectal, ovarian and prostate.

The company is based in customised laboratory and office space at Nottingham City Hospital, and began trading on AIM in May 2016.

[www.oncimmune.com](http://www.oncimmune.com)



## Scancell Holdings plc

1996 – Healthcare: Drug discovery – cancer  
School of Medicine

Scancell's mission is to develop products that stimulate the immune system to treat or prevent cancer.

In December 2006 Scancell sold its pipeline of direct killing monoclonal antibodies to Arana Therapeutics, an Australian biopharmaceutical company. The deal allowed Scancell to focus its efforts entirely on its innovative ImmunoBody® and Moditope® cancer vaccine programmes.

Scancell's first clinical candidate drug, ImmunoBody® is a DNA vaccine which is being developed for the treatment of melanoma.

Scancell began trading on AIM in 2008.

[www.scancell.co.uk](http://www.scancell.co.uk)



## Monica Healthcare Ltd



2005 – Medical device: Foetal monitoring  
Acquired by GE Healthcare March 2017  
Faculty of Engineering

Monica Healthcare developed wireless, wearable, waterproof technologies for foetal and maternal heart monitoring by measuring the electrical signals from the surface of the skin.

Monica's products provide excellent monitoring for expectant mothers, including those with a high BMI, which is a strong advantage over other well established systems that tend to be less effective in these patients. Monica's first product for foetal monitoring was their AN24. Whilst this is still sold in markets where consumable pricing is sensitive, it is largely superseded by the latest product range, branded Novii, which offers a number of improvements for the patient and has a more consumable focused approach.

GE Healthcare started selling the Novii products in 2015 and very quickly exceeded their sales forecasts. The clear fit of the Novii range in GE's product portfolio resulted in GE Healthcare acquiring Monica in March 2017.

[www.monicahealthcare.com](http://www.monicahealthcare.com)



PRECOS (Pre-Clinical Oncology Services) Ltd (2010)  
School of Medicine

Acquired in 2013 by Californian based drug discovery business, Crown Biosciences.

Prior to acquisition, PRECOS offered specialised research services in pre-clinical oncology testing and progressed several oncology therapies through pre-clinical testing to the clinic.

[www.precos.co.uk](http://www.precos.co.uk)



Molecular Profiles Ltd (1997)  
School of Pharmacy

Acquired by Boston based company, Columbia Laboratories, now Juniper Pharmaceuticals.

Prior to acquisition, Molecular Profiles provided a complete portfolio of drug development services and consulting services to the pharmaceutical industry worldwide. Molecular Profiles was awarded two Queen's Awards for Enterprise, the highest business accolade in the UK, in recognition of its continued innovation.

[www.molprofiles.co.uk](http://www.molprofiles.co.uk)



Spirogen Ltd (2000)  
School of Pharmacy

Acquired in 2013 and is now an AstraZeneca Company.

Prior to acquisition, Spirogen specialised in the discovery and development of low molecular weight sequence-specific DNA-interactive drugs designed to treat gene-mediated diseases. The company's main objective was to demonstrate the broad applicability of its platform technology by developing marketable drugs, initially in the areas of cancer and infectious diseases.

[www.spirogen.com](http://www.spirogen.com)

### Exits Pre-2013

Aims Solutions  
Aptia Solutions  
Biotec Laboratories  
Flavometrix

Gamma Technologies  
Mission Room  
Nexor  
Scott Wilson Pavement Engineering