



# **SBRI HEALTHCARE ANNUAL REVIEW 2019 | 2020**

ACCELERATING HEALTHCARE  
INNOVATION FOR PATIENT BENEFIT

# Contents



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# The Programme

## SBRI Healthcare

SBRI (Small Business Research Initiative) Healthcare is a national award-winning scheme, offering development funding to innovators and entrepreneurs to devise disruptive solutions to solve identified healthcare problems in the NHS and the wider health and social care system.

SBRI Healthcare is an NHS England and NHS Improvement initiative, supported by England's 15 Academic Health Science Networks (AHSNs) and hosted by LGC Group.

Now more than ever, the UK has pride in the NHS's enduring success, and in the shared social commitment it represents. However, most of the challenges of the NHS Long Term Plan, such as funding, staffing, increasing inequalities and pressures from a growing and ageing population, still remain to be met.

SBRI Healthcare provides a mechanism to signal the challenges that the NHS and the wider system face and invites ventures to deploy innovative solutions to deliver improved outcomes of care. Our individual competition themes are scoped by working in close collaboration with frontline NHS and social care staff.

**Through the available funding and the support from AHSNs, the programme aims to:**

**Improve patient care**

**Increase NHS efficiency**

**Enable the NHS to access new innovations through research and development that solve identified healthcare challenges and unmet need**

**Bring economic value and wealth creation opportunities to the UK economy.**

## WHAT MAKES SBRI HEALTHCARE DIFFERENT

-  Supports healthcare needs identified in the NHS Long Term Plan and provides a clear articulation to innovators
-  Invests in breakthrough technologies and services to accelerate the spread of innovation in the NHS, the wider UK and overseas markets
-  Support from the Academic Health Science Network in accelerating access and adoption
-  Customer friendly, quick turnaround, low-burden application process
-  100% funding to companies
-  De-risking approach through phase funded contracts
-  Delivers benefits for patients and the NHS
-  Early health economic assessment of funded products and services which helps support the NHS business case
-  Access to networking opportunities with the AHSNs, NHS partners and the innovation ecosystem
-  Early exposure to the investment community



**The LapAR™ development would not have gone ahead without SBRI funding as the project was extremely ambitious and required the maximum funding to be achieved, funding that could not be sourced elsewhere.**

Elliot Street, CEO Inovus

## WHAT SBRI HEALTHCARE LOOKS FOR IN AN APPLICATION

SBRI Healthcare invites outstanding entrepreneurs to put forward breakthrough innovations, which address a clearly articulated challenge faced by the NHS and/or the social care community.

**To be awarded a contract, applicants need to:**

**show the impact that the proposed solution can deliver to the health and care system**

**ensure the innovation will be acceptable to patients and affordable to the NHS**

**and has the potential to shape the future of healthcare, deploying new models of care and help tackle health inequalities.**

Competitions are open to any type of organisation, including academia, NHS Trusts, charities and corporates, but are particularly suited for small and medium enterprises.

## A TRANSPARENT, ROBUST AND IMPROVED SELECTION PROCESS

The selection process is highly competitive and robust. Phase 1 applications (to test feasibility, up to £100,000 and six month duration) are reviewed by clinical, technical and commercial experts. We introduced a three-minute video pitch, which shortlisted applicants submitted for further assessment by a multidisciplinary Selection Panel. The Panel includes national clinical

leads, entrepreneurs, investors, implementation experts, medtech and digital health technology professionals, AHSN representatives and patients.

Before progressing to Phase 2 (for prototype development and clinical data evidence gathering, up to £1 million and 12 month duration), proposals are subject to independent

peer review. Invited applicants present their Phase 2 project to the Selection Panel for further assessment. The PMO carries out a thorough due diligence exercise at different points in time to support the decision-making mechanism and further de-risk projects to facilitate follow-on funding, including private investment.



**Working with SBRI has been great, I have recommended many others to apply to future programmes due to the support and connections created through the programme. Funding is great, connections are priceless.**

Ben Wilkins, CEO GoodBoost

## NEW PROGRAMME MANAGEMENT OFFICE

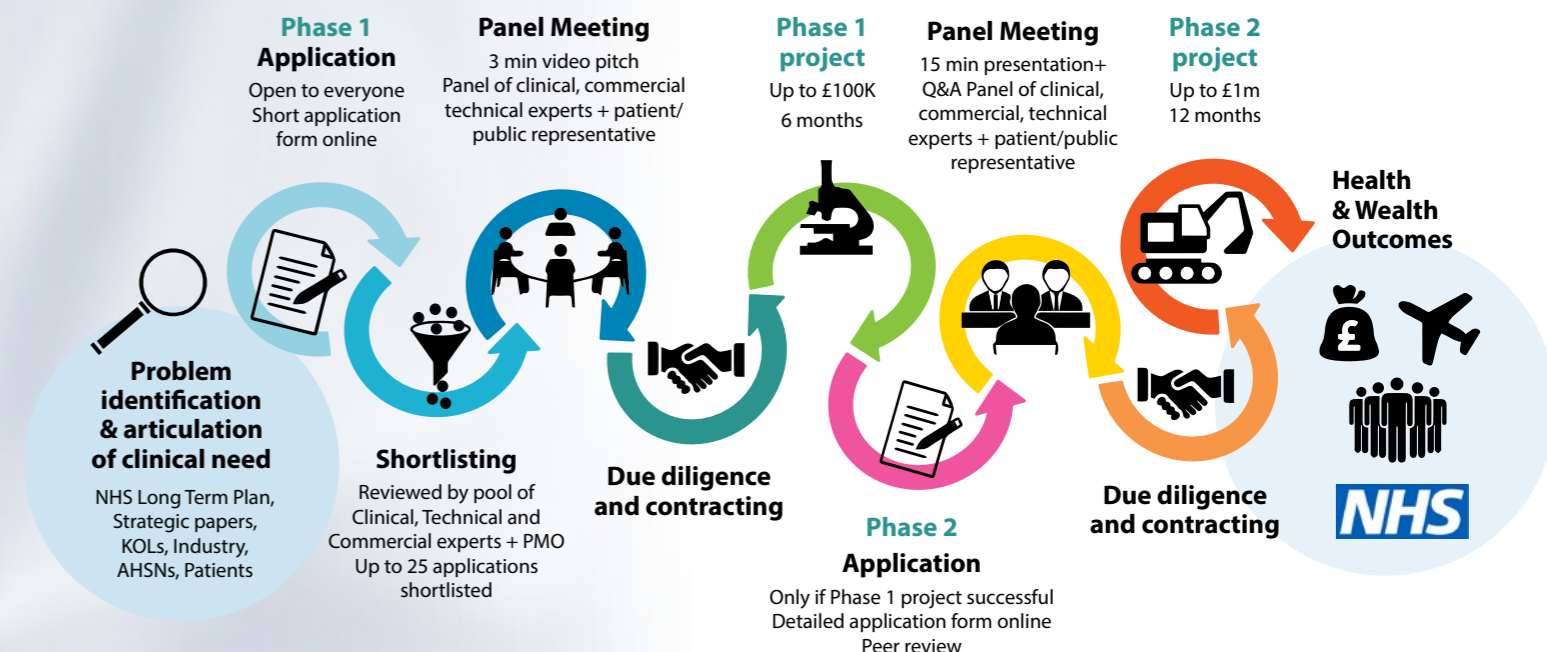
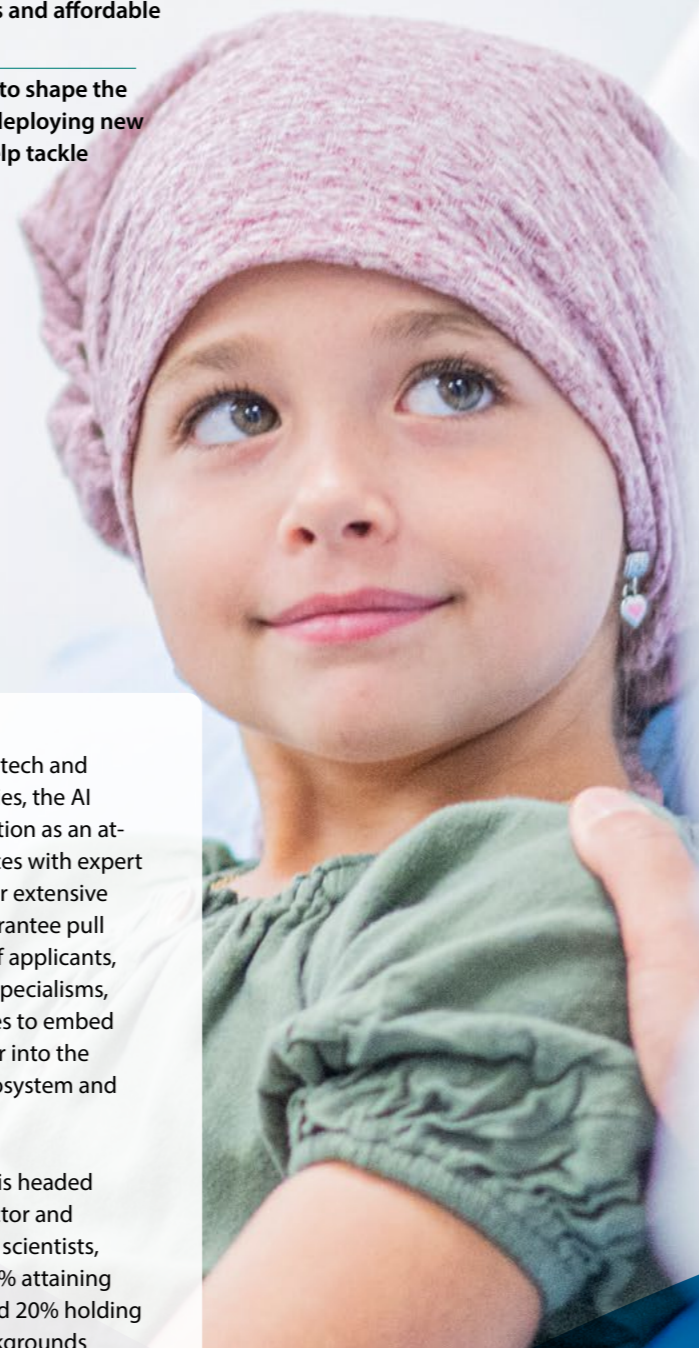
Since 1 April 2019, the SBRI Healthcare Programme has been managed by the Innovations Team, within the Grant Management Group at LGC Group.

We set up a Programme Management Office (PMO) for SBRI Healthcare and have invested in its long-term sustainability through integration with other programmes managed by the Innovations Team, such as the National Institute for Health Research (NIHR) Invention for Innovation (i4i) programme and the recently launched Artificial Intelligence (AI) in Health and Care Award, run by the Accelerated Access Collaborative (AAC) in partnership with NIHR and NHSX.

As a result, the PMO is ideally positioned to deploy synergies,

with i4i's focus on medtech and investment communities, the AI Awards and LGC's position as an at-scale provider of services with expert functional support. Our extensive national networks guarantee pull from a diverse range of applicants, enable access to NHS specialisms, and open opportunities to embed the programme further into the UK entrepreneurial ecosystem and national procurement.

The Innovations Team is headed by Ben Patient as Director and composed of qualified scientists, with approximately 90% attaining Master or PhD level and 20% holding an MBA. Scientific backgrounds include pharmaceuticals, chemistry, biochemistry, genetics, molecular biology, in vitro diagnostics and medical devices. We are supported by a specialised IP and Commercial team with 60+ years of experience in tech transfer.



**Initial application process was straight forward and pitch day was organised well and went smoothly. Since approval, the team have been engaging and supportive as we have progressed through the project. They've also been flexible when timing of parts of the project have changed due to the COVID pandemic.**

Darren Crombie, CEO & Founder, Bridgit Care

## CORE SBRI HEALTHCARE PANEL

We are creating a core multidisciplinary SBRI Healthcare Panel, covering technical, clinical, commercial, entrepreneurial and implementation expertise, complemented by challenge-driven clinical matter experts, to ensure deep understanding of the programme and strong advocacy from the ecosystem.

The core Panel will be supported by a pool of trusted and expert assessors including (but not limited to) alumni from the NHS England and NHS Improvement Clinical Entrepreneur Programme.

The Panel will recommend proposals for funding, which will then be ratified by NHS England and NHS Improvement.

We have appointed two independent Chairs, who will be supported by Deputies in the delivery of the SBRI Healthcare Selection Panels.

We welcome on board:



**Professor Mike Lewis**, who works with five life science and digital health companies and is Professor of Life Science Innovation at the College of Medical and Dental Sciences, University of Birmingham.



**Dr Glenn Wells**, Director of Strategy and Planning at UKRI MRC.

## PATIENTS AT THE CORE OF OUR MISSION

Engaging with patients, carers and the public is key to ensure the SBRI Healthcare Programme delivers patient benefit.

Patient and public involvement and engagement (PPIE) is an accepted working practice within healthcare research ensuring that solutions are co-produced with patients, meet patient needs, and that there is an acceptability among end-users.

After a successful pilot in the Panels for Competition 16, from 2020, patient input will be embedded in the end-to-end programme process, from scoping of the healthcare need, scrutiny of application and involvement in the Selection Panel, to the participation in the newly formed Independent Strategy Advisory Board.

Applicants will be expected to appropriately engage and involve patients at an early stage, by developing a thorough PPIE strategy as part of their Phase 1 projects and implement it, if awarded, in Phase 2.

# Investing in NHS-driven disruptive innovations and exposing entrepreneurs to investors

The UK is internationally recognised for its leadership in innovation, the excellence of our scientific institutions, and the vibrant entrepreneurial community that support our economy.

In light of the COVID-19 crisis, the importance of being able to find transformative, practical and timely solutions to the most challenging problems has become even more pressing.

The SBRI Healthcare Programme goal is to further strengthen opportunities to unlock and spread innovations in the NHS and beyond, tackling the major challenges we face, and translating products and services to deliver benefits to patients, by leveraging NHS England and NHS Improvement policy levers.

We aspire, by working closely with NHS England and NHS Improvement's Accelerated Access Collaborative (AAC) team, to increase the volume of proven innovations in the hands of clinicians and patients and to contribute to making the NHS a great place to innovate.

The sections below illustrate the activities delivered in the past year towards those goals.

## TACKLING NHS NEEDS AND ACCELERATING TECHNOLOGIES INTO THE NHS

In the past year, the Programme has awarded £4.2 million Phase 2 funding to five pioneering medtech innovations in the fields of Musculoskeletal Disorders (MSK) and Oral Health to fast-track these technologies through the next stages of commercialisation.

The Programme also launched a new competition to tackle the most pressing issues in Cardiovascular Diseases and Integrated Care and Social Care and awarded £1 million to ten companies.

We are particularly proud to have had the opportunity to boost funding in Integrated Care and Social Care, which is scarcely supported, despite its key importance recognised in the NHS Long Term Plan.

The Programme facilitates projects that aim to release pressures in the system and help the NHS and its partners to create integrated care systems of GPs, community health and social care staff.

“  
These exciting projects will not only identify new ways to improve care, but also the care system itself, so that patients, the NHS and society as a whole can benefit.

Stuart Monk, Associate Director of Delivery  
South West AHSN

**2** Competitions supported

**4** Challenges:  
Musculoskeletal Disorders; Dentistry, Oral Health & Oral Cancers; Cardiovascular Diseases; and Integrated Care and Social Care

**5** Phase 2 companies awarded

**150+** Phase 1 applications submitted

**10** Phase 1 companies awarded

**£5.2**  
million invested

... It is so exciting as they have the potential to revolutionise patient care for the 7.4 million people living with heart and circulatory diseases in the UK. Alongside the SBRI Healthcare funding we are looking forward to accelerating the use of these proven innovations within NHS's cardiovascular services.

Lesley Soden, Innovation Programme Director  
Health Innovation Network

### MUSCULOSKELETAL DISORDERS

**good boost**  
**Good Boost Wellbeing** – transforming public swimming pools into therapeutic spaces for MSK conditions.

**getUBetter** – self-management and prevention technology for musculoskeletal conditions and occupational health.

**Mogrify** – developing proprietary direct cellular conversion technology to create a scalable supply of allogeneic chondrocytes for regeneration of the joints in cartilage defects and osteoarthritis.

**VirtiHealth** – immersive education platform that transports users into realistic environments using VR and AR and analyses their performance to improve outcomes.

### DENTISTRY, ORAL HEALTH AND ORAL CANCERS

**Zilico** – developing Electrical Impedance Spectroscopy (EIS) technology to improve the speed and accuracy of oral pre-cancer and cancer diagnosis.

### INTEGRATED CARE AND SOCIAL CARE

**Bronze Software Labs** – addressing care inequality through closing national social care 'dark patches' where services are not currently commissioned or failing.

**Brain in Hand** – transforming the model of care for autistic individuals, helping them to live more independently by providing a digital solution for delivery of personalised care.

**Integrated Care and social care (Vida)** – Combining home monitoring with predictive analytics to enable early detection and intervention of respiratory diseases.

**Loc8tor** – Producing an enhancement strategy for the B2C Wellwise assisted living solution.

**Nelus AI** – Integrating hearing test with an AI-enabled BOT for early identification and integrated responses to hearing loss and frailty.

**Bridgit Care** – helping elderly people keep well and independent both within and outside their homes.

### CARDIOVASCULAR DISEASE

**AIMES** – AI enhanced MRI measurement of heart function for speed, accuracy and prognostication.

**Ceryx Medical** – developing a novel implantable bioelectronics therapeutic device targeting Heart Failure.

**Invitron** – developing a portable device that will perform rapid, accurate diagnostic tests using just a small finger prick of blood.

**Oxford Heartbeat** – developing technology that helps clinicians to accurately plan and rehearse minimally invasive stent graft replacements inside blood vessels for more efficient and effective cardiovascular surgeries.

### SEAMLESS COLLABORATION WITH THE ACADEMIC HEALTH SCIENCE NETWORK

The network has warmly welcomed the new Programme Management Office (PMO). The AHSNs have continued to play a key role to the success of the scheme and are working tirelessly in collaboration with us to further increase the quality and consistency of the support offered to innovators.

Six AHSNs have mobilised and provided expertise, resources and cross-sector connections to help scope the set challenges, engage with clinicians, support launch events and promotional campaigns and attend the selection Panels.

The AHSNs hosted the SBRI Healthcare stand at the 2019 NHS Expo, offering a meeting point for innovators.

### BRINGING INVESTORS TO SBRI HEALTHCARE FUNDED INNOVATORS

We recognise it is difficult for medtech and digital health companies to identify and secure early stage funding.

We brought the investors to our entrepreneurs and created the opportunities for companies in the SBRI Healthcare portfolio to pitch to business angels and early venture capitalists.

The programme, in collaboration with NIHR Invention for Innovation

(i4i) and Innovate UK and supported by the Knowledge Transfer Network (KTN), hosted an investment readiness training programme followed by two virtual pitch events in April 2020.

The PMO congratulate Aseptika, BfB Labs, Cadscan and Invitron for having been selected from the 75+ companies that applied to the initiative.

The initiative was really useful in helping us understand the detail of what investors need to see, and to place an emphasis on this in our pitching material. We were able to practice and refine this, initially with our peers, followed by a critique from a Panel of investment experts. This meant we were well prepared before pitching at the showcase event.

Alastair Buchanan, Managing Director, Cadscan

Listen to the feedback received from Aseptika and BfB Labs.



# IMPACT

## INPUT

**£99m+**

Total invested

**217**

Products supported

## OUTPUT



**107**

IP granted



**412**

New collaborations established



**3418**

Sites accessed through trials or sales



**1,255**

Jobs created /retained

## OUTCOME



**£290m+**

Private investment leveraged



**68**

Companies with commercial revenues



**29**

Products exported



**50**

Companies with sales in the NHS



**>4.4m**

Patients involved through sales and trials

## IMPACT





# AHSN Network support - Accelerating access and adoption

The fifteen regional Academic Health Science Networks (AHSNs) that make up the national AHSN Network have supported SBRI Healthcare since its inception in 2009.

Uniquely placed to understand the needs of our health system and to broker innovative solutions, AHSNs collaborate across England to help innovators develop what works best and spread it nationally.

AHSNs connect regional networks of NHS, social care, academic organisations, local authorities, the third sector, industry and citizens - responding to the diverse needs of patients and populations through partnership and collaboration.

The AHSNs support SBRI Healthcare by collaborating with the Project Management Office in setting up competitions designed to attract innovations that respond to the defined needs of the health and care sector. AHSNs understand and articulate the demands of the NHS and patients, ensuring competitions are targeted at the areas of maximum potential benefit. Their teams specialising in health innovation form a central part of the selection process, and take forward relationships with successful

companies to help maximise traction within the NHS and social care system.

This year, the AHSN Network has provided support to 2,540 companies, many of which have been funded by SBRI Healthcare. These companies have been able to grow and create new jobs by accessing expertise and opportunities in the health and care sector.

**We have connected with many AHSNs throughout England and all have worked hard and been instrumental in introducing us to prospective users in the NHS. Through our local Oxford AHSN networks and expertise, we have been able to draw upon a wealth of academic and industry capability not only locally but nationally, which has aided our own development as a UK healthcare business. In particular, Oxford AHSN has incorporated Isansys into the collective developments of the Oxfordshire region, through events, innovation networks and collaborative platforms, leading to greater exposure and wider recognition.**

Keith Errey, CEO Isansys Lifecare

# SBRI Healthcare competitions

The AHSN Network has provided guidance and leadership for the following SBRI Healthcare competitions in 2019/20:

## Improving Outcomes in Musculoskeletal Disorders Launch date: May 2019

AHSNs involved: West Midlands

### Applications were invited under three sub-themes:

- Self-care & preventative medicine
- Scaling up the use of regenerative medicine
- Efficiencies in delivery care

I attended two days of evaluation interviews for the MSK competition and I was impressed both with the quality of the proposals presented and the organisation of the two days by the SBRI Healthcare team.

Tony Davis, Director of Innovation & Economic Growth, West Midlands AHSN

Wessex AHSN developed the Dentistry, Oral Health & Oral Cancers competition with clinical guidance from a specialist oral surgeon, identifying needs and priorities in the dental landscape as well as the potential for commercially developed products emerging from successful applications. In both phases of the call, Wessex AHSN and the SBRI selection Panel reviewed the longlisted applications, which consisted of interesting and creative innovations.

Rachel Dominey, Associate Director of Primary Care, Wessex AHSN

## Cardiovascular Disease Date: June 2019

AHSNs involved: Innovation Agency (North West Coast AHSN), Health Innovation Network (HIN).

### Applications were invited under three sub-themes:

- Detection and prevention
- Intervention and invasive investigations
- Efficacy of the CVD pathway

HIN led the launch of the cardiovascular call in London and we worked with HInM to do a launch in Manchester for northern SMEs. Together we developed the scope, engaging with our local systems to identify a range of needs. I worked closely with Lesley Soden from HIN, South London to refine the needs, agree the common themes and key priorities and to make sure that there was a significant market opportunity, should solutions be successfully developed. Our Medical Director, Phil Jennings who is trained in cardiology was involved in the shortlisting process and we also identified local clinical experts.

Lorna Green, Commercial Director, Innovation Agency, North West Coast AHSN

To define the scope of the Integrated Care and Social Care call, we co-ordinated input from our system leaders in Greater Manchester, including our clinical director Tracey Vell, representatives from the Local Care Organisation and also the National Clinical Director for Older People, Professor Martin Vernon. We then worked closely with the other AHSNs to host a launch event, promote the competition and review submissions.

Richard Deed, Commercial Director, HiN Manchester

## Integrated Care and Social Care Launch date: June 2019

AHSNs involved: South West AHSN and Health Innovation Manchester (HInM).

### Applications were invited under two sub themes:

- Improve effective data sharing systems across the care network
- Reduce social care workforce pressure

# Forward look

Over the past year, we have been improving the operational aspects of the SBRI Healthcare programme.

Going forward, our commitment is to further leverage the SBRI Healthcare Programme's reputation for delivering innovative products at pace to improve NHS efficiencies, patient care and bring economic value and wealth creation opportunities to the UK economy. We aspire to unblock the barriers that hamper entrepreneurs' ability to stimulate innovations into the NHS and the social care system and to create increased synergies across funders and the wider innovation ecosystem to accelerate the translation of innovation into practice.

## WE WILL BETTER ARTICULATE THE HEALTH AND SOCIAL CARE NEEDS

Building from previous work carried out by the AAC team to help signal the demand for research and innovation in the NHS and social care system, we will be working closely with the NHS England and NHS Improvement Demand Signalling initiative and the NIHR Innovation Observatory. Work has already begun with the Mental Health, Learning Disability and Autism and Stroke national policy teams, including patients, carers and public representatives, to identify specific areas of health need which research and innovation should address. We will better articulate the NHS pain, scan the research and commercial pipeline, avoid local biases but allow for regional inputs. By doing so SBRI Healthcare will strengthen its position in delivering innovations that address the NHS Long Term Plan challenges and tackle health inequalities.

## WE WILL SEIZE OPPORTUNITIES FOR MATCH FUNDING AND NEW PARTNERSHIPS

To ensure a steady growth of the Programme, we will seize co-funding opportunities by engaging with charities, funders, and other organisations and match-funding mechanisms to bring private investors into the Programme.

We will also explore how to empower the NHS frontline and deliver pull-through of public sector procurement to reach equitable spread.

## WE WILL BUILD A COMMUNITY OF INNOVATORS AND PROVIDE NETWORK OPPORTUNITIES AND TAILORED EVENTS

Engagement with innovators has highlighted the need to provide, in addition to the funding, a wider programme of activities to help maximise the potential for successful project outcomes delivery. We are planning for an exciting offer of tailored events including training modules, peer-to-peer learning opportunities, alumni, showcase and pitch events.

## WE WILL WORK CLOSELY WITH NIHR, UKRI, NHSX AND AAC FOR A SIMPLIFIED AND EASY TO NAVIGATE CUSTOMER JOURNEY

We understand that innovators are facing an ecosystem that is complex to navigate and appears fragmented. We will catalyse initiatives to collaborate across schemes to enable the delivery of operational and strategic enhancements and to eliminate administrative inefficiencies focusing on value-adding activities, bringing value for money to customers and providing exceptional customer experience from pre- to post-award stages.

The PMO will further strengthen its "open door" approach to innovators by providing tailored advice and guidance throughout the funding journey, support and signposting. Collaborations across funders and the wider innovation ecosystem will promote knowledge exchange and inclusivity.

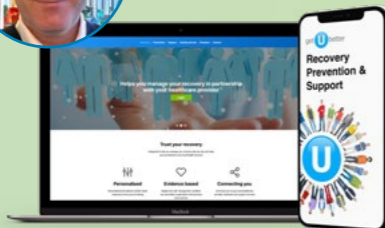
# The Business Entrepreneurs

## Unleashing innovations into the NHS for enhanced patient care

**lifelight\***  
**Laurence Pearce**  
 Founder & CEO, Xim  
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 info@lifelight.ai  
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**getU better**  
**Carey McClellan**  
 CEO and Clinical Director, getUBetter  
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## Driving efficiency improvement in the NHS

**myGP**  
**Tobias Alpsten**  
 CEO, iPLATO Healthcare  
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**Mayden**  
**Chris May**  
 Founding Director, Mayden  
 @MaydenTweets  
 projects@mayden.co.uk  
[www.mayden.co.uk](http://www.mayden.co.uk)



## Transforming people's lives through patient-centred healthcare innovations

**good boost**  
**Ben Wilkins**  
 CEO, Good Boost  
 @Good\_Boost  
 ben.wilkins@goodboost.org  
[www.goodboost.org](http://www.goodboost.org)



**11 HEALTH**  
**In Memoriam: Michael Seres**  
 (1969 – 2020), Founder and CEO, 11 Health & Technologies  
 @11HealthandTech  
 www.linkedin.com/company/11-health-&-technologies-limited/  
[www.11health.com](http://www.11health.com)



## Stimulating new models of care to help the most vulnerable population

**bridgit**  
**Darren Crombie**  
 CEO & Founder, Bridgit Care  
 darren@bridgit.care  
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[www.bfb-labs.com](http://www.bfb-labs.com)



## Boosting the innovation pipeline and attracting private investment

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**Karin Schmitt**  
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 karin@mogrify.co.uk  
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**current health**  
**Christopher McCann**  
 CEO and Co-Founder, Current Health  
 @HeyCurrent  
 hello@currenthealth.com  
[www.currenthealth.com](http://www.currenthealth.com)



## Supporting companies' growth and wealth creation in the UK and overseas

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**Elliot Street**  
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 @inovusmedical  
 elliot@inovus.org  
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**OWLSTONE MEDICAL**  
**Billy Boyle**  
 CEO, Owlstone Medical  
 @OwlstoneMedical  
 breathbiopsy@owlstone.co.uk  
[www.owlstonemedical.com](http://www.owlstonemedical.com)



## Contributing to the nation's response to COVID-19

**isansys**  
**Keith Errey**  
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# Unleashing innovations into the NHS for enhanced patient care



Competition: GP of the future  
**Award: £1,099,918**

**Lifelight is game-changing technology - the world's first completely contactless measurement of vital signs by a smart device - blood pressure, pulse, respiration and oxygen saturation – in just 40 seconds.**

Supported by NHS England, Lifelight is a life-saving digital healthcare platform that measures the key vital signs in critical areas including infectious disease detection and control, long-term condition monitoring and remote primary care consultations. Lifelight allows healthcare providers to take accurate vital signs readings in 40 seconds, just by a patient looking into a smartphone or tablet device, with no additional hardware needed.

One goal of the NHS Long-Term Plan is to offer patients remote consultations. Accelerated by Coronavirus, Lifelight is playing a key role, allowing clinicians to

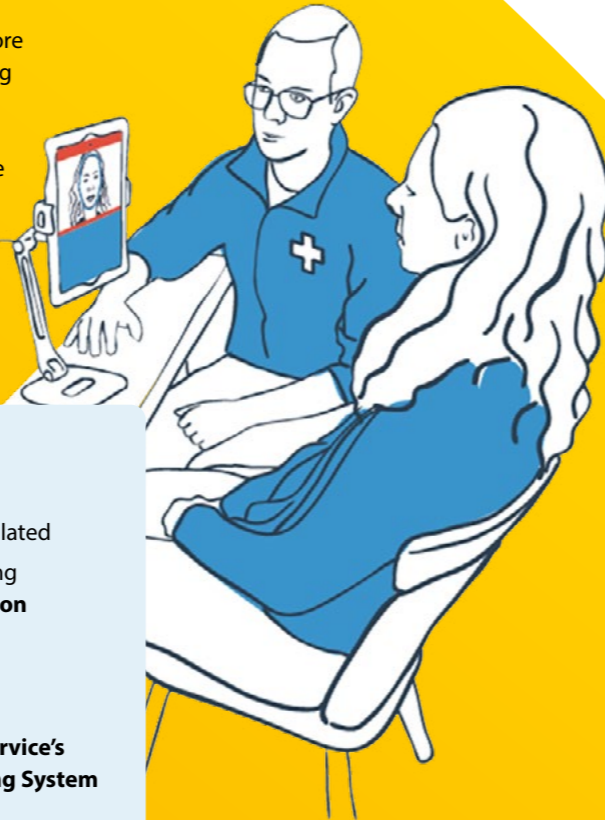
know a patient's vital signs, equipping them to effectively assess the physical condition of the patient for an improved outcome.

Clinically validated and regulatory approved, Lifelight is available to clinicians globally, delivering benefits across a wide range of use cases. The starting point is in primary and secondary care and especially during the pandemic, care homes - saving clinical time, informing remote consultations and for residents to be cared for by a known carer. The technology delivers system-wide efficiencies favouring faster and more accurate observation taking, leading to workforce transformation while improving patient experience. COVID-19 has highlighted the value of remotely monitoring patients safely and at volume, resulting in high demand for Lifelight globally - Lifelight's vision is to turn every device on the planet into a self-monitoring healthcare platform.



**Working with SBRI has helped us obtain high quality clinical data, through an extensive trial, to achieve accuracy levels for Lifelight that are comparable with traditional methods, essential to also securing clinical regulation.**

Laurence Pearce, Lifelight Founder & CEO



## IMPACT

- » **World's first contactless observations** – including blood pressure
- » Deployed today across **15 care homes**, two secondary care sites and two GPs
- » **Estimated to save "over £75 million** a year for NHS investment, if used in GP surgeries alone." JB Medical – Independent NHS Healthcare
- » Selected by NHS England as one of four nationally important technologies, for NICE's digital health pilot
- » The above resulting in a NICE MedTech Innovation Brief (MIB)
- » CE marked and MHRA regulated
- » Clinically validated including **8,500 patients and 1 million heartbeats**
- » **9,135 patients benefiting through trials**
- » **On Crown Commercial Service's Spark Dynamic Purchasing System**
- » **Global partners network**
- » **Follow on funding from Innovate UK**
- » Seed investment round closed
- » **COVID-19:** Lifelight piloted at Hampshire Hospitals NHS Foundation Trust



Competition:  
**Musculoskeletal Disorders Award: £960,358**

**Evidence based, CE marked, digital self-management platform for all common musculoskeletal conditions that cost the NHS £5 billion per year. Patients trust their recovery preventing over treatment.**

All common musculoskeletal conditions such as back pain have a massive impact on patients, the workplace and the NHS. They account for 18-30% of all GP appointments and cost the NHS £5 billion every year. 80% of patients are over treated as they will get better with good self-management support alone.

getUBetter is an evidence based, CE marked, digital self-management platform for all common musculoskeletal injuries and

conditions. It provides true-self management support so patients trust their recovery and are only re-directed to other services when absolutely necessary. It means CCGs can provide a digital first approach for their whole MSK pathways avoiding silos of care and preventing over treatment. Each element of the pathway is configured to the local CCG and delivered to their population and patients are supported through their recovery day-by-day.

An independent NICE DHT framework assessment identified getUBetter as Tier 3a supporting self-management and preventative behaviour change. An independent health economic evaluation shows a potential saving for a CCG of £1.96 million per year for back pain alone, which is backed up by real world evidence of a 13% reduction in GP follow up and 20% reduction in physiotherapy referrals from use

**We see the ever-expanding app as a major part of our service redesign going forward.**

Jim Fenwick, CEO Battersea Healthcare

by over 3,000 patients. getUBetter is currently available in the UK NHS and occupational health organisations. Backed by real world evidence of a 13% reduction in GP follow up, a 50% reduction in prescribed medication and a 20% reduction in Physiotherapy referrals and is being used by over 10,000 patients. getUBetter was nationally recognised as a NHSx digital playbook NHSx Playbook.

## IMPACT

- » **Adopted in 150 GP practices**, Urgent care system and across whole Physiotherapy services.
- » Now being piloted in care homes
- » **Over 10,000 patients** benefiting to date
- » Reduced physiotherapy referrals
- » Reduced GP appointments
- » Reduced prescriptions
- » Demonstrated behaviour change



**The SBRI Healthcare award has accelerated the development and implementation of getUBetter at scale, helped unblock financial barriers to meaningful technology development in the NHS and facilitated real world NHS co-design.**

Carey McClellan, CEO and Clinical Director, getUBetter





## Competition: Integrated Care and Social Care Award: £99,486

Available when needed and fully personalised, Brain in Hand (BIH) transforms the delivery of services for autistic people by combining personal technology and high-quality remote support.

Failure to properly support autistic people costs the UK £32 billion annually in treatment, lost earnings, care and support. It is a priority in the NHS Long Term plan and a challenge that requires the combined efforts of health and social care.

As part of the SBRI Healthcare programme, BIH was deployed in the autism clinical pathway for adults going through the assessment and diagnostic process.

This presented an invaluable opportunity to demonstrate that the

system is acceptable to users, meets a need as perceived by front line staff, such as occupational therapists, and helps users live more independently. It also pinpointed improvements that will enable wide-spread adoption in a COVID-safe fashion, such as virtual onboarding and simple algorithms to pre-empt user difficulties.

There are very few barriers to benefiting from BIH, save for basic literacy, access to any type of smartphone and a desire to work towards goals for independence.

BIH has the potential to prevent difficulties, reduce the use of support services and enable the step down of more costly care, thereby delivering better outcomes for users and saving the NHS and social care money.

### IMPACT

- » In use in 20% of English authorities (45% of London boroughs)
- » **Over 6,000 licenses** used to date
- » Real World evaluation demonstrated a return of investment of **£6 to £1 from direct savings and avoidable costs**
- » Highest rated digital tool for autism by ORCHA
- » In use in Canada
- » **500 patients benefited** through sales and **450 through user testing-trials**
- » Participants in the Techforce **19 programme and the NHS digital accelerator programme**
- » COVID-19: Available as a fully remote, round-the-clock support system since COVID



The support of SBRI gave us access to front line clinical staff who put our system through its paces and gave us invaluable feedback about how to make it truly scalable.

Louise Morpeth, CEO Brain in Hand



# Driving efficiency improvement in the NHS



**Competition: GP of the Future - Self Care**  
**Award: £800,000**

myGP provides a convenient, cost-effective communication platform to primary care. Its preGP signposting automation relieves the administrative burden on practices by directing patients to the most appropriate point of care.

Currently it is estimated that 27% of all face to face GP appointments could be managed by alternative means or at an alternate point of care. The acceleration of remote consultations in primary care because of COVID-19 has seen uptake of video consultations rise by almost 1,500% on the myGP platform.

The preGP element of the platform signposts patients based on their appointment reason to a more appropriate point of care, such as by telephone, nurse, or pharmacy. This innovation has reduced GP appointments by 26% - providing

patients with education to avoid the 'GP first' mentality in England.

SBRI Healthcare provided myGP with funding, resources and guidance while completing its preGP with video consultation offering. An independent budget impact analysis showed that the technology could potentially deliver cumulative net saving to the NHS of £5.6million in the years to 2025 with demonstrable return of investment to the NHS and the national economy.

The need for remote consultation throughout the pandemic speaks for itself; practices relied on technology like the myGP app for patients to contact the surgery and order repeat medication. Practices relied on the platform to hold video consultations and send SMS communications to patients. myGP continues to gain traction and is present in over 6,500 GP practices in England.

## IMPACT

- » Adopted in **6,500 sites**
- » **£3.5 million** funding leveraged from private investment in 2020
- » **63 members** of staff across two countries
- » Named in Sunday Times Tech Track Top 100 in 2019
- » COVID-19: worked closely with NHS Digital to adapt myGP app and implement video consultations across primary care. Awarded places on the DPS and GPITF frameworks, naming myGP as an approved supplier of video consultation services.

With demand to see a GP rising by 25% over the last five years, we wanted to build a technology solution so that the right person had access to the right care at the right time, making things simpler for both GPs and practice staff, as well as patients. SBRI Healthcare supported us both financially and with resources, meaning that we had access to people to soundboard our decisions, this made our job easier and the result for the patient simpler.

Tobias Alpsten, CEO, iPLATO Healthcare



**Competition: Mental Health and Mental Health: New Models of Care**  
**Award: £999,865**

A digital transformation in the IAPT 'referral to treatment pathway', including patient appointment booking and application of machine learning technologies, that improves workflow for therapists and outcomes for patients

The NHS Long Term Plan commits to expanding Improving Access to Psychological Therapies (IAPT) provision, doubling the number of patients seen annually by 2024. To achieve this ambition, a transformation in how care is delivered is required.

Mayden is harnessing historical IAPT data, from millions of patient contacts, in the SAPIO project to enhance and inform service delivery, enable faster time to treatment, more choice, improved outcomes, and significant cost savings.

SAPIO is developing a series of digital transformations and data-driven

insights throughout the IAPT referral to treatment pathway, incorporating:

- **Digitised, standardised self-assessment** for a more streamlined referral process
- **Direct patient appointment booking** for administrative efficiency and patient choice
- **Machine learning and advanced analytics** to enable prediction of patient engagement, and provide service-enhancing information directly to therapists

The impact of these technologies will depend on adoption. Early indications of uptake are positive. Based on various assumptions about how patient activity might change (numbers of self-referrals, self-assessments, use of digital platforms) initial assessment suggests overall economic benefit could be around £150 million per annum.

## IMPACT

- » **Over 60 IAPT services** have been engaged in developing the SAPIO innovations, with over 20 of those trialling, piloting or providing substantive feedback
- » **665 direct patient appointments** booked so far
- » Tens of thousands of confirmation SMS messages sent as part of improvements to direct patient appointment booking
- » Nearly **28,000 patients** have had access to the technology either through user testing or sales
- » **£23,500 revenue** from NHS sales so far

We like to work collaboratively with our clients on new technologies. However, the scope of our ambition with the SAPIO project was so wide that no one client would have been able to engage properly. By funding the entire project, SBRI Healthcare has greatly accelerated the development timetable and ensured broad client engagement throughout.

Chris May, CEO Mayden



# Transforming people's lives through patient-centred healthcare innovations



**Competition: Musculoskeletal Disorders**  
**Award: £754,109**

Transforming any place into a therapeutic exercise space, with validated AI-exercise rehabilitation software, including in water available on public download (B2C) and on customer-designed waterproof tablets (B2B).

Around one-third of the 18.8m people living with an MSK condition are over the age of 65, with an average of 52% of people this age living with a condition. MSK conditions for this group represent the primary cause of accidental mortality (falls fracture), loss of physical independence and early entry into a care facility.

It is essential that community MSK solutions are designed to be attractive and engaging for pro-active self-management and peer-led support and motivation to reduce the number of years lived in disability. We have completed patient insight Panel focus groups over the last two years to co-

design and develop Good Boost. This has been from the user interface and app navigation through to the features and function of the app.

Our solution is to overcome the primary barrier of pain during rehabilitation exercise by working in water and to overcome the barrier of motivation and digital exclusion by having group sessions in community facilities.

Good Boost addresses the NHS Long Term plan focus on digital health, creating community health solutions closer to home, adding a solution for social prescribers to signpost and support with provision as well as reactive therapeutic exercise.

Good Boost has supported a quarter of users from low-income households, cutting through inequality. The system is designed to support multiple languages, including the most spoken languages in the UK after English: Welsh, Polish, Gujarati, Urdu and Bengali to create an inclusive solution.



## IMPACT

- » **CE mark Class 1** Medical Device
- » **Tested in 13 leisure centres**, with 36 due for launch
- » Seven jobs retained/created
- » Demonstrate meaningful improvement in pain, function and quality life from baseline to 4, 8, 12 & 24 weeks, with 55% user retention at 12 weeks
- » Selected for Microsoft's 'AI for Good' accelerator and for the Institute for Ethical AI's Catalyst programme, won the 'Technology Award' at the London Sports Awards
- » Supported by Arthritis Action, the National Rheumatoid Arthritis Society, the National Axial Spondyloarthritis Society and Versus Arthritis
- » COVID-19: Awarded 'Business-Led Response to COVID-19' Innovate UK funding to develop a home app for land exercises to support people to manage their MSK conditions at home and maintain social distancing
- » Awarded Pool Product of the Year' 2020

**It's made a heck of a difference. It's taken me five years to find some exercise I can do. It came quite easy and it was enjoyable. I can now use my left leg to step up occasionally, and I could not do that before. I'm on my own, I can do something on my own!**

Nola, patient



**Competition: Addressing Functional Needs in the Elderly**  
**Award: £795,000**

Transforming outcomes in stoma patients with connected monitoring wearables and data-oriented health coaching, capable of identifying clinical issues and promoting healthy behaviours in an exceptionally high-risk patient group.

Founded in patient experience, 11 Health & Technologies was established by Michael Seres as a direct result of the problems he faced as a stoma patient. His first-hand knowledge of being a user has driven the patient ethos of the company.

The UK's ~120,000 ostomates are poorly served, with no technology to support their self-management or prevent typical complications like dehydration or peristomal skin problems. This results in a high cost of care to the NHS for readmission to hospital, unnecessary visits to the emergency

department (ED) and higher incidences of long-term kidney failure.

In response 11 Health & Technologies has developed an ecosystem that employs technology in three main areas: the development of a smart stoma appliance, the mobile applications that provide connectivity and visualisations and the cloud infrastructure used to support it. In clinical trials, readmissions have been reduced by 39% and ED visits by 67% with strong quality of life benefits reported.

Although Michael passed away in 2020, his passion for patient care lives on through a spirit of advocacy and patient-centeredness that can be felt at every level of the organisation. 11 Health & Technologies is now in a position to take its innovative and empathetic solution to market working in partnership with some of the leading hospitals in the world.



## IMPACT

- » **FDA certification and CE marking** for SmartBag and SmartWafer
- » **200+ patients** had access to the technology through clinical trials
- » Commercialisation taking place in the USA
- » **30-day readmissions** reduced by 39%, ED visits reduced by 67%
- » **60-day readmissions** reduced by 54.6%, ED visits by 48.4%
- » **90-day readmissions** reduced by 44.6%
- » **Gold standard accreditation** from the Joint Commission for SmartBag and SmartWafer supplies and tele-health support programme



**This product gives peace of mind to individuals like myself who want to feel in control of some things. Being a new ostomate it can be hard to know if what we're doing is right, if we're hydrated, or if our skin is okay. Having the smart bag and SmartCare app allowed me to feel a bit more confident.**

Unnamed 11 Health & Technologies patient

# Stimulating new models of care to help the most vulnerable population



**Competition: Integrated Care and Social Care**  
**Award: £90,023**

Powered by Artificial Intelligence and new accessible devices for the elderly, Bridgit empowers family carers to keep their loved ones well. Bridgit identifies the actions, services and products needed today, to keep our users well tomorrow.

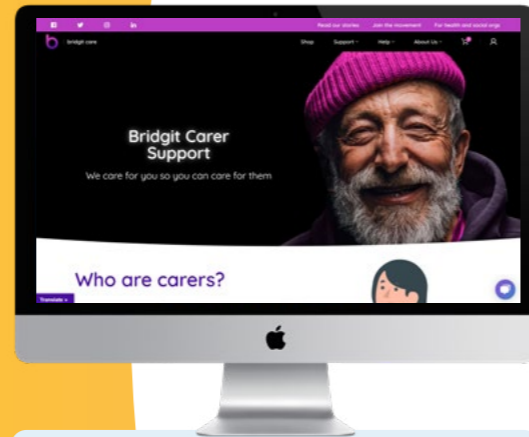
The NHS Long Term plan set our preventative care delivery as one of its three key priorities. Using traditional approaches, preventative care needs more resources in the social and community care services to deliver. This just isn't possible. We already have a UK shortage of 120,000 social care resources to deliver existing services. So how can we deliver preventative care?

With support from Microsoft and funding and guidance from SBRI

Healthcare, Upstream Health are answering this question. Upstream have developed a new type of home support solution called Bridgit, with the objective of empowering the UK's army of 6.5 million family carers to deliver this preventative care.

Based at the Hull Integrated Care Centre and working closely with patients, family carers and clinicians, Upstream have developed and trialled a new accessible 'home hub' that captures key information from the patient and their home, and uses AI to monitor and track care needs, then provide targeted support and direction to family carers.

This solution has the potential to deliver a £1.75 billion saving over five years, by supporting family carers to help their loved ones stay well and at home for longer and out of high cost services.



## IMPACT

- » **Five jobs created/safeguarded**
- » Established market partnerships with Microsoft, Kainos, IQVIA, Allscripts and Bytes
- » **Secured \$125,000 Microsoft funding** for additional hardware development with Microsoft to be their first Azure Sphere powered health monitor
- » Initiated deployment discussions with two local authorities, and one community trust
- » **Won the finals of 2020 EIT Health COVID response accelerator**
- » Named one of the **top 100 health-care technology companies** for export by the DIT
- » Involved in the **Clinical Entrepreneurs programme**

With Bridgit we can support the carer and the family members at the early stage of need and... give data to our service teams, to help prevent our patients from escalating. That's why it's key to our patient pathway here.

Eddie Niblitt, Service Development Manager, Hull



**Competition: Mental Health: Children and Young People's Mental Health**  
**Award: £1,063,514**

BfB Labs is a pioneering digital therapeutics company that is building future mental healthcare for children today, revolutionising the way they access and engage with effective therapeutic interventions.

One in eight 5 to 19-year-olds had at least one mental disorder when assessed in 2017 (NHS Digital). Early data suggests that anxiety levels in children and young people have doubled since the onset of COVID-19. Although 50% of all mental health disorders are established before the age of 14, up to 70% of young people do not get access to evidence-based support.

Lumi Nova is the first mobile game-based treatment for anxiety in children to be granted approval by the MHRA and provides a scalable intervention

that combines methodologically rigorous user-centred design, scientific and clinical evidence with the ingenuity of emergent gamification technology.

Lumi Nova has been co-created with users, the people that care for them, and is a scalable intervention that can be accessed by users, in ways that they want, when they need it, without adding to the burden on healthcare.

The programme has been invaluable, helping us to accelerate the development of an innovative intervention that addresses a clear need, and becoming one of the few digital therapeutic software regulated by the MHRA whilst also setting ourselves up as a high growth business.

BfB Labs is in advanced discussions with two NHS Trusts and two commissioned third sector organisations.

## IMPACT

- » Launched the product onto the market in August 2020
- » **15 jobs created/safeguarded**
- » Knowledge-sharing through content sharing and public speaking
- » **17 schools involved in user testing** and pilot trials and **170 young people reached**
- » CE marking
- » **Approved as software** as a medical device (MHRA)



From playing Lumi Nova, my daughter learned that she could reduce her fears by breaking them down step by step. It's great that her progress can be used in other settings and applied to other anxieties she might have in the future.

Parent

I'd really recommend Lumi Nova because it was really fun to play and it teaches you not to be scared or worry

User, aged 9

The development of Lumi Nova has been informed by a lengthy process of user engagement and expert involvement undertaken by BfB Labs with academics, clinicians, service managers, commissioners, games experts, education professionals, parents and children to ensure the intervention is accessible, promotes inclusiveness, is scalable, user-centred and has a robust clinical basis.

Manjul Rathee CEO, BfB Labs



# Boosting the innovation pipeline and attracting private investment



**Competition: Improving Outcomes in Musculoskeletal Disorders**  
**Award: £881,397**

Mogrify® has developed a proprietary suite of platform technologies that enable systematic identification of the key transcriptomic and epigenetic switches that drive the speed, efficiency and maintenance of cellular reprogramming. The Company is deploying these platforms to develop scalable ex vivo cell therapies and in vivo reprogramming therapies for diseases with a high unmet clinical need.

Load-bearing cartilage of the knee and hip is made up of chondrocytes. This cartilage is commonly injured or degenerated due to sports-related defects and osteoarthritis (affecting more than 30 million adults in the United States alone). Current treatments only focus on addressing the symptoms, for instance, pain or inflammation, and in some cases result in total joint replacement.

Rejuvenating the chondrocytes is key to repairing damaged cartilage as it sustains mobility and maintains patient quality of life. Autologous Chondrocyte Implantation is one of the few approved cell therapies and the only current status quo for cartilage defect repair; however, it does not scale because chondrocytes cannot be expanded. Leveraging its unique cellular reprogramming technology, Mogrify has developed a proprietary fibroblast-to-chondrocyte conversion. The cellular reprogramming enabled by Mogrify could allow both cellular conversion technology, Mogrify is developing its proprietary fibroblast-to-chondrocyte conversion.

The cellular conversions developed by Mogrify will allow both the scalable production of chondrocytes in vitro for use in autologous and allogeneic chondrocyte implantation for cartilage defects, and an in vivo reprogramming therapy to reverse the pathophysiology of osteoarthritis.

Mogrify represents a unique opportunity to transform the development of ex vivo cell therapies and pioneer in vivo reprogramming therapies. The availability of SBRI Healthcare funding (Phase I and Phase II) has allowed the company to assess its regenerative cartilage therapy, establishing proof-of-concept and enabling progression through pre-clinical safety and efficacy studies in vivo.

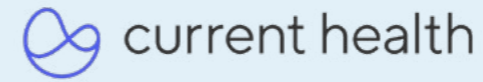
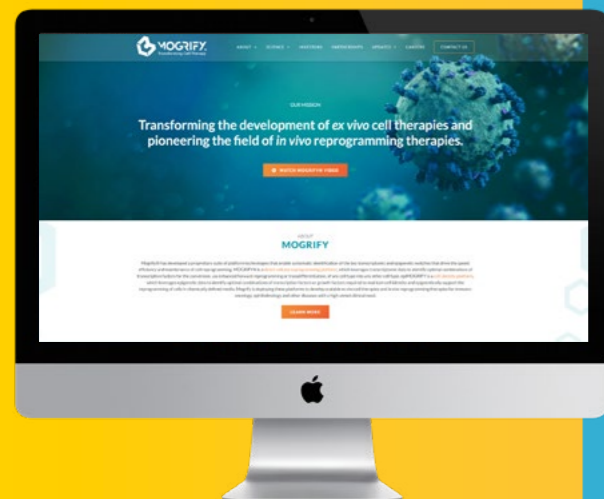
## IMPACT

- » **£15,000,000 VC funding** leveraged
- » **Eight jobs created/safeguarded**
- » **Exclusive license agreement with Sangamo Therapeutics** to develop allogeneic cell therapies using the proprietary cell conversion platform
- » **Recognition from industry peers for innovation** (MSD's innovation award, Scrip 2019)
- » **Reversing disease at its core** in osteoarthritis paper published



We select projects strategically based on both commercial and scientific considerations and are delighted with the progress funded by this NHS England initiative. The continued support for our musculoskeletal asset from SBRI Healthcare has not only allowed us to reach this phase but will enable us to take the project through the efficacy and safety studies necessary to see it make a difference to patients as we now start planning for the clinical stages of the development.

Dr Karin Schmitt, Chief Business Officer, Mogrify



**Competition: Reducing pressure on Urgent and Emergency care**  
**Award: £999,694**

Current Health's leading full-service remote health monitoring platform, allows healthcare to be transitioned from the hospital to the home.

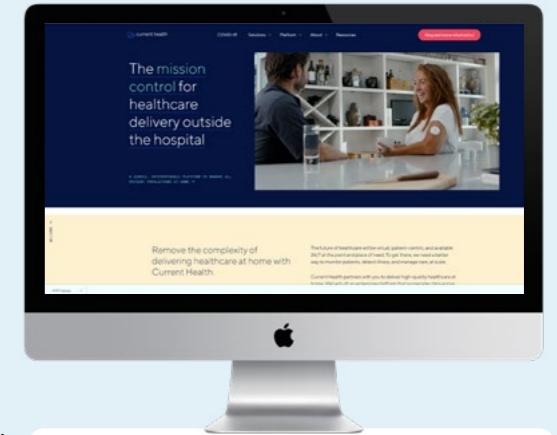
One key goal set out in the NHS Long Term Plan is to boost out-of-hospital care in order to maximise the number of patients who can be treated without being admitted to hospital. It outlines digital technology as a key enabler of this transformation.

As organisations seek to shift more healthcare out of the hospital and into the community, maintaining visibility of patient's health can become challenging. Current Health's platform captures an unprecedented level of ICU-grade data from the patient at home, including continuous vital signs and symptoms.

Current Health's state of the art machine learning identifies patients at-risk of deterioration, allowing community healthcare teams to

intervene proactively. As a result, patients can stay healthier and safer at home, with a lower cost of healthcare delivery.

Kickstarted by SBRI Healthcare in 2015, Current Health has grown from 10 to 65 employees and in 2019 closed a £9 million series A round led by MMC Ventures with participation from Par Equity, Scottish Enterprise's Scottish Investment Bank, and life insurer and asset manager Legal & General. This investment has permitted Current Health to scale its operations significantly to support its growing customer base which currently consists of 16 NHS Trusts as well as several US health systems and pharmaceutical companies. With the Current Health platform, customers have been able to shorten hospital stays, reduce hospital readmission rates, improve patient satisfaction and deliver better patient outcomes.



## IMPACT

- » **FDA approved and CE marked**
- » **10,000 patients reached** through sales across UK & USA
- » In use in **16 NHS sites**
- » Exporting in USA
- » **£16 million private funding** leveraged
- » **65+ jobs created**
- » **COVID-19:** Current Health has been deployed to care homes across North West London where it has successfully prevented 87% of hospitalisations



With Current Health, we've seen the ability to deliver intervention at a far earlier point and prevent hospital readmission.

Neil Perry, CIO, Dartford & Gravesham NHS Trust





# Supporting companies' growth and wealth creation in the UK and overseas



**Competition: Technology In Surgery: Preoperative Surgical Simulation Technologies**  
**Award: £1,098,850**

LapAR™ addresses the growing demand for connected distance learning in surgical education. The product enables highly realistic training in keyhole surgery, improving surgical skill in a safe and controlled environment.

SBRI Healthcare funding enabled the company to develop three proprietary technologies across Augmented Reality and Computer Vision. These were combined with its basic box simulators to produce a paradigm shift in affordability, accessibility and realism in surgical training.

The product has seen a rapid adoption since launch with nearly 100 systems sold in the first month. A key driver has been the need to maintain/re-skill surgeons in the face of disruptions to traditional training caused by COVID-19. These disruptions have highlighted the need for widespread change to traditional surgical training in order to future proof the specialty; LapAR™ meets these needs.

By increasing the frequency and volume of high-fidelity simulation, LapAR™ should lead to improved surgical skill and proficiency, resulting in improved patient care and major cost savings to the NHS.



## IMPACT

- » **LapAR™ product market launch** in July 2020, and pre-orders secured
- » **£60 million+ per year estimated NHS saving** through improved operative efficiencies alone
- » Ongoing test bed studies led by Health Education England
- » Manufacturer and distributor of LapPass® skills bases
- » Exports in US/Australia markets
- » **£700,000 private investment** leveraged
- » **Five new jobs created/safeguarded**
- » Clinical Entrepreneur Programme alumnus
- » **COVID-19:** converted manufacturing lines to aid in the production of ventilators



We have integrated LapAR™ into our national training programmes for colorectal and gynaecology surgery. The LapAR™ not only enables us to meet our long term goals for our professional education activities but also allows these to continue in the face of disruption from COVID-19.

Kelly Stacey, Head of Professional Education, Olympus UKIE



**Competition: Cancer**  
**Award: £1,094,772**

Owlstone Medical is deploying Breath Biopsy® to detect volatile organic compounds (VOCs) on breath as early markers of disease or in precision medicine for illnesses including cancer, liver disease, and respiratory disease.

Owlstone Medical is working to save hundreds of thousands of lives and billions in healthcare costs through breath-based diagnostics. We expect to have our greatest impact in areas of high clinical need such as oncology, respiratory disease and liver function through the early detection of disease and advancement of precision medicine. SBRI Healthcare has supported the development of Breath Biopsy by providing funding for our LuCID (Lung Cancer Indicator Detection) study, focused on discovery of VOC biomarkers for early detection of lung cancer.

With the help of SBRI and others, we have already undertaken significant exploration of breath as a sample type for lung cancer. Early detection of lung cancer is an area of high interest as around 75% of cases are diagnosed at later stages. We are investigating the application of our EVOC® Probe approach to provide high sensitivity cancer detection on breath in a way that could be applied for widespread screening.

In December 2019, a novel strain of Coronavirus surfaced in China and has since spread across the world. Today Owlstone Medical is deploying our platform to address the challenge in two ways: by supporting research studies exploring aspects of COVID-19 infection including outcomes and risk factors; and by exploring how breath can be used as an alternative sample type.



## IMPACT

- » **Raised c.\$97 million** private investment A
- » Studies underway in oncology (lung and colon), respiratory disease (asthma/COPD), liver disease (NASH/NAFLD), and environmental exposure
- » Breath Biopsy in use in **over 100 sites worldwide**
- » **CE marked and FDA approved**
- » Working with leading pharma and academic partners including AstraZeneca, J&J, GSK, and Cleveland Clinic



SBRI Healthcare support was instrumental in launching Breath Biopsy to detect disease earlier and to fight it more effectively. This has helped us to build a reliable discovery platform that produces robust results and is versatile to a range of applications with clinical relevance, including for respiratory and liver diseases.

Billy Boyle, CEO, Owlstone Medical

# Contributing to the nation's response to COVID-19

The COVID-19 pandemic has shown all of us the vital importance of science and innovation. Organisations of all shapes and sizes have worked tirelessly to respond to the crisis in innovative new ways, and the emergency has demonstrated that processes for development can be accelerated.

We have a once-in-a-generation opportunity to unleash a new wave of innovation. The pandemic has been a great disruption to our lives, but has also demonstrated that research and innovation are a valuable asset to the country, and that people are at the heart of what is done.

A great number of companies supported by SBRI Healthcare have been key players in this effort, having

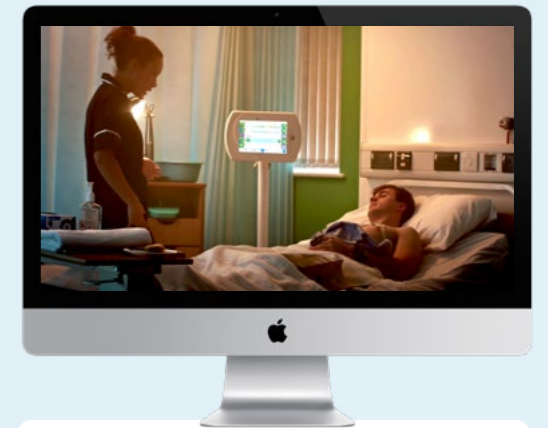
repurposed technologies to address the COVID emergency, deploying staff towards the support of the pandemic or offering their facilities and expertise. One of these stories is highlighted below - from Isansys and others are reported in previous sections.



**Competition: Patient Safety**  
**Award: £1,099,918**

Isansys has developed the Patient Status Engine, the world's first clinically certified end-to-end real-time continuous patient data capture and analysis platform for remote patient monitoring in hospital and at home.

By seamlessly automatically collecting, analysing and transferring data from monitoring devices to the EMR, the system eliminates time to manually record/input data; improving hospital workflows, increasing efficiencies and productivity, supports frontline staff and provides early warning of deterioration enabling clinical care to be escalated fast.



The Patient Status Engine (PSE) is a Class IIa CE-Marked and FDA cleared unique, end-to-end medical device, which uses wireless body-worn sensors, including the Isansys Lifetouch cardiac monitoring smart patch and the Lifetemp wireless thermometer to collect and analyse heart rate, respiration rate, heart rate variability, ECG, temperature, oxygen saturation and blood pressure.

We have recently seen a surge in orders for the PSE, as hospitals fighting the battle against COVID-19 deploy it to rapidly increase capacity and numbers of higher dependency beds and isolation wards, using it to provide high grade monitoring of patients at home or other locations outside the hospital itself. Inherently scalable, we worked with partners and suppliers to ramp production quickly to meet the demand from the UK and abroad. Ensuring patients can be monitored efficiently and remotely and those deteriorating get timely access to critical care, is vital. Protecting frontline medical staff from infection is key.

The PSE is able to address the requirement for improved and more efficient patient monitoring, against a backdrop of an increasing demand for healthcare services.

## IMPACT

- » World's first clinically certified, Class IIa **CE-Marked and FDA cleared**, end-to-end platform as a medical device
- » On the market and revenues generated
- » **3,000+ patients** benefited to date
- » **20+ new customers** acquired
- » Exports systems to Europe (Norway, Denmark, Germany, Italy) USA, India, Singapore, Thailand, Singapore, Australia
- » **£4 million private investment** leveraged
- » **14 new jobs created/safeguarded**
- » **Eight patents awarded**
- » **COVID-19:** monitoring in hospital at Manchester Royal Infirmary, and on patients at home with The Christie Hospital

“  
SBRI Healthcare funding has enabled Isansys to make appropriate developments that are aligned perfectly with its strategic focus as a business. It sped up the technology development at that time and enabled us to significantly increase the size of our team from 8 to 14; it catalysed partnership opportunities, increased interest and credibility with future investors and created exposure to, and increased credibility with, prospective customers, particularly those in the NHS.

Keith Errey, CEO, Isansys Lifecare



## SBRI HEALTHCARE

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