From Insight to Impact

Health Innovation in the West Midlands

October 2026 Edition

A Region Where Capital Is Following The Science

The West Midlands has become one of the UK's most active environments for health technology innovation and the capital is following.

Between April 2023 and February 2026, £18.5m of public investment through the West Midlands Health Tech Innovation Accelerator (WMHTIA) catalysed £76.9m of co-investment into the regional health technology ecosystem. Of that £76.9m, £53.8m came from private sources and £23.1m from public sources - the private share alone represents a 2.9× multiplier on Innovate UK's investment.

Across this period, 329 companies engaged with the support being made available. 174 received intensive bespoke commercial development support across 21 academic, clinical, manufacturing, regulatory and professional services partners. 28 new health technology companies have been formed; 144 jobs have been created or safeguarded; six products have been procured by the NHS through challenge-led innovation and thirteen patents have been granted across UK and international jurisdictions.

Behind those numbers sits a deliberately constructed regional innovation system: a single front door for founders, demand-led engagement with the NHS as a co-creator of innovation rather than a downstream buyer, and a coordinated pipeline of expertise spanning research and development, regulatory, manufacturing and commercial readiness.

The companies featured on the following pages are a cross-section of that pipeline. They are presented in order of commercial maturity - beginning with businesses already in market and scaling internationally, progressing through to earlier-stage ventures developing platform technologies for the next wave of deployment.

Across stage and domain, they represent a region that is delivering on the promise of insight to impact: translating clinical, academic and engineering knowledge into commercial outcomes that matter to patients, the NHS and investors.

From Fragmentation To A Coordinated System

Before the WMHTIA, the regional health innovation landscape was fragmented and difficult to navigate. Multiple longstanding initiatives operated independently across universities, NHS trusts and innovation networks, with limited shared strategy and no single point of access for founders. Companies often progressed slowly - not because the expertise was not present in the region, but because finding the right combination of it took time the commercialisation window could not afford.

The WMHTIA was established in April 2023 as a deliberate response to that complexity. Funded initially with £14.5m from Innovate UK on behalf of UK Research and Innovation and the Department for Science, Innovation and Technology, and extended through a further £4m in 2025, the programme brought together 21 partners spanning four universities, three regional networks, an NHS Trust, a GP partnership, a Research and Technology Organisation, and professional services covering legal, regulatory, financial and IP advice.

The result was a single coordinated front door - and behind it, the full spectrum of support a health technology business needs to move from concept to commercialisation:

- Intellectual property, legal and regulatory advice
- Product design, electronics, software and AI development
- Patient and public involvement, clinical trials support and NHS testing environments
- Medical device prototyping and manufacturing
- Business development, investor introductions and fundraising support

Companies engaged once to access the available expertise across the full innovation pathway. This is the structural feature investors and stakeholders are responding to - not the presence of any single capability, but the coordinated assembly of all of them around each business.

Why This Matters Now

Health technology is a strategically important growth sector for the UK and a material economic opportunity for the West Midlands.

As set out in the WMHTIA Pathfinder Report, the healthcare and medical technology sectors generate £17 billion in economic activity annually at national level, with the market projected to reach £21 billion by 2027, and the HealthTech sector employs 145,700 people across 4,300 companies with a combined turnover of £30 billion. Yet regulatory and commercialisation friction continues to push products out of the UK: in 2024 a third of HealthTech companies removed products from the UK market, reporting on average that 20% of their portfolio was at risk - an improvement on the 46% of companies withdrawing products in 2023, but a persistent drag on the sector. Against that backdrop, the West Midlands Plan for Growth identifies a further £400m to £430m of output and 5,300 to 5,900 jobs available in the region's HealthTech cluster by 2030 if it matches the trajectory of leading UK life sciences clusters.

The WMHTIA model was designed to convert the region's strengths into commercial outcomes (data at February 2026):

£76.9m of co-investment now flowing into regional health technology	**2.9×** capital multiplier on public funding	**174** enterprises in intensive commercial development	**21** academic, clinical, manufacturing and professional partners
28 new health technology companies formed	**144** jobs created or safeguarded (72.5 FTE)	**6** products procured by the NHS via challenge-led programmes	**13** patents granted across four supported companies
38% of secondary grant scheme companies were female-founded	**33%** of secondary grant scheme founders from ethnically diverse backgrounds	**73%** of enterprises intensively supported are West Midlands based	**9** challenge-led programmes with West Midlands NHS Trusts

Sources: WMHTIA Pathfinder Report (November 2025) and Pathfinder Report – Year 3 Extension (April 2025 – March 2026), University of Birmingham, September 2026; ABHI, Pulse of the Sector: 2024 Business Survey; WMCA, West Midlands Plan for Growth.

A Region Built On Decades - In Some Cases Centuries - Of Health Technology

The West Midlands is the UK's largest medical technology cluster, anchored by established regional players whose work over decades - and in some cases centuries - has built the infrastructure today's innovators draw on.

Salts Healthcare

Since 1701

Traces its origins to a Wolverhampton locksmith's apprenticeship in the early 1700s and has remained family-owned across ten generations. In 1948, at the request of Birmingham General Hospital's Professor Brian Brooke, the company made what became the UK's first ostomy collection bags - a product line that anchors its business today across NHS supply and international markets, run from its base in Aston, Birmingham.

Kimal

Founded 1964

Founded in 1964 by George and Diana Press from a shed at the bottom of a council house garden, named after their two children, Kim and Alan. Sixty years on, it is one of the UK's most respected specialty medical device manufacturers, headquartered in Worcester and supplying more than two million custom procedure packs and vascular access devices each year across over seventy countries.

Midland Medical Technologies

£100m exit, 2004

Birmingham-based, developed the Birmingham Hip Resurfacing system - pioneered by orthopaedic surgeons Derek McMinn and Ronan Treacy and used by patients including Andy Murray. MMT was acquired by Smith & Nephew in 2004 for up to £100 million.

The Binding Site

$2.8bn exit, 2023

Began as a University of Birmingham Medical School spin-out in 1983, founded by Professor Jo Bradwell to commercialise the team's early-1970s research into antibody production. The company launched the Freelite myeloma diagnostic assay in 2001, built a global distribution network across more than sixty countries, and - while retaining close ties to the University - was acquired by Thermo Fisher Scientific in 2023 for approximately $2.8 billion in the region's largest health technology exit to date.

This is the heritage today's regional innovators continue to draw on, and the two profiles that follow are among its most visible contemporary examples - both businesses that chose the West Midlands deliberately. Nonacus, founded in Birmingham in 2015, developed its bladder cancer test with the University of Birmingham after its co-founder searched the Oxford-Cambridge-London corridor and judged the region to offer closer proximity to hospitals, the medical school and cancer science. Rem3dy Health was founded in Birmingham by American entrepreneur Melissa Snover, who chose the city as the home for the world's first 3D-printed personalised vitamin manufacturer, drawn by the universities, manufacturing talent and supply chain depth concentrated within ten miles of it.

Nonacus

Birmingham cancer genomics: a non-invasive urine test helping clinicians decide who needs urgent cystoscopy

THE CHALLENGE

Bladder cancer affects more than 100,000 people in the UK, with around 10,900 new cases and 5,900 deaths a year. The standard diagnostic is cystoscopy - invasive, uncomfortable and expensive - yet most diagnostic cystoscopies do not result in a bladder cancer diagnosis, putting significant pressure on capacity. Over 70% of non-muscle-invasive patients relapse, bringing repeat cystoscopies under surveillance. Five-year survival is around 80% at stage 1 and around 10% at stage 4.

THE INNOVATION

GALEAS Bladder is a non-invasive genetic urine test that detects bladder cancer from a sample the patient can provide at home, reading a 23-gene panel that covers the somatic mutations found in 96% of bladder cancers. It was co-developed with Professor Rik Bryan and Dr Doug Ward at the University of Birmingham's Bladder Cancer Research Centre, with Cancer Research UK funding. A prospective real-world evaluation of 964 patients across seven NHS urology departments found GALEAS Bladder detected 71 of 77 bladder cancers (92%), including all 17 muscle-invasive cancers and 35 of 36 high-grade cancers, with a negative predictive value of more than 99%.

WHY IT MATTERS

GALEAS Bladder helps clinicians identify who needs urgent investigation and where immediate cystoscopy may safely be deferred, in a pathway where most diagnostic cystoscopies do not find cancer - with the potential to reduce NHS diagnostic costs and capacity pressures. It also detects recurrence before cystoscopy can, which matters for the majority who relapse. In June 2025 it entered the European Association of Urology Guidelines for non-muscle-invasive bladder cancer surveillance.

WEST MIDLANDS CONTRIBUTION

Nonacus is a West Midlands company by choice. Co-founder Chris Sale searched the Oxford-Cambridge-London corridor before settling on Birmingham, starting at the BioHub accelerator at Birmingham Research Park - a single bench and desk. Location mattered more than cost: the Park sits beside two large hospitals, the medical school and the University's cancer sciences, and in Sale's words “our proximity to key partners was critical to the pace of innovation”. That proximity produced GALEAS Bladder, through eight years of collaborative research with the University of Birmingham's Bladder Cancer Research Centre - recognised with the Medilink Midlands Business Award for Partnership between Academia and Business in April 2026. In August 2025 Nonacus, the University and Cancer Research UK together invested £5m in two West Midlands-based trials that will assess 5,000 patients; the second is led by seven NHS trusts, four of them in the Midlands. The company moved to purpose-built Birmingham laboratories in 2022.

CURRENT FOCUS

Rolling the test out across the West Midlands, where every hospital trust is due to adopt it by April 2027, and completing the two trials that would underpin wider NHS use. Expanding beyond the 30-plus countries already supplied, and expanding Nonacus's work in tumour profiling and hereditary cancer.



Nonacus's Birmingham laboratory, which has hosted ministerial and mayoral visits.

STAGE

Commercial and scaling. Founded 2015; UKCA-marked in vitro diagnostic; ISO 15189:2022 accredited service; revenue-generating through BUPA, the UK private hospital network and distribution across more than 30 countries; now entering NHS practice.

IMPACT

Supports triage of patients presenting with haematuria from a urine sample posted from home, in a pathway where most diagnostic cystoscopies do not detect cancer.

A real-world NHS evaluation of 964 patients across seven urology departments detected 92% of bladder cancers, with a negative predictive value above 99%.

In the European Association of Urology Guidelines for non-muscle-invasive bladder cancer surveillance, June 2025.

Adopted by University Hospitals Coventry and Warwickshire, the first West Midlands trust to offer it.

Waiting for a bladder cancer diagnosis is incredibly difficult for patients, and people who do have cancer can be stuck in the same queue as everyone else. GALEAS helps clinicians identify who is most likely to have cancer sooner, so those patients can get the investigations and treatment they need faster. It means faster answers for patients and helps the NHS focus capacity on the people who need it most.

JEFF BOUSFIELD, CEO, NONACUS

Rem3dy Health

Birmingham-based: patented 3D-printed personalised nutrition (Nourished) and medicine (Scripted), built on regional manufacturing heritage

THE CHALLENGE

Mass-market vitamins and supplements are sold off-the-shelf in standardised dosages. Real-world health and nutritional needs vary significantly between individuals - by age, condition, lifestyle and goal - but the supply chain has historically been geared to mass production at standard formulations rather than personalisation at scale. The result is products that meet the average rather than the individual.

THE INNOVATION

Founded in 2019 by registered nutritionist Melissa Snover, Rem3dy Health uses patented 3D-printing technology and a vegan encapsulation formula, both developed in-house, to manufacture bespoke nutrient gummies (Nourished) and personalised medicines (Scripted) at scale. Each Nourished gummy is a seven-layer nutrient "stack" customised from a short online health questionnaire, with more than 10 million possible nutrient configurations printed on demand at the company's Smethwick facility in Birmingham. The company holds 29 patents.

WHY IT MATTERS

Personalisation at manufacturing scale is the technical barrier that has held back consumer-led personalised health. Rem3dy Health's combination of 3D printing and vegan encapsulation makes it economically viable, with proven retail and pharmacy distribution channels. The Scripted extension into personalised medicine takes the same architecture into a regulated category with significant addressable demand.

WEST MIDLANDS CONTRIBUTION

Founded in Birmingham by American entrepreneur Melissa Snover: she chose the city specifically because of the concentration of 3D-printing expertise within ten miles - Aston University, the University of Birmingham and Birmingham City University all run 3D-printing programmes - and because Digbeth's regenerated manufacturing heartland gave the new business its first home, with the space, the talent pool and the start-up community it needed. Future Planet Capital Regional first invested £500,000 in September 2025 through the West Midlands Co-Investment Fund - a £25m vehicle backed equally by the West Midlands Combined Authority and the West Midlands Pension Fund - and joined the June 2026 round, connecting regional public-backed capital to the company's next phase of growth. The West Midlands Growth Company has supported the business with PR and marketing, including securing Financial Times coverage of its investment. Rem3dy sits squarely within the region's longer manufacturing-and-laboratory heritage rather than alongside it.

CURRENT FOCUS

Deploying the June 2026 round to enter the US, MENA and India; advancing AI-driven personalisation and advanced manufacturing; and extending the platform into personalised health products for pets.



NOURISHED

MELISSA SNOVER, CEO

STAGE

Commercial, scaling internationally. £14m funding closed June 2026 at an £84m valuation; investors include Suntory, Estrella Galicia, Apollo Hospitals, UPSA and Future Planet Capital Regional (manager of the West Midlands Co-Investment Fund). 2025 revenue £10.2m, up 61% year on year.

IMPACT

£14m funding closed June 2026 at an £84m valuation; international expansion underway across the US, India and the MENA region, with personalised health products for pets as a new category.

Production capacity of 500,000 personalised gummies per day; more than 60 million gummies sold worldwide across 35,000+ retail locations, including Boots, Holland & Barrett and Ocado in the UK and 12,000+ pharmacies across Europe.

29 patents; King's Award for Enterprise in Innovation (2023); named in the inaugural Sunday Times 100 Tech list of Britain's fastest-growing private technology companies (January 2025).

"Within 10 miles of Birmingham alone there are fantastic universities which all have 3D-printing programmes. We wanted to be close to the experts so we could create the best, most innovative product possible."

MELISSA SNOVER, FOUNDER & CEO, REM3DY HEALTH

Established Through Regional Health Innovation Support

Before turning to the WMHTIA-supported pipeline, four established commercial businesses illustrate what the region's longer-term investment in health innovation support makes possible. Each has built sustained scale through the West Midlands' wider health innovation infrastructure - NHS Trust partnerships, regional incubators, hospital clinical anchors and the regional support architecture. They sit here not as pipeline showcases but as evidence of the ecosystem this brochure goes on to map.

The West Midlands Academic Health Science Network was established in 2013 as one of fifteen AHSNs charged with getting innovation into the NHS; it became Health Innovation West Midlands in 2023 and is a WMHTIA partner today. From 2016 its digital-health incubation ran through Serendip, the challenge-led incubator that opened that March in the iCentrum building at Innovation Birmingham (now Bruntwood SciTech), where the AHSN was a founding partner and co-led the Digital Health quarter. Many of the region's health-tech businesses passed through that support; the four below are examples of Serendip participants that saw the value of staying in the West Midlands and building here. Medilink Midlands has provided the sector's membership network and commercial support across the same period, and University Hospitals Birmingham and Birmingham Women's and Children's have acted as clinical anchors and, in Medstars' case, investor. The Innovation Accelerator funding that created WMHTIA in 2023, and extended it in 2025, built on that base; the opening of No.1 Birmingham Health Innovation Campus and the Precision Health Technologies Accelerator in 2025 gives it a physical home. They are what a decade of that infrastructure produces.

2013
WMAHSN established - one of 15 Academic Health Science Networks

2016
Serendip opens in the iCentrum building at Innovation Birmingham, with a Digital Health quarter co-led by WMAHSN

2023
WMHTIA launched with £14.5m Innovation Accelerator funding; WMAHSN becomes Health Innovation West Midlands

2024
SPARK The Midlands launched at Aston University - first UK branch of Stanford's SPARK

2025
WMHTIA extended (£4m); No.1 Birmingham Health Innovation Campus and PHTA open

2026
Year 3 concludes; learning carried into the West Midlands Local Innovation Partnerships Fund

Kaido Wellbeing

Kaido

A workplace wellbeing platform running team-based health challenges for employers.

500K+ employees engaged across 250+ companies; backed by University Hospitals Birmingham NHS Foundation Trust.

Altruist

altruist

Workplace and school mental health training, consultancy and coaching.

500+ organisations partnered since 2013; Birmingham community outreach reaching 1,600 young people.

Medstars

Medstars

Clinician-founded employee healthcare, built around the Aria wellbeing app.

NHS-invested and founder-led by practising consultants at Queen Elizabeth Hospital Birmingham and Birmingham Children's Hospital.

B13.ai

B13.ai

AI that de-risks software development before the build begins.

16-year-old Birmingham software consultancy; Greater Birmingham Chamber of Commerce 2026 Pioneer Award winner.

Kaido Wellbeing

Birmingham-based workplace wellbeing platform - team-based behaviour-change challenges

THE CHALLENGE

Workplace mental health, lifestyle disease, and stress-related absence costs UK employers billions annually and places sustained pressure on the NHS. Most employee wellbeing programmes struggle with sustained engagement - well-intentioned launches fade within days. The result is significant spend with limited measurable impact, leaving HR and clinical teams without reliable tools to drive behaviour change at scale.

THE INNOVATION

Kaido is a holistic behaviour-change platform delivering four-week gamified challenges across activity, mental health, nutrition and sleep. Employees earn Kaido points for lifestyle improvements, supported by tailored content and bespoke management reporting that gives employers measurable engagement data. The model - team-based challenges rather than individual, self-serve interventions - is designed to drive sustained behaviour change rather than episodic engagement.

WHY IT MATTERS

A workplace wellbeing platform proven to engage half a million employees across 250+ employers addresses one of the largest preventable cost categories in UK business. The combination of scale, public sector backing, and major employer adoption (HSBC, QBE, Accenture) provides credibility for further deployment across public, healthcare and corporate contexts.

WEST MIDLANDS CONTRIBUTION

Kaido is headquartered in Birmingham, with strategic backing from University Hospitals Birmingham NHS Foundation Trust - one of the region's anchor health institutions. Public sector partnerships also include EIT Health, the Academic Health Science Network and Creative England, providing development capital and access to clinical, innovation and creative industry networks.

CURRENT FOCUS

Scaling the SaaS platform across additional enterprise customers; expanding the public sector partnership base; deepening evidence on behaviour-change outcomes across the engaged employee population.



Kaido

RICH WESTMAN, FOUNDER

STAGE

Commercial. SaaS subscription model. Over 500,000 employees engaged across 250+ companies. £1m+ revenue generated.

IMPACT

Trusted by major employers including Accenture, HSBC, QBE Insurance and the NHS.

500,000+ employees engaged across 250+ companies - scale that supports robust behaviour-change measurement.

Public sector backing from University Hospitals Birmingham NHS Foundation Trust, EIT Health, AHSN, and Creative England.

"The early support, networks and partnership opportunities available across the West Midlands have been absolutely crucial in helping Kaido evolve into a sustainable, profitable business supporting hundreds of thousands of employees around the world."

RICH WESTMAN, FOUNDER, KAIDO WELLBEING

Altruist

Birmingham-based mental wellbeing social purpose organisation - workplace and schools

THE CHALLENGE

Workplace mental health remains a significant cost to UK employers and a structural strain on the NHS. Schools face a parallel challenge with adolescent mental health. Most off-the-shelf wellbeing training fails to drive sustained cultural change; organisations want evidence-based, tailored intervention rather than generic content delivered once and forgotten. Quality of intervention matters more than volume.

THE INNOVATION

Founded in 2013, Altruist delivers tailored mental health and wellbeing training, consultancy and coaching to organisations globally.

Altruist supports organisations to develop and implement a Wellbeing Strategy. As part of this, Altruist offers a three-tier training approach:

Step 1: Establish an effective Mental Health First Aider network.

Step 2: Develop managers' capability to support mental health and neurodiversity awareness.

Step 3: Support the wider workforce through Lunch & Learns and more in-depth courses.

This approach helps embed wellbeing across all levels of the organisation.

WHY IT MATTERS

Workplace and school mental health is an area where quality, consistency and long-term impact matter more than the volume of interventions delivered. Altruist combines practical consultancy, evidence-based training and coaching to help organisations and schools build sustainable approaches to wellbeing that drive culture change, rather than relying on one-off initiatives.

WEST MIDLANDS CONTRIBUTION

Based in Birmingham, Altruist has benefited from support provided by the West Midlands Academic Health Science Network (WMAHSN, now Health Innovation West Midlands), School for Social Entrepreneurs, NatWest Accelerator, Greater Birmingham Chambers of Commerce, University of Birmingham and Coventry University.

CURRENT FOCUS

Continuing to expand our reach globally, further developing our neurodiversity training and consultancy offering, and growing the Altruist Wellbeing Forum as a strategic network that helps HR professionals and wellbeing leaders share best practice, build capability and embed wellbeing within their organisations.



altruist

KATIE BUCKINGHAM, FOUNDER

STAGE

Commercial. Social purpose organisation founded in 2013.

IMPACT

Partnered with 500+ businesses and schools to implement effective wellbeing programmes.

Trained and supported more than 20,000 individuals consisting of managers, employees, teachers, young people and community champions.

Delivered free Mental Health First Aid training to young charity workers. 53 young professionals certified as Mental Health First Aiders from 36 charities across the UK.

"Making wellbeing a priority for businesses and schools."

KATIE BUCKINGHAM, FOUNDER, ALTRUIST

Medstars

Clinician-founded employee healthcare: the Aria wellbeing app, backed by real doctors

THE CHALLENGE

NHS and corporate workforces are facing a mental health crisis, and there is little in place to catch problems early. Anxiety, stress and depression are now the most common reasons NHS staff are off work, accounting for more than 638,900 full-time equivalent days lost and around a quarter of all sickness absence. The NHS 10 Year Health Plan aims to cut sickness absence to its lowest recorded level, and it openly recognises burnout, bureaucracy and attrition. Yet the gap between need and support remains; services are overstretched, waiting times are long, and employees reach clinical care too late, at greater cost to them and their organisations.

The problem runs wider than the NHS. Private employers are losing staff to stress and burnout, and existing support often arrives too late. Employees who seek help face a fragmented system with little guidance on where to turn.

THE INNOVATION

Aria, Medstars' AI-powered wellbeing companion, supports staff before problems become absence. It is available 24/7, anonymous and multilingual, grounded in CBT and moderated by clinical psychologists. When more help is needed, Aria offers personalised therapy techniques and connects users to real clinicians: same-day Medstars GP appointments, specialist matching through the Concierge team, and at-home health testing. Personal data never leaves the user's device. Employers get anonymous, real-time insight into where pressure is building, so they can act on patterns without seeing who is struggling.

WHY IT MATTERS

Most workplace support only starts once someone is already unwell. By combining 24/7 wellbeing support with direct access to doctors, Medstars moves workforce health from reactive to preventive. That matches the NHS 10 Year Health Plan's direction, and the approach is backed by clinical evidence and live NHS deployment.

WEST MIDLANDS CONTRIBUTION

Medstars' clinical founders practise at Queen Elizabeth Hospital Birmingham and Birmingham Children's Hospital, which anchors the platform's clinical credibility in the region. Medstars has received equity investment from West Midlands NHS Innovation. Active partnerships using Aria include Birmingham Women & Children's Hospital, reflecting a growing regional NHS footprint. The platform reflects the wider ecosystem connecting NHS clinical leadership with health-tech innovation across the West Midlands.

CURRENT FOCUS

Medstars is scaling Aria across NHS trusts, emergency services and private employers, supported by a further fundraising round in 2027. The GP, Concierge and testing services run alongside Aria as one connected offer, which places Medstars at the intersection of patient navigation and proactive workforce health, spanning both sides of the public-private interface.





MANO HASHMI & BARRY LAMBERT, CO-FOUNDERS

STAGE

Commercial. Registered 2014. NHS investment and private equity funding received. Active NHS trust partnerships established, including Birmingham Women & Children's Hospital. Aria AI wellbeing platform live with NHS workforce and private sector clients.

IMPACT

Direct NHS investment received and active NHS trust partnerships in place, reflecting clinical confidence in the platform's approach to health navigation and workforce wellbeing.

Founder-led by practising NHS consultants at Queen Elizabeth Hospital Birmingham and Birmingham Children's Hospital, with clinical standards set by doctors rather than commercial operators.

Aria, Medstars' AI-driven CBT-based wellbeing platform, is live with NHS workforce clients.

"Medstars was built on a simple conviction: that access to the right clinical expertise, at the right time, changes outcomes - that principle now runs through everything we do, from specialist navigation to AI-powered workforce wellbeing."

MANO HASHMI, CO-FOUNDER, MEDSTARS

B13.ai

Birmingham-based software consultancy: AI-enhanced delivery for regulated industries, particularly health tech

THE CHALLENGE

Software development is risky and expensive - particularly in regulated industries like health tech where compliance, precision and efficiency are non-negotiable. Most enterprise-grade tools and providers price out the SMEs and innovators who most need rapid, compliant delivery. Health tech innovators specifically need development partners fluent in both AI capability and regulatory compliance - a combination poorly served by mainstream consultancies.

THE INNOVATION

Founded in 2010 by Tom Haworth, B13.ai (originally B13 Technology Limited) is a strategic software partner combining a Birmingham consultancy and management team with a wholly-owned development centre in Ho Chi Minh City, Vietnam. The business has built a track record of 120+ delivered software projects through a proprietary framework - including Venture Mapping™ and Cadence™ - designed to make compliant software delivery predictable on time and budget. AI-enhanced workflows accelerate delivery for SMEs in regulated sectors, particularly health technology.

WHY IT MATTERS

Health technology innovation in the UK is bottlenecked at the software-build stage as much as at the science. A consultancy that combines AI-enhanced productivity with health-tech compliance expertise reduces a structural barrier between innovator concept and deployable product - with measurable patient-outcome impact already demonstrated through the aortic stenosis platform.

WEST MIDLANDS CONTRIBUTION

B13 has operated from Birmingham since 2010, listed in the WMHTIA Business Directory and recognised in 2026 with the Greater Birmingham Chamber of Commerce Pioneer Award. The company has engaged with Medilink Midlands on practical AI guidance for UK manufacturers - extending its applied AI work into adjacent regulated sectors and strengthening its position within the regional life-sciences and advanced-manufacturing network.

CURRENT FOCUS

Expanding health-tech project work; deepening client base across SMEs in regulated industries; continuing to develop AI-enhanced delivery methodology for compliance-heavy software builds.

B13.ai

BIRMINGHAM · EST. 2010

STAGE

Commercial. Founded 2010 by Tom Haworth (originally as B13 Technology Limited); rebranded B13.ai. 120+ software projects delivered. Greater Birmingham Chamber of Commerce 2026 Pioneer Award winner.

IMPACT

Greater Birmingham Chamber of Commerce 2026 Pioneer Award - for democratising access to compliant software development for SMEs.

120+ software projects delivered to startups, scale-ups and SMEs since 2010, across regulated industries.

Remote patient monitoring platform for aortic stenosis - credited with saving four lives through early clinician intervention.

"Your business runs on workarounds. It doesn't have to."

TOM HAWORTH, FOUNDER, B13.AI

Health Innovation In Action

The 19 companies on the following pages have been supported by the WMHTIA. They are presented in order of commercial maturity - from businesses already in market and scaling internationally, through to earlier-stage ventures developing platform technologies for the next wave of deployment.

Six in ten of the enterprises given intensive support were less than four years old when they joined the programme, and 73% of the intensive cohort is based in the West Midlands. Alongside the partner network described on page 3, four services developed during the programme recur throughout the profiles that follow.

Reg-Navigator

Regulatory strategy, early

Developed with Element to give early-stage companies a clear view of their UK, EU and US regulatory pathways before they spend on consultants - a self-assessment, a discovery meeting and a report setting out framing options and their cost, timeline and evidence implications. 46 companies applied for 30 places; 44 were supported across four cohorts. Black Space Technology's profile shows the output in practice.

HealthTech AI Hub

From idea to working prototype

Led by the University of Birmingham with the Pioneer Data Hub's 20 years of acute-care data for 1.2 million patients, the Hub gave 74 innovators one-to-one AI consultancy, a strategic roadmap, regulatory sessions with a notified body, investor pitching to Mercia, Future Planet Capital and Plug and Play, and two four-day hackathons with 80 students from four universities that produced seven market-ready prototypes. Supported innovators went on to secure over £2m in funding.

Primary Care Accelerator

Innovation inside general practice

A joint venture between Our Health Partnership, one of the UK's largest GP groups, and venture-led innovation team Harbr. General practice delivers around 90% of NHS patient contacts yet has lacked dedicated innovation support; the PCA embeds selected companies inside practices, uses OHP as testbed and early customer, and has been cited as good practice in public procurement of innovation.

Venture Readiness Canvas

Measuring what actually changes

Developed by the Manufacturing Technology Centre and the University of Birmingham as an end-to-end tool that assesses each company against 14 commercialisation capabilities on a nine-point scale, selects the right partner intervention and tracks progress - a more nuanced measure than technology-readiness levels alone. Piloted with 26 companies in year 3 and now being adapted for the West Midlands Local Innovation Partnerships Fund.

Source: WMHTIA Pathfinder Report - Year 3 Extension (April 2025 - March 2026), University of Birmingham, September 2026.

Enable Design (Trixi Seating System)

Modular wheelchair seating for children with cerebral palsy

THE CHALLENGE

Cerebral palsy is the most common physical disability of childhood, affecting one in 400 UK children. Children at risk of postural complications need seating fast, but bespoke systems take months - against an 18-week wheelchair service Referral to Treatment target. NHS Integrated Care Boards spent approximately £529m on wheelchair services in 2024–25, much of it absorbed by frequent replacement as children grow.

THE INNOVATION

Trixi is an off-the-shelf modular seating system. Its patented split-seat base, pelvic cradle, configurable back support and adjustable cushion accommodate complex pelvic, hip and trunk postures using one product family. The design grows with the user and is re-upholstered for re-issue, reducing procurement cost and waste. The off-the-shelf approach removes bespoke manufacturing as the bottleneck - a Trixi seat ships within ten working days.

WHY IT MATTERS

Trixi addresses three converging pressures: clinical need for earlier postural intervention, service need to meet wheelchair RTT targets, and a system need to reduce avoidable lifecycle cost in specialist equipment. By replacing bespoke pathways with a configurable platform, it makes the economics of timely intervention work for the NHS while improving comfort, mobility and independence for children.

WEST MIDLANDS CONTRIBUTION

Enable Design was a WMHTIA grant recipient, with funds applied to regulatory approvals and safety testing, the steps that moved Trixi from development to market readiness. Warwick Manufacturing Group provides ongoing materials development for product refinement. WMHTIA acted as the integrating layer between regulatory, technical and commercial workstreams, accelerating market progression by an estimated eight to twelve months.

CURRENT FOCUS

Manufacturing facility live in Oldbury. Trixi launched internationally in 2024, with confirmed stock orders and distributor partnerships across seven European countries. Scaling production, expanding distribution, refining product based on user and clinical feedback.



STAGE

Commercial. Manufacturing in Oldbury; international distribution across seven European countries.

IMPACT

Reduces specialist seating waiting times from up to four months to as little as ten working days.

Re-issuable design lowers NHS lifecycle cost; supports earlier postural intervention.

Manufacturing reshored to the West Midlands, creating local jobs in advanced engineering.

"The support from the WMHTIA has been vital in accelerating Trixi from concept to market. With production now established in Oldbury, we're creating local jobs, strengthening UK manufacturing, and delivering seating systems that improve lives across the NHS and beyond."

ANIL PATEL, FOUNDER, ENABLE DESIGN

Birmingham Biotech

Birmingham-headquartered biotech with NoriZite® Nasal Spray and international operations

THE CHALLENGE

Respiratory infections continue to drive significant healthcare burden globally. Most over-the-counter nasal sprays are short-acting and provide symptomatic relief without offering protective barrier function. There is a clinical and consumer gap for products that combine ease of use with sustained protective coverage of the nasal mucosa.

THE INNOVATION

NoriZite® Nasal Spray is built on a dual-polymer matrix using plant-based polysaccharides. On contact with the nasal mucosa, the formulation forms an elastic fluid-gel layer that provides up to six hours of protective coverage - significantly longer than conventional sprays. The product has been developed in close collaboration with the University of Birmingham's Healthcare Technologies Institute.

WHY IT MATTERS

Sustained-action nasal protection has both consumer-health and pre-clinical-prophylaxis applications. By extending dwell time on the nasal mucosa, NoriZite® offers a meaningfully different product profile in a global category dominated by short-acting alternatives.

WEST MIDLANDS CONTRIBUTION

Birmingham Biotech has been built in close collaboration with the University of Birmingham's Healthcare Technologies Institute. The company is the seventh Birmingham-born member of the Unit 9 incubator at Birmingham Research Park, joining in 2024. The regional ecosystem provides the company with academic, infrastructure, and translational research support as it scales internationally.

CURRENT FOCUS

Continued international commercial expansion; deepening the product pipeline alongside the Healthcare Technologies Institute; building on the Unit 9 incubator base.



BIRMINGHAM BIOTECH

MICHAEL HSU, CEO

STAGE

Commercial. Lead product NoriZite® Nasal Spray in market; international distribution in place.

IMPACT

NoriZite® uses a dual-polymer matrix forming a protective elastic fluid-gel layer over nasal mucosa lasting up to six hours.

International commercial footprint: Asia, Latin America, Africa, UK.

Seventh Birmingham-born company to join the Unit 9 incubator at Birmingham Research Park (joined 2024).

iCount

Sterile, AI-enabled solution preventing retained surgical swabs

THE CHALLENGE

Swabs are among the most commonly retained items in the 106 retained foreign-object Never Events reported in the past year, the NHS's second most frequent Never Event category. Current practice relies on manual counting before and after surgery - a method prone to human error in high-pressure environments where errors are most consequential. Retained swabs lead to reoperation, infection, and in some cases death, with significant litigation, regulatory and reputational cost.

THE INNOVATION

iCount securely holds multiple surgical swabs as a physical checklist, providing visual and tactile confirmation of how many are in use. Pre-packed for sterility, it integrates directly into sterile theatre workflows, replacing manual count or visual-only checks. An optional AI-powered software layer enables verification and integration with smart theatre environments and electronic health records, supporting future digital operating room deployment.

WHY IT MATTERS

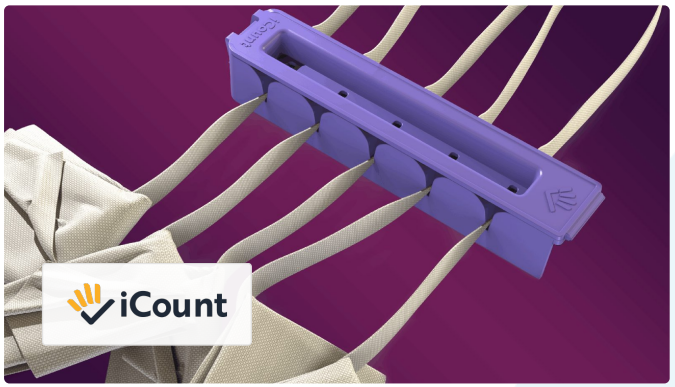
iCount targets a preventable category of patient harm with a simple, low-cost, universally deployable solution. It reduces clinical and litigation risk in one of the highest-stakes hospital environments, improves theatre team efficiency without disrupting workflow, and positions a UK product for NHS adoption with a digital integration pathway aligned to smart-theatre roadmaps.

WEST MIDLANDS CONTRIBUTION

WMHTIA support has covered the regulatory journey, manufacturing scale-up, and the business case for commercialisation. Shoosmiths and Forresters delivered intellectual property protection across nine international markets and supported the international manufacturing/distributor agreement. Medilink Midlands, Acuwomen and Health Innovation West Midlands facilitated NHS adoption stakeholder connections; Technology Supply Chain provided bid writing, marketing and finance introductions.

CURRENT FOCUS

Supporting NHS evaluation and wider deployment; scaling manufacturing through the international distribution agreement; continuing to validate the AI verification layer for digital theatre integration.



STAGE

Early NHS deployment. In use and under evaluation at Shrewsbury and Telford Hospitals NHS Trust; distribution partner Unisurge in place; international manufacturing/distribution agreement signed; IP filed in nine markets.

IMPACT

Targets the NHS's second most frequent Never Event category: 106 retained foreign objects post-procedure were reported in the past year, swabs among the most commonly retained items. £12.5m was paid by NHS Resolution 2015–2020 in claimant costs and damages linked to manual-counting Never Events. Simple physical design fits universal surgical workflows; optional AI software integrates with smart theatres and EHRs.

Endorsed by the Royal College of Obstetricians and Gynaecologists and the Royal College of Surgeons; independent health-economic analysis shows at least a 3:1 return.

"The support from the WMHTIA has been instrumental in transforming iCount to a market-ready innovation. The accelerator helped us navigate the final crucial stages - user testing, IP consolidation, regulatory support, and networking with key stakeholders for NHS adoption."

ADITI DESAI, CO-FOUNDER, ICOUNT

LaennecAI

AI-as-a-medical-device digital stethoscope turning a smartphone into a clinical-grade monitor

THE CHALLENGE

Chronic respiratory and cardiac conditions - asthma, COPD, heart failure - place sustained pressure on patients, clinicians and health systems. Care is often episodic, with long gaps between reviews and late detection of deterioration. Direct CVD and respiratory disease costs to the NHS total £12.3 billion per year. Most existing remote-monitoring solutions are hardware-heavy, costly, or designed for clinicians - limiting their suitability for patient-led monitoring.

THE INNOVATION

Wednesbury-based LaennecAI is developing an AI-as-a-Medical-Device digital stethoscope that turns a standard smartphone into a clinical-grade monitoring tool for home and community use. A smartphone-compatible adapter captures body sounds; AI models identify and interpret abnormal respiratory and cardiac signals; outputs are delivered through a mobile application supporting patient self-management and structured remote triage. As a software-first platform, it avoids the cost and scalability limitations of hardware-led devices.

WHY IT MATTERS

LaennecAI closes the gap between symptom onset and clinical intervention in chronic respiratory and cardiac care. For patients, reassurance and structured self-management. For clinicians, objective data to support remote triage. For the NHS, a shift from reactive to proactive care that reduces avoidable admissions and supports scalable remote monitoring without increasing workforce demand.

WEST MIDLANDS CONTRIBUTION

Birmingham City University led core AI development and early technical validation, including clinically labelled audio datasets, model training, and access to Life Sciences facilities for early feasibility testing. BCU also supported a regulated DevSecOps pipeline. Element Materials Technology (RegNavigator) shaped the regulatory strategy; WMG supported sustainability and ESG positioning. Through WMHTIA, LaennecAI launched the Zorgm patient-facing pilot and entered the Google for AI programme.

CURRENT FOCUS

Launching the digital stethoscope and AI health-coach products for chronic respiratory and cardiac patients, building on the June 2026 launch of Zorgm Pro, the clinician-facing answer engine grounded in NICE and NHS content. Progressing toward broader deployment.



LaennecAI

DR ARATHY VARGHESE, CTO

STAGE

Commercial launch underway. Zorgm Pro, the clinician-facing answer engine, launched in June 2026 on the App Store and Google Play; the digital stethoscope is in development with a public waitlist open.

IMPACT

Public pilot of the patient-facing answer engine handled over 26,000 health questions from 10,000+ users across 103 countries within 75 days of launch.

Approximately £650,000 raised in equity and grant funding to date; selected for the Google for AI programme with around $350,000 in AI credits.

Software-first design avoids the cost and scalability ceiling of hardware-led monitoring devices, enabling deployment across primary, community and home-based care.

"The WMHTIA has helped us move faster and with greater confidence. It connected us to the right expertise at the right time, strengthened our technical and regulatory thinking, and opened doors to partnerships and funding that have materially accelerated our journey."

ARATHY VARGHESE, CO-FOUNDER & CTO, LAENNECAI

Black Space Technology

Combat and emergency telemedicine: a NATO-compliant mobile electronic patient record platform advancing through medical-device regulation

THE CHALLENGE

Casualty care in emergency and battlefield settings depends on capturing and sharing reliable patient information at the point of injury - often with no fixed infrastructure, limited connectivity and non-specialist first responders. Hospital-grade electronic patient record systems are not built for these environments, and information captured in the field is frequently lost or re-entered before a patient reaches definitive care.

THE INNOVATION

Black Space Technology's Rapid-EPR is a NATO-compliant mobile electronic patient record platform for emergency and battlefield response. It combines a lightweight, ruggedised electronic record with wireless vital-sign monitoring, integrated telemedicine video and AI/ML algorithms designed to detect early signs of casualty deterioration, in configurations for non-medically trained first responders, combat medics and prolonged field-care medical teams.

WHY IT MATTERS

Distributed and austere care settings need digital infrastructure that meets the same regulatory and security bar as hospital systems. Black Space's products carry full medical accreditation - ISO 9001, ISO 13485, IASME IoT Gold, NHS Data Security and Protection Toolkit, Cyber Essentials Plus and GDPR compliance - positioning the platform for defence, emergency-service and civilian pre-hospital use.

WEST MIDLANDS CONTRIBUTION

Black Space Technology is Birmingham-headquartered and took part in WMHTIA's Reg-Navigator programme. Following an initial assessment and discovery call confirming the product's intended purpose, the company received a structured regulatory report setting out classification options (Class 1, 2A and 2B) and their implications for self-certification, notified-body assessment, cost and time to market; recommended quality and risk management systems; and the clinical evidence and documentation required for submission. Rather than prescribing a fixed strategy, it presented options and implications, enabling informed decisions and better engagement with regulatory consultants.

CURRENT FOCUS

Progressing medical-device regulatory classification and submission for Rapid-EPR; advancing defence and emergency-service deployment; maintaining the regulatory and security accreditations required for sensitive clinical environments.



STAGE

Pre-commercial. Rapid-EPR platform developed and accredited; medical-device regulatory classification pathway in progress, supported through WMHTIA's Reg-Navigator programme.

IMPACT

Founding team's prior track record: built and deployed the largest NHS Ambulance electronic patient record rollout to date - 1,000 ambulances handling over 30,000 cases per week - and a mobile telehealth solution used by 15 NHS Trusts for over 10,000 patients at home.

Comprehensive accreditation across Black Space's products: ISO 9001, ISO 13485, IASME IoT Gold, NHS DSPT, Cyber Essentials Plus and GDPR.

Regulatory clarity on device classification, systems and evidence requirements, shortening the path to market for a regulated telemedicine platform.

Championsys (AI Diagnostics)

Smartphone-compatible AI-powered eye disease screening, detecting up to 39 conditions

THE CHALLENGE

Every six minutes someone in the UK is told they are going blind. More than two million people already live with sight loss; that figure is projected to almost double by 2050. Worldwide, more than one billion people have vision impairment, with underserved communities disproportionately affected by financial cost or limited access to specialist eyecare. Traditional screening relies on expensive fixed equipment, trained specialists and dedicated clinical environments.

THE INNOVATION

AI Diagnostics, powered by parent company Championsys, has developed a smartphone-compatible screening device combined with AI software that identifies up to 39 distinct eye conditions. The device attaches to a smartphone, captures fundus images and OCT data, and processes them through algorithms trained to detect conditions including diabetic retinopathy. Portability plus automated analysis enables screening in environments traditional ophthalmology infrastructure cannot reach.

WHY IT MATTERS

Championsys reframes screening from a specialist-led clinical activity into a scalable population health tool. Earlier detection prevents avoidable vision loss; reduced reliance on specialist equipment improves access for underserved communities; and the smartphone form factor opens primary care, community and population health screening pathways while reducing secondary-care pressure.

WEST MIDLANDS CONTRIBUTION

Birmingham City University's computer science department led AI software development. WMG oversaw product development of the smartphone-attachable device. UHB ophthalmology provided clinical input. Bruntwood SciTech supported market positioning; Technology Supply Chain provided bid writing; Medilink Midlands brokered ecosystem connections; Forresters delivered IP protection. Championsys was a WMHTIA grant recipient and relocated from Argentina to the West Midlands as a base for UK and international expansion.

CURRENT FOCUS

Continued product development and validation; refining AI capability and usability; preparing for UK and international market entry in 2026–27, with ongoing collaboration with regional academic and manufacturing partners.



STAGE

Pre-commercial. Coventry-based; advancing toward UK and international market entry within two years.

IMPACT

AI softwaretrained to identify up to 39 distinct eye conditions including diabetic retinopathy, expanding screening access beyond specialist clinical environments.

Smartphone-compatible attachment enables screening in primary care, community settings and outreach population health programmes.

Early treatment can prevent severe vision loss in 90% of people with diabetic retinopathy - a condition that costs the NHS an estimated £70m per year.

"The support from WMHTIA was a turning point: it helped us turn an ambitious idea into a viable product, ready to deliver real-world impact. It brought us closer to launch and connected us with the right partners to scale our vision."

ALEJANDRO GARRO, DIRECTOR OF AI DIAGNOSTICS, CHAMPIONSYS

Impli

Real-time hormone monitoring biosensor for IVF with a platform roadmap into chronic disease

THE CHALLENGE

IVF treatment requires frequent monitoring of hormone levels - LH, progesterone and oestradiol - to time interventions correctly. The standard pathway involves repeated blood draws across each cycle, which is time-consuming for patients, costly for clinics, and limits the granularity of data available to inform treatment decisions. Beyond IVF, the same constraint affects monitoring across many endocrine and chronic conditions.

THE INNOVATION

Impli has developed a biosensing platform combining electronics with minimally invasive biosensors. BEAM (Bio-Endocrine Analysis Monitor), a microneedle biosensor patch worn on the upper arm, continuously measures hormones in interstitial fluid and transmits the readings to a smartphone, providing real-time hormone data without the need for blood draws. The first indication is IVF hormone monitoring, with the longer-term roadmap targeting fully implantable, long-duration monitoring and applications in cardiovascular disease, oncology and brain health using the same underlying platform.

WHY IT MATTERS

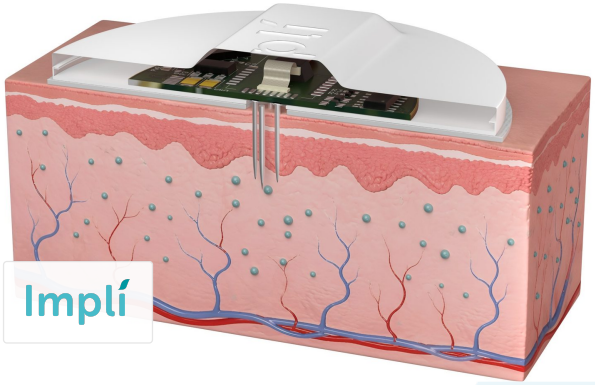
Real-time, continuous monitoring transforms a clinical pathway that currently relies on episodic snapshots. For IVF specifically, more granular data has the potential to improve cycle outcomes; across other indications, the same architecture opens chronic-disease management to a level of patient-led monitoring that current invasive sampling cannot support.

WEST MIDLANDS CONTRIBUTION

Impli is the first commercial lab resident at PHTA in Birmingham, a regional flagship for translational health technology innovation. The PHTA environment provides Impli with co-located clinical, engineering and commercial expertise as it progresses toward human trials and regulatory readiness.

CURRENT FOCUS

Delivering the NIHR-funded programme with Imperial College Healthcare NHS Trust, King's College London, Fertility Europe and manufacturer TTP: final device design and ISO 13485 manufacturing, a 25-participant pilot study, and regulatory and health-economic groundwork for NHS adoption. Extending the platform into polycystic ovary syndrome under the SPRIND Challenge, with cardiovascular, oncology and brain health applications on the longer-term roadmap.



STAGE

Pre-commercial. First commercial lab resident at the Precision Health Technologies Accelerator (PHTA) in Birmingham; £1.4m NIHR Invention for Innovation award (June 2026) funding a 30-month programme to take BEAM from prototype to first-in-human clinical validation in IVF.

IMPACT

Continuous measurement of oestradiol, LH and progesterone in interstitial fluid, streamed to a smartphone - replacing up to ten clinic visits for blood draws per IVF cycle with as few as two.

Selected as a Venture Leader (Swiss Venturelab) and PHTA's first commercial lab resident.

Selected in September 2026 for Stage 1 of SPRIND's Continuous Hormone Monitoring Challenge (Germany's federal agency for breakthrough innovation), worth up to €6m over three years to extend BEAM into polycystic ovary syndrome.

Platform technology with extension paths into cardiovascular disease, cancer and brain health monitoring.

CRISM Therapeutics

University of Birmingham spin-out: implantable polymer chemotherapy for solid tumours

THE CHALLENGE

Surgeons frequently cannot remove an entire solid tumour without compromising surrounding healthy tissue. The cells left behind are responsible for recurrence and the high mortality associated with cancers including high-grade glioma. Systemic chemotherapy struggles to reach these residual cells at therapeutic doses without significant toxicity, leaving a clear unmet clinical need for site-specific delivery.

THE INNOVATION

ChemoSeed® is a biodegradable polymer the size of a grain of rice, implanted at the tumour site by the surgeon at the point of resection. The seed delivers chemotherapy precisely where residual cancer cells remain, at doses that would be impossible systemically. Demonstrated pre-clinically in high-grade glioma; designed as a platform applicable to other solid tumours.

WHY IT MATTERS

ChemoSeed addresses a category of cancer mortality driven not by failed diagnosis but by the limits of surgery and systemic therapy. By delivering precise dosing at the point of greatest clinical risk, it has the potential to materially shift recurrence rates and survival in indications where outcomes have remained stubbornly poor.

WEST MIDLANDS CONTRIBUTION

CRISM has commenced its clinical development programme at the University Hospitals Birmingham NHS Foundation Trust following its London Stock Exchange listing. The University of Birmingham is the source of the underlying science (founder Christopher McConville, Associate Professor in Pharmaceutics and Drug Delivery), and the regional ecosystem provided the route from translational research to public-market listing.

CURRENT FOCUS

Recruiting to the Phase II registration-grade trial in glioblastoma; advancing the prostate cancer programme following positive pre-clinical data; preparing the platform for additional solid-tumour applications.



CRISM Therapeutics

PROF CHRIS MCCONVILLE, CSO

STAGE

Clinical-stage. AIM-listed on the London Stock Exchange (CRTX); Phase II registration-grade trial of irinotecan-ChemoSeed® in glioblastoma open and recruiting, with the first clinical site, the Queen Elizabeth Hospital Birmingham, activated in August 2026.

IMPACT

Targets high-grade gliomas - a brain cancer with no satisfactory current treatment and a five-year survival of under 10%.

AIM listing raised £2.0m in primary capital, followed by approximately £4.7m in oversubscribed equity offerings during 2025 and non-dilutive grants from Innovate UK and Invest Northern Ireland.

MHRA clearance for the Phase II trial, FDA Orphan Drug Designation and a UK Innovation Passport secured for the ChemoSeed® programme.

Implantable platform applicable to multiple solid-tumour indications where surgical resection is incomplete.

Medherant

University of Warwick spin-out: next-generation transdermal drug-delivery patches

THE CHALLENGE

Many drugs are limited in their effectiveness or convenience because oral delivery is poorly tolerated, requires high doses, or causes side effects when first-pass metabolised through the liver. Transdermal patches offer a solution, but existing drug-in-adhesive patch technologies are limited in the range of drugs they can carry and the doses they can deliver - a gap between drugs that could benefit and patches that can practically carry them.

THE INNOVATION

Founded in 2014 by Professor David Haddleton (Polymer Chemistry, Warwick), Medherant has developed an adhesive patch platform built on bioadhesive and polymer chemistry. The technology has greater drug-loading capacity and broader compatibility than competing drug-in-adhesive patches, expanding the library of medicines that can be delivered transdermally at therapeutically relevant doses.

WHY IT MATTERS

A platform that materially expands which drugs can be delivered via patch opens commercial opportunities across multiple indications - from women's health (the lead programme) to chronic conditions where adherence to oral regimens is a known clinical problem. The Bayer collaboration validates the platform externally.

WEST MIDLANDS CONTRIBUTION

Medherant is a University of Warwick spin-out, with the underlying technology developed within Warwick's Polymer Chemistry group. Manufacturing scale-up has been supported through the regional industrial base, including Warwick Manufacturing Group's broader involvement in advanced manufacturing translation.

CURRENT FOCUS

Advancing the testosterone TEPI Patch® for post-menopausal women through subsequent clinical phases; progressing the Bayer co-development programme; expanding application of the platform across additional drug candidates.



STAGE

Clinical. Phase 1 trial of testosterone TEPI Patch® for post-menopausal women returned positive results in October 2025.

IMPACT

Phase 1 demonstrated improved testosterone delivery returning blood levels to the normal pre-menopausal range.

£3.8m latest funding round (led by Mercia Technologies PLC at £2.5m); previous round raised £1.5m.

Bayer development collaboration agreement (March 2024); manufacturing partnership with Laboratoires Plasto Santé.

EarSwitch

EarMetrics in-ear sensor platform for racially inclusive vital-sign monitoring

THE CHALLENGE

Pulse oximetry underpins clinical observation, routine monitoring, disease management and remote care. Post-pandemic evidence revealed many fingertip oximeters vary in accuracy with skin colour - a bias that may have contributed to higher mortality among certain racial groups during COVID-19. The bias creates inequity in care and undermines confidence in monitoring data, particularly in remote and community settings where digital health is increasingly relied upon.

THE INNOVATION

EarSwitch has developed EarMetrics, a non-contact in-ear sensor platform targeting the ear canal - a central anatomical site where skin colour is consistent across all individuals. The sensor will integrate with everyday wearables (earbuds, hearing aids) as well as dedicated medical devices, capturing detailed and rapidly changing physiological signals simultaneously. Beyond inclusive oximetry, it will monitor pulse transit time and pulse wave patterns, opening a digital alternative to cuff-based blood pressure measurement.

WHY IT MATTERS

EarMetrics addresses dual demand for racially inclusive medical monitoring and scalable continuous home-based observation. By embedding clinical-grade sensing into everyday wearables, it aims to enable population-scale data collection across diverse cohorts, supporting individual disease management and the development of inclusive digital health tools.

WEST MIDLANDS CONTRIBUTION

MTC delivered technical assessment and product development for advancing sensor accuracy. UHB and the Medical Devices Testing and Evaluation Centre secured funding for the first-in-human clinical investigation, supported MHRA documentation, and conducted preliminary feasibility assessments with University Hospitals Birmingham. WMHTIA also funded a US visit to Silicon Valley for international investor exposure, and facilitated EarMetrics' selection as one of eight devices in the MHRA's inaugural IDAP.

CURRENT FOCUS

Clinical validation of EarMetrics oximetry in high-risk intensive care patients, supported by Asthma and Lung UK Charity funding alongside WMHTIA. EarMetrics BP (digital blood pressure monitoring) progressing with funding from Innovate UK, and with the University of Leeds and Leeds Teaching Hospital NHS Trust.



STAGE

Clinical validation. Selected for MHRA's first IDAP cohort (2024). Funding secured for first-in-human investigation; seed round closed in May 2026, led by PXN Ventures, to fund product development, clinical validation and commercial readiness.

IMPACT

Targets a documented bias in fingertip oximetry that contributed to higher mortality among certain racial groups during the COVID-19 pandemic.

Recognised as Life Sciences Innovator of the Year at the November 2025 Innovation Awards.

Sensor architecture is designed to support continuous, non-invasive monitoring across acute, community and home settings, and to offer a digital alternative to cuff-based blood pressure measurement.

"The WMHTIA has provided funding, support, guidance and networking - globally and nationally; with this, EarMetrics is much closer to becoming the new standard for safety-critical healthcare all over the world."

NICK GOMPERTZ, FOUNDER, EARSWITCH

NEWAVX

First-in-class mechanical stimulus platform delivering exercise-relevant biology without voluntary movement

THE CHALLENGE

Musculoskeletal decline is a leading driver of chronic pain, loss of independence and reduced quality of life. Exercise remains the most effective intervention, but a growing share of the population cannot engage safely or consistently - older adults, people with chronic disease, and patients recovering from illness, injury or medical intervention. The widespread adoption of GLP-1 receptor agonists has amplified the gap, with emerging evidence of muscle mass loss in less physically active populations.

THE INNOVATION

NEWAVX has developed a proprietary, first-in-class mechanical stimulus designed to deliver key biological effects typically associated with exercise, without requiring physical exertion. The technology bridges exercise and medicine: not replacing movement, but supporting individuals who cannot tolerate conventional rehabilitation. The non-drug approach is adaptable across environments, designed with future clinical, regulatory and scalability requirements in mind. Extensive real-world use demonstrates strong acceptance and repeat engagement, with more than 60,000 sessions delivered to date.

WHY IT MATTERS

NEWAVX targets a population that current healthcare pathways underserve: people who need the biological benefits of exercise but cannot achieve them through movement. The platform sits between two well-funded care models - physical rehabilitation and pharmacology - with the potential to complement both. Its relevance is amplified by GLP-1 therapy scale-up, where preserving muscle mass is becoming a recognised secondary clinical goal.

WEST MIDLANDS CONTRIBUTION

Supported by a £150,000 WMHTIA grant awarded in 2024, NEWAVX undertook a multidisciplinary development programme led by the University of Birmingham, integrating applied mathematics, modelling, human physiology, computer science and additive manufacturing. PHTA provided clinical guidance and infrastructure. MTC delivered early engineering development and a working proof-of-principle rig. Birmingham City University built the first AI prototype. Element Materials Technology shaped early regulatory pathway guidance. Forresters and Shoosmiths supported legal, IP and commercial strategy. WMHTIA support marked the company's transition to a scalable biotech and deep-tech platform.

CURRENT FOCUS

Progressing further scientific and clinical validation; advancing regulatory development; expanding collaborations with healthcare, industry and research partners; and establishing scalable manufacturing and deployment.



STAGE

Clinical-stage development. Human proof-of-mechanism established through independent university-led research (University of Birmingham), with further clinical validation and regulatory development underway.

IMPACT

Bridges a gap between exercise and pharmacology: addresses musculoskeletal decline in patients who cannot tolerate conventional movement-based rehabilitation.

Increasingly relevant in the context of widespread GLP-1 receptor agonist use, where reductions in muscle mass and strength are an emerging concern in older or less physically active populations.

Targets a global musculoskeletal disease burden estimated to exceed $2 trillion annually in healthcare costs and lost productivity.

"Innovation rarely moves in straight lines. The WMHTIA forced us back to first principles and challenged a technology that was new, unfamiliar, and often misunderstood. We entered as a veterinary wellness product and emerged as NEWAVX - a company built for human impact."

FRANCESCA FOX, CO-FOUNDER, NEWAVX

Healome Therapeutics

University of Birmingham clinical-stage spin-out: eye drop matrix platform

THE CHALLENGE

Conventional eye drops are cleared from the ocular surface in minutes, reducing drug effectiveness and requiring frequent dosing. Inconvenience and side-effects can drive treatment adherence rates as low as 20%. Poor patient adherence and perceived benefit further reduces treatment effectiveness. There is a clear need for therapies that remain on the eye for longer and better support healing.

THE INNOVATION

Healome's eye-drop matrix behaves like a liquid when applied to the eye, and then restructures on the eye to form a clear, lubricating, protective "matrix". The matrix can also deliver a broad range of drugs, from small molecules to complex biologics. The technology uses established pharmaceutical- and food-grade polymers without complex chemical modification to maximise safety and simplify manufacturing.

WHY IT MATTERS

A platform that improves both standalone treatment and combination drug delivery could transform the clinical effectiveness and economics of ocular surface care. Healome's technology has applications across dry eye, post-surgical recovery, chronic ocular conditions, and as a delivery vehicle for next-generation eye therapeutics.

WEST MIDLANDS CONTRIBUTION

Healome is a University of Birmingham spin-out (formed 2021), based at Birmingham Research Park. Founders span biomaterials, wound healing, formulation engineering and clinical translation: Prof Liam Grover (Healthcare Technologies Institute), Prof Anthony Metcalfe, Dr Richard Moakes, and Dr Richard Williams (CEO). The regional research, funding and innovation infrastructure has supported Healome from spin-out through to clinical-stage progression.

CURRENT FOCUS

Advancing clinical studies and expanding platform applications across additional ocular conditions.



HEALOME THERAPEUTICS

RICHARD WILLIAMS, CEO

STAGE

Pre-clinical. Technology has already been granted approval to enter early phase clinical studies

IMPACT

Eye drop matrix technology aiming to improve the safety, patient adherence, and clinical outcome of ocular drugs.

Lubricating, protective matrix extending drug retention time to make more effective use of each dose and support the ocular surface.

Closed £2m oversubscribed funding round with an international group of investors in 2026.

"The Healthcare Technologies Institute brought together the clinical challenge to be solved, the required scientific and engineering disciplines to solve them, and early consideration of regulation. This environment enabled the development and spin-out of the technology into Healome where it has since attracted industry veteran talent and high quality venture capital."

RICHARD WILLIAMS, CEO, HEALOME THERAPEUTICS

Cytecom

University of Warwick spin-out: rapid antimicrobial susceptibility diagnostic for bloodstream infections

THE CHALLENGE

Bloodstream infections and sepsis are responsible for 20% of global deaths, a number predicted to rise as antimicrobial resistance grows. Determining the most effective antibiotic currently takes days, as laboratory testing must establish susceptibility. During that delay, clinicians rely on broad-spectrum antibiotics that disrupt patient microbiomes and accelerate AMR. Resistance is now emerging against those broad-spectrum drugs themselves - meaning patients may receive ineffective treatment in the most critical window.

THE INNOVATION

Cytecom, a University of Warwick spin-out, is developing CyteCount: a diagnostic platform built on Optical Electrophysiology, a patented technique that measures changes in bacterial and fungal membrane potential in response to antibiotics. By combining fluorescent microscopy, electrical stimulation and AI, the system detects real-time physiological changes at the cellular level. Unlike conventional culture-based diagnostics, the method does not rely on bacterial growth, enabling readouts in as little as 45 seconds.

WHY IT MATTERS

CyteCount addresses sepsis mortality at the variable that matters most: time to targeted therapy. By compressing antibiotic susceptibility testing from days to hours, it could meaningfully reduce sepsis-related mortality, shorten hospital stays, free critical bed capacity, and reduce reliance on broad-spectrum prescribing - improving patient outcomes and supporting antimicrobial stewardship at system scale.

WEST MIDLANDS CONTRIBUTION

Cytecom received intensive cross-sector support, with seven WMHTIA partners advancing commercialisation. Bruntwood SciTech delivered the eight-week Triple Chasm business development programme. Forresters provided comprehensive IP protection. MTC created a design-for-manufacture process for the research laboratory variant. Medilink Midlands co-organised the Innovations Against AMR event. Plug and Play UK delivered investor introductions including the Silicon Valley Winter Summit. SPARK The Midlands supported regulatory training. Cytecom was also a WMHTIA grant recipient, working with Smallfry on user-led design.

CURRENT FOCUS

Completing NHS clinical data collection in Leicester, finalising design for regulatory readiness and scaling regional manufacturing.



STAGE

Pre-clinical. First research-use device commercialised; clinical data collection underway with NHS partners in Leicester.

IMPACT

CyteCount platform aims to shorten time to identify effective antibiotic therapy from days to hours, with cellular susceptibility readouts in as little as 45 seconds.

Targets sepsis mortality directly: every hour of delayed effective treatment increases mortality by 4–7%; sepsis patients can occupy hospital beds for up to 12 days awaiting effective treatment.

Supports antimicrobial stewardship by reducing reliance on broad-spectrum antibiotics, a major contributor to global antimicrobial resistance.

"The WMHTIA support has been instrumental in accelerating Cytecom's journey from innovation to commercialisation. It enabled us to enhance the reliability of our diagnostic technology, strengthen our regulatory position, and refine our product development strategy."

DR MAGDALENA KARLIKOWSKA, CEO, CYTECOM

Linear Diagnostics (trading as ExGen Dx)

University of Birmingham spin-out: five-minute point-of-care diagnostic for STIs

THE CHALLENGE

Sexually transmitted infections are a major public health concern: around 402,000 new diagnoses were made in England in 2025, from 2.4 million sexual health screens. Untreated infections cause significant long-term harm, and the services that detect them are under sustained financial pressure: English councils spent £586 million on sexual health services in 2024/25, down from £859 million in 2013/14 in real terms. Timely accurate detection guides appropriate treatment, reduces onward transmission, and limits the broad-spectrum prescribing the WHO identifies as a contributor to global antimicrobial resistance.

THE INNOVATION

Linear Diagnostics Limited (trading as ExGen Dx), a University of Birmingham spin-out, is developing a point-of-care diagnostic platform built on Exponential Amplification (EXPAR) technology - a fast molecular method that identifies bacterial STIs, UTIs and viral infections including COVID in as little as five minutes. The platform measures multiple targets simultaneously using a disposable cartridge run on a small, low-cost instrument, designed for use within sexual health clinics so patients can be diagnosed and start targeted treatment within a single visit.

WHY IT MATTERS

By collapsing the gap between testing and treatment to a single clinic visit, Linear Diagnostics addresses three issues simultaneously: the patient-experience problem driving missed follow-up, the public-health problem of onward transmission, and the antimicrobial stewardship problem of empirical broad-spectrum prescribing. The platform's applicability to UTIs and viral infections positions it as a multi-indication point-of-care platform.

WEST MIDLANDS CONTRIBUTION

University of Birmingham led iterative prototype development and material optimisation through advanced manufacturing facilities, alongside hosting Linear in the HealthTech AI Hub hackathon for AI-aided assay design. Bruntwood SciTech delivered an eight-week business development and commercialisation programme. Medilink Midlands provided expert IP, regulatory and clinical-trial-readiness advice and connected the team into the ARREST-AMR network. Linear Diagnostics was also a WMHTIA grant recipient.

CURRENT FOCUS

Delivering a three-year NIHR Invention for Innovation work package with NIHR HRC in Diagnostic and Technology Evaluation and the North East Innovation Lab at Newcastle Hospitals, culminating in first-in-clinical-sample testing.



STAGE

Pre-clinical. £1m grant awarded by NIHR's Invention for Innovation programme; finalising prototype for clinical trials.

IMPACT

Detects bacterial STIs, urinary tract infections and viral infections (including COVID) in as little as five minutes from a single sample.

Multi-target measurement on a low-cost disposable cartridge supports test-and-treat in a single clinic visit, reducing onward transmission and antimicrobial resistance pressure.

Part of the cohort that has helped WMHTIA-supported enterprises secure £10m in national grants from organisations including NIHR, Eureka and Innovate UK.

"Working with the WMHTIA has greatly accelerated the progress of this project, and the support has been invaluable in overcoming many of the varied and challenging obstacles in bringing our technology to market."

JEAN-LOUIS DUPREY, HEAD OF R&D, LINEAR DIAGNOSTICS

MICA Tx

Nanoparticle technology to control cell behaviour in vivo for tissue regeneration

THE CHALLENGE

Therapeutics are inherently unpredictable once introduced to the body, from off-target effects of pharmaceuticals (lack of location control) to long-term side-effects of cell therapies (lack of temporal control). The newest therapies hold promise but face a fundamental control problem: once cells or molecules are introduced into the body, directing them to the right tissue and the right differentiation pathway is difficult. Without control, therapies are unpredictable.

THE INNOVATION

MICA Tx uses nanoparticles to communicate with cells directly in vivo, enabling clinicians to remotely control cellular behaviour. By activating chosen receptors and ion channels, the platform allows controlled differentiation of stem cells to promote the creation of chosen tissues, activate T-cells to fight cancer in specific locations, or create new connections between neurons. The approach has been demonstrated pre-clinically and is now progressing into its world-first clinical trial in Birmingham.

WHY IT MATTERS

Remote control of cells at a cell-by-cell granularity is a step-change for medicine. If clinically validated, MICA opens a route to predictable, tissue-specific regeneration without surgery, with applications in spinal repair, orthopaedics, and beyond. The regenerative medicine market is large; the technical barrier has been control, which MICA directly addresses.

WEST MIDLANDS CONTRIBUTION

MICA Tx is now headquartered in Birmingham and is listed in the WMHTIA Business Directory. WMHTIA partner Plug and Play has provided investment-raising opportunities to support the company's progression to clinical trials, and in April 2025 MICA Tx was one of the WMHTIA-supported companies that showcased its technology to the Mayor of the West Midlands and the MP for Birmingham Edgbaston at the University of Birmingham. The Royal Orthopaedic Hospital in Birmingham has engaged with the company on a pioneering orthopaedic study exploring biomagnetic technology, providing clinical validation infrastructure within the regional ecosystem.

CURRENT FOCUS

Progressing the spinal repair programme toward clinical trials; building on successful pre-clinical mammalian studies; advancing the platform's broader regenerative medicine applications.

MICA TX

REGENERATIVE MEDICINE · BIRMINGHAM

STAGE

Pre-clinical, progressing toward clinical trials. Active programme in spinal repair following successful pre-clinical mammalian studies.

IMPACT

Founders Dr Mike Zurawski and Prof Alicia El Haj have together published over 500 articles on biotechnology and stem-cell control.

Magnetic stem-cell activation enables controlled differentiation in vivo, a non-invasive route to drive tissue regeneration.

Currently progressing toward clinical trials in spinal repair, building on successful pre-clinical animal studies on spinal fusion.

Fibraxis

Aston University spin-out: inhalable daily medication targeting structural lung damage in asthma

THE CHALLENGE

Asthma is one of the most common chronic respiratory conditions in the UK, affecting around 5.4 million people. Existing inhaled therapies manage symptoms - they do not address the structural lung damage (tissue fibrosis) that develops in severe and progressive disease and that drives long-term decline in lung function. Patients face a treatment gap between symptom control and disease modification.

THE INNOVATION

Fibraxis is developing an inhalable daily medication targeting tissue fibrosis in lung tissue - the scarring caused by underlying damage. The therapeutic approach aims not just to suppress symptoms but to halt and reverse the structural disease process itself, addressing a clinical category that current asthma medications do not reach.

WHY IT MATTERS

A disease-modifying inhaled therapy for asthma would be a step-change in respiratory care. For patients with severe or progressive disease, intervention at the level of structural damage has the potential to change the trajectory of the condition, not just its day-to-day management - with implications for hospital admission rates, long-term lung function preservation, and quality of life.

WEST MIDLANDS CONTRIBUTION

Fibraxis is an Aston University spin-out, with founder Dr Jill Johnson based in the School of Biosciences and led by CEO Rebecca Bignold. The company is in cohort 1 of SPARK The Midlands - the UK branch of Stanford University's global pre-clinical accelerator network, hosted at Aston. SPARK provides regulatory training, clinical trial planning support, and £25,000 in working capital to develop the proposition toward investability.

CURRENT FOCUS

Pre-clinical development through the SPARK programme; preparing for the next round of investment and clinical translation.

Fibraxis

ASTON UNIVERSITY SPIN-OUT

SPARK THE MIDLANDS

SPARK THE MIDLANDS COHORT

STAGE

Pre-clinical. SPARK The Midlands cohort 1.

IMPACT

Targets fibrosis - the structural lung damage that underpins severe and progressive asthma - rather than treating symptoms alone.

Shortlisted for the BioSeed One-to-Watch Award at the BioUK Awards 2026.

Founder's personal experience of asthma is the origin of the research programme.

EVolution Therapeutics (EVo)

Aston University spin-out developing local mRNA-LNP therapeutics to resolve inflammation and support tissue repair

THE CHALLENGE

Inflammation is essential to healing, but when it fails to resolve, it can contribute to ongoing tissue damage across a range of diseases. Chronic wounds are one example: more than 2 million people in the UK are affected each year, according to UK Research and Innovation. For patients, these wounds can mean persistent pain, repeated dressing changes, reduced mobility and months of uncertainty about whether they will heal. In severe cases, complications can lead to hospitalisation or amputation. There is a pressing need for therapies that address the underlying failure to resolve inflammation and help damaged tissue move towards repair.

THE INNOVATION

EVolution Therapeutics is developing a localised mRNA-lipid nanoparticle (mRNA-LNP) therapeutic platform inspired by research into extracellular vesicles, small particles released by cells that can influence inflammation and tissue repair. Its mRNA-LNPs deliver instructions for cells at the treatment site to produce proteins involved in the active resolution of inflammation. Incorporated into a hydrogel for local delivery, the lead therapy aims to shift the environment in chronic wounds from persistent inflammation towards healing, using the body's own repair processes.

WHY IT MATTERS

By encouraging cells at the treatment site to produce proteins that help resolve inflammation, the therapy aims to change the conditions that prevent damaged tissue from healing. In chronic wounds, this could help the wound progress towards closure, reducing the need for repeated treatment and the risk of serious complications. The same approach could offer a way to support tissue repair in other diseases where persistent inflammation disrupts healing.

WEST MIDLANDS CONTRIBUTION

EVolution Therapeutics is an Aston University spin-out founded by Professor Andrew Devitt, Dr Ivana Milic and CEO Dr James Gavin. The company's therapeutic platform builds on decades of extracellular vesicle research led by Professor Devitt at Aston University, revealing how these natural particles influence inflammation and tissue repair. As part of the first SPARK The Midlands cohort, EVo has gained expert mentorship and access to specialist networks to support its progress towards clinical development.

CURRENT FOCUS

EVolution Therapeutics is advancing pre-clinical development of its lead therapy for chronic wounds and building the evidence needed to progress towards IND-enabling studies and clinical testing. The company is currently seeking £1 million to fund its next stage of development.





DR JAMES GAVIN, CEO · DR IVANA MILIC, CSO · PROF ANDREW DEVITT, CTO

SPARK THE MIDLANDS COHORT

STAGE

Pre-clinical. SPARK The Midlands cohort 1; selected for the 2026 Accelerate@Babraham and Innovator's Club cohort. Seeking £1m for next development stage.

IMPACT

Currently targets a £5.6bn annual NHS cost burden from non-healing wounds.

Leverages extracellular vesicle science, a natural process involving small membrane-enclosed fragments released by dying cells to trigger natural tissue repair.

Beyond its initial wound care indication, the mRNA-LNP platform could be adapted for conditions affecting other organs, including inflammatory lung disease, fibrosis and neuroinflammatory disorders, where persistent inflammation contributes to tissue damage.

Solute Guard Therapeutics (SGTx)

University of Birmingham immunometabolism science: first-in-class antibodies for Sjögren's disease and autoimmune inflammation

THE CHALLENGE

Sjögren's disease is the second most common autoimmune rheumatic disease, and with rheumatoid arthritis and other chronic inflammatory conditions it drives significant patient morbidity and healthcare cost. Current treatments, including biologics, have transformed outcomes for many but leave a meaningful patient population whose disease is poorly controlled, who suffer treatment side effects, or whose response declines over time. A common feature of these diseases is the formation of ectopic lymphoid structures - aggregates of immune cells inside inflamed tissue that sustain the autoimmune response - and no current therapy targets the mechanism that organises them.

THE INNOVATION

Solute Guard Therapeutics (SGTx) is an early-stage monoclonal antibody company generating first-in-class therapeutics against a novel receptor target that plays a pivotal role in controlling ectopic lymphoid structure formation and inflammation. The science comes from the University of Birmingham's Institute of Inflammation and Ageing: research led by founder and Chief Scientific Officer Claudio Mauro, published in Nature Metabolism in August 2025, showed that the metabolite lactate is a master regulator of ectopic lymphoid structures in Sjögren's disease, and that blocking its transporter reduces inflammatory cytokines, releases T cells from inflamed sites and shrinks the structures themselves. The lead programme is a multi-dimensional antibody for Sjögren's disease, followed by lymphoid rheumatoid arthritis and other chronic inflammatory diseases.

WHY IT MATTERS

Disease-modifying treatments for autoimmune inflammatory conditions represent a major commercial and clinical opportunity, and a therapy that dismantles the immune hotspots driving disease - rather than suppressing inflammation broadly - would be a new class. Even incremental improvements in efficacy, tolerability or duration of response deliver substantial value across patient populations measured in the hundreds of thousands per indication.

WEST MIDLANDS CONTRIBUTION

Solute Guard Therapeutics is built on University of Birmingham science and is a participant in SPARK The Midlands - the UK branch of Stanford University's global pre-clinical accelerator network, hosted at Aston University and a WMHTIA partner. SPARK provides regulatory training, clinical trial planning support and development capital to progress propositions toward investability. The company's Swiss affiliate, Solute Guard Therapeutics AG, is resident at Switzerland Innovation Park Basel Area, connecting Birmingham-originated science to one of Europe's leading life-sciences clusters.

CURRENT FOCUS

Pre-clinical development of the lead antibody for Sjögren's disease through the SPARK programme; advancing toward clinical translation and investment readiness.

SGT Solute Guard Therapeutics

UNIVERSITY OF BIRMINGHAM SCIENCE

SPARK THE MIDLANDS COHORT

STAGE

Pre-clinical / early-stage. SPARK The Midlands cohort; founding science published in Nature Metabolism (August 2025); Swiss affiliate resident at Switzerland Innovation Park Basel Area.

IMPACT

Targets Sjögren's disease - the second most common autoimmune rheumatic disease - with lymphoid rheumatoid arthritis and other chronic inflammatory diseases to follow.

First-in-class approach: a novel receptor target that controls the formation of ectopic lymphoid structures, identified in peer-reviewed University of Birmingham research.

SPARK The Midlands cohort participant - the UK branch of Stanford University's global pre-clinical accelerator network.

LBN Innovations

Camera-assisted cervical screening device - the first material innovation in 150 years

THE CHALLENGE

NHS England's 2023-24 cervical screening report shows 5.12 million people aged 25 to 64 were invited for screening in England and 3.25 million were tested - 1.87 million did not take up a potentially life-saving offer. National coverage stood at 68.8%, well below the 80% target. In the West Midlands, nearly one in three eligible people decline the offer. Pain and embarrassment are the most common reasons cited - unsurprising, given that the conventional speculum has seen no material innovation in 150 years. Disparities in uptake are higher in ethnic minority communities.

THE INNOVATION

LBN Innovations has developed a camera-assisted screening device approximately the size of a tampon, with an ergonomic design intended to fully replace the traditional speculum. The camera assist enables clinicians to perform screening at the patient's side rather than "on them" - the patient observes the same screen, preserving modesty and reframing the procedure as something done with the patient rather than to them. The device addresses both the physical discomfort and the emotional barriers that drive disengagement.

WHY IT MATTERS

LBN Innovations is the first material innovation in cervical screening in over a century, targeting a public health metric the NHS has consistently underperformed against. By addressing the actual barriers to attendance - pain and embarrassment - it has the potential to narrow socioeconomic and ethnic disparities, increase national screening coverage, and reduce mortality from a cancer that is largely preventable when detected early.

WEST MIDLANDS CONTRIBUTION

WMHTIA support has driven the technology toward real-world deployment via prototype development, IP protection, refinement and early-stage validation. UHB conducted a Patient and Public Involvement focus group with clinical input. Technology Supply Chain expanded LBN's manufacturer network. MTC delivered technical assessment and bespoke design development with UK supply chain support. Azets, Acuwomen, Forresters, Medilink Midlands and Health Innovation West Midlands provided market positioning, financial planning, IP support, stakeholder introductions and bid writing.

CURRENT FOCUS

Building a minimum viable product suitable for clinical trials. Seeking further investment, clinical partnerships for testing, and supply chain partners for manufacturing scale-up.



LBN Innovations

LOUISE BEN-NATHAN, FOUNDER

STAGE

Pre-MVP. Working prototype validated; over £300,000 in non-dilutive funding secured; building toward MVP suitable for clinical trials.

IMPACT

Targets national cervical screening coverage of 68.8% in 2023-24 against an 80% target, with one in three people in the West Midlands declining the offer.

Camera-assisted approach addresses pain and embarrassment, the most commonly cited reasons for missed appointments, with potential to narrow socioeconomic and ethnic disparities.

Cervical cancer claims approximately 800 lives annually in the UK; with early intervention, 99.8% of cases are preventable.

"The WMHTIA is the first programme I have partaken in that offers bespoke support tailored to my company. It has played an invaluable part in helping my innovation progress along the health tech development pathway. I cannot recommend the programme enough."

LOUISE BEN-NATHAN, FOUNDER, LBN INNOVATIONS

A Region With The Foundations To Support The Next Phase

The West Midlands has built more than a programme. It has built a coordinated regional system for health innovation, supported by a network of 21 partners with a cohort of 174 enterprises receiving intensive commercial development. This cohort has collectively attracted £76.9m of co-investment at the close of year 3, £53.8m of it from private sources and £23.1m from public. Of that total, £54.1m is follow-on capital raised by the enterprises themselves to continue commercialisation.

Whilst the Innovation Accelerator pilot phase concluded in March 2026, the model and infrastructure built through it now forms the foundation of the region's next commitment to health technology. The companies presented in this edition are a representative sample of the deal flow, capability, and commercial momentum currently in the region.

For investors, partners and stakeholders considering engagement with the West Midlands health technology ecosystem, the WMHTIA partner network across academia, NHS, manufacturing and professional services remains active.

ESTIMATED REGIONAL ECONOMIC BENEFIT

Four months before the programme closed, City-REDI at the University of Birmingham modelled its employment and GVA effects using the Socio-Economic Impact Model for the UK, based on the R&D and related activity flowing through the programme. 55% of the GVA impact arises in professional, scientific, technical, information and communication sectors - high-value, tradable services.

£85.4m

additional UK GVA supported across 2023-2027, £55.2m (65%) of it in the West Midlands

1,490

job-years supported - equivalent to 300 additional jobs sustained for five years; 74% in the West Midlands

£87.2m

total R&D and related activity through the programme, 76% within the West Midlands

64%

of the additional employment in managerial, professional and technical roles

Source: WMHTIA Pathfinder Report - Year 3 Extension (April 2025 - March 2026), University of Birmingham, September 2026; economic estimates by City-REDI using the Socio-Economic Impact Model (SEIM), figures at the close of year 3.

WMHTIA Partner Network

The activity described in this brochure has been delivered with the support of a coordinated network of partners spanning academia, NHS and clinical care, industry, professional services and ecosystem support.

ACADEMIC AND RESEARCH PARTNERS

Aston University (incl. SPARK The Midlands) – research expertise; UK branch of Stanford's pre-clinical accelerator network

University of Birmingham – multidisciplinary expertise across healthcare technologies, genomics, engineering and economic analysis

University of Warwick – advanced manufacturing expertise; leads innovation networks linking industry, academia and healthcare

Birmingham City University – digital health, software, AI, analytics, cybersecurity and pre-clinical testing

NHS AND CLINICAL PARTNERS

University Hospitals Birmingham NHS Foundation Trust – clinical expertise, testing environments and translational research via Birmingham Health Partners

Our Health Partnership – GP partnership supporting innovation, real-world testing and primary care deployment; runs the Primary Care Accelerator with Harbr

PROFESSIONAL AND COMMERCIAL SUPPORT

Acuwomen – business diagnostics, strategic advice and growth support

Azets – financial, tax and business advisory services

Shoosmiths – legal expertise across life sciences, including IP, funding and commercial agreements

Forresters – intellectual property strategy, patents and regulatory support

Smallfry (Tagdraw Ltd) – human-centred design and product development

INNOVATION, INDUSTRY AND DELIVERY

Manufacturing Technology Centre (MTC) – advanced manufacturing, prototyping and product development support

Bruntwood SciTech / BHIC – lab space, funding, talent and accelerator programmes

Medilink Midlands – industry body for business support, networking, market access and sector expertise

Health Innovation West Midlands – connects NHS, academia and industry to accelerate adoption

Technology Supply Chain – business development, manufacturing connections, investor and NED access

Plug and Play UK – global corporate networks, investors and accelerator programmes

Precision Health Technologies Accelerator – incubation space and specialist support for health and life sciences startups

SPECIALIST PLATFORMS AND ECOSYSTEM

Cogniss – no-code platform for patient-centric digital health applications

Element Materials Technology – product testing, inspection and regulatory compliance

West Midlands Growth Company – inward investment, business location, regional funding access

Locally-led Innovation Accelerators delivered in partnership with DSIT, Innovate UK and City Regions

Department for Science, Innovation, & Technology · UKRI Innovate UK · West Midlands Combined Authority

wmhtia