



LEICESTER'S
RESEARCH 

NHS

University Hospitals
of Leicester

NHS Trust



40 Research and
Innovation Strategy

2023-28

Foreword

The value of clinical research and innovative practice in the NHS to people and society has never been more apparent. Alongside clinical care and education, research is one of the three key pillars of Leicester's Hospitals. We are proud to be research-active, working in partnership with universities, other NHS providers, funders, and the industry and charity sectors, to drive evidence-based medicine.

We also know that research-active NHS trusts have better patient outcomes. Surveys consistently show that patients want opportunities to participate in research and the NHS Constitution gives them this right. People who take part in research rate the experience very highly, improving overall patient satisfaction scores.

Our staff are our most valuable resource. A strong research culture plays a vital role in the Trust's external reputation, and opportunities to conduct research and drive innovation can support the recruitment and retention of an expert workforce. Research and Innovation also drive inward investment and save the NHS money by delivering medicines through clinical trials that are outside standard care.

Leicester's Hospitals have an international reputation for research excellence in the fields of

cardiovascular, respiratory, infectious and renal diseases, diabetes and cancer medicine. We also have growing research portfolios in emergency medicine, intensive care, women's, musculoskeletal, surgery, children's and genetics.

Over the next five years we will embed and consolidate our ethos of partnership research as an integral component of the clinical service offered to patients here. We will offer research opportunities to patients in all specialities and support and incentivise staff to participate.

This document sets out the roadmap for Leicester's Hospitals to grow and develop an already outstanding portfolio of high-quality Research and Innovation over the next five years.

After you have read it, consider how you can contribute to Research and Innovation. If you are a member of the public, you can get involved in



designing research or taking part in trials as a volunteer. If you are a member of staff, you can help recruit patients to studies, include a research goal in your personal development plan, or even consider developing your own research. No matter how big or small, everyone can play a part.

John MacDonald
chair

Richard Mitchell
chief executive

Julie Hogg
chief nurse

Andrew Furlong
medical director

“Research change lives and Leicester is home to high-profile research and very prolific researchers. We want to attract and retain talented clinicians, technical and support staff to Leicester's Hospitals to work alongside and in our clinical services to ensure we have the right people, in the right places because the time is right in Leicester.”

Clare Teeney, Chief People Officer



Key to Abbreviations:

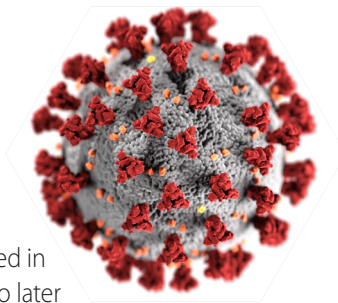
- UHL** - University Hospitals of Leicester NHS Trust (or Leicester's Hospitals)
- UoL** - University of Leicester
- UHN** - University Hospitals of Northamptonshire NHS Group
- NIHR** - National Institute for Health and Care Research
- LLR** - Leicester, Leicestershire and Rutland
- ICS** - Integrated Care System

Introduction to Research and Innovation at UHL

UHL is a large acute trust with an annual income of over £1 Billion, around 1,800 beds and a workforce of 17,000, providing services from 3 hospital sites for the people of Leicester, Leicestershire and Rutland, and tertiary services across the East Midlands and beyond.



**"They saw me as
a person,
not just a patient."**



What we do

We support all types of Research and Innovation, from early phase trials where medicines are tested in people for the first time, to later phase trials in larger numbers of people before approval for general use. We also carry out 'discovery' science, which may involve taking a sample from the body for testing. Simple questionnaires and surveys are used to give us vital data to better understand a range of health conditions. We also take innovative concepts through development stages to their licensing for wider use.

How we do it

UHL is a highly research active trust, with approximately 1000 active studies at any time recruiting around 12,000 patients into NIHR portfolio studies annually. R&I at UHL has an annual turnover of circa £40M and employs nearly 400 members of staff.

Much of our research is embedded in routine clinical areas and UHL has research capabilities on all three acute sites.

Working closely with our main academic research partner, the University of Leicester, UHL has been highly successful in attracting substantial external research funding and is one of very few trusts that now hosts all of the following:

- NIHR Biomedical Research Centre (BRC)
- NIHR Clinical Research Facility (CRF)
- NIHR Patient Recruitment Centre (PRC)
- NIHR-CRUK Experimental Cancer Medicine Centre
- NIHR Clinical Research Network (CRN) East Midlands

COVID-19 pandemic response

During the COVID-19 pandemic, Leicester's Hospitals recruited the highest number of people into COVID-19 related NIHR portfolio studies in the UK, with over 29,500 individuals taking part. More than 95% of patients with COVID-19 who were admitted to our hospitals were recruited to at least one study, with more than 50% entering interventional trials, which means they were given a new treatment or care pathway, in the first 12 months of the pandemic. Leicester led two urgent public health studies. 'UK-REACH' looked at the effect of the pandemic on healthcare workers from ethnic minority backgrounds. 'PHOSP-COVID' investigated the longer-term effects of COVID (now called Long-COVID) on those admitted to hospital. New treatments and care pathways to help people better recover from Long-Covid are now emerging from this study.

Leicester was the UK's highest recruiting centre to the world-renowned 'RECOVERY' trial, with double the number of patients compared to the next highest recruiting trust. Our management of participant recruitment into this study was inspected by external regulators and practices were found to be of a high standard.

Providing an effective clinical research response to COVID-19 taught us:

- Our staff are fantastic and willing to do what it takes to get results
- A flexible, agile and inclusive approach is crucial
- Everyone's voice is important for collective problem-solving
- Structures need to be put in place to allow voices to be heard
- Governance processes can be streamlined to enable rapid set-up and delivery
- Innovative and data-enabled study design fosters better research

This learning informs our five-year strategy.

Collaboration and Partnership

Collaboration and strategic partnership strengthen Leicester's clinical research, and integration of NIHR research, infrastructure in Leicester and across the Midlands is a key objective. We will maximise the collaborative opportunities provided by the newly formed Integrated Care System (ICS) in Leicester, Leicestershire and Rutland (LLR) ensuring that research becomes a key ICS pillar to maximise the impact of research for patients.

As an anchor organisation within the LLR ICS, UHL will take a leading role in the development and implementation of an ICS research strategy focused on the health and wellbeing of all in LLR.



We have robust and long-term partnerships with the University of Leicester (UoL) that have resulted in:

- Joint award of £multi-million research infrastructure grants
- Joint planning of clinical academic appointments
- Award of around 200 honorary academic titles to UHL staff
- Award of the Leicestershire Healthcare Inequalities Improvement Doctoral Training Programme funded by the Wellcome Trust.
- Leicester Institute of Precision Health brings the research expertise and facilities of UoL and UHL together with industry to advance new medicines and medical technology innovations to impact on healthcare for our multi-ethnic population.
- Leicester Academic Health Partners whose aim is to harness our collective clinical and academic excellence to accelerate advances in healthcare.
- UHL works closely with University Hospitals of Northamptonshire NHS Group (UHN) with whom we share a number of joint research appointments and who are partners in our new BRC and CRF.
- Leaders of UHL hosted NIHR infrastructure are partners in the Midlands Health Alliance, a group of internationally recognised experts working together on common clinical questions.



Groundbreaking Research and Innovation

Some of the remarkable achievements of Research and Innovation at UHL over the last 5 years include:

Research Awards

Leicester's Hospitals dominated the 2021 NIHR Clinical Research Network East Midlands research awards, being shortlisted in 6 categories and taking home five trophies.



Ethnic Minority Covid-19 Risk

Research conducted at our NIHR Leicester BRC has shown that increased COVID-19 risk in ethnic minority healthcare workers is likely due to work and home factors rather than biology.



GLP-1 Receptor Agonist

The diabetes team were instrumental in three landmark international trials showing the efficacy of a new GLP-1 receptor agonist in combination with intensive lifestyle therapy in suppressing appetite and promoting long-term weight loss.

Landmark trials



PHOSP-COVID study

The PHOSP-COVID study showed that people who were hospitalised with COVID-19 and not fully recovered after five months made little further recovery after a year.



New Community Research

More than 600 members of the public contributed to new research questions and study designs that meet the needs of patients and the community.



The EMPEROR study

The
EMPEROR study
demonstrated
overwhelming benefit in
reducing death and heart failure
hospitalisation when SGLT-2 inhibitor
glucose lowering medication was added
to routine care for heart failure
patients, resulting in changes to
international treatment
guidelines.

Global treatment guidelines



DESMOND

DESMOND, and
its digital offshoot,
'MyDESMOND', is an
evidence-based
education and
support package
developed in
Leicester for
people with or
at risk of type
2 diabetes.



Activate Your Heart

Activate Your
Heart developed
out of the cardiac
rehabilitation
department at UHL. This
online cardiac rehabilitation
programme is now
supported by NHS
Improvement.



We validated the
Kidney Failure Risk
Equation, which is
the most accurate
and efficient way of
finding out a
patient's risk of
kidney failure.

Kidney Failure Risk Equation



CONFIRM Trial

The CONFIRM
trial is the first time
a placebo-controlled
phase III trial has shown a
medicine (Nivolumab)
increases survival benefit in
patients who have
relapsed
mesothelioma.



Global First

In November
2021 we
recruited a
global first
participant to a
children's pertussis
vaccine study.

Pertussis Vaccine Study



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Our Vision and Strategy 2023-28

To be a leader in delivering outstanding healthcare research fully integrated into clinical services that translates rapidly into service improvements and novel education programmes for the benefit of patients, public and staff.



In the next five years we will:

- Help nurture a culture of Research and Innovation across all clinical areas, supported by our world-class research infrastructure and investigators, and a highly skilled and diverse research workforce.
- Embed Research and Innovation in Trust clinical reconfiguration planning
- Become an NHS acute trust that offers research opportunities to every patient wherever possible
- Drive a culture of Research and Innovation across all clinical areas, supported by world-class research infrastructure and a highly skilled and diverse research workforce
- Host some of the world's leading experts in their fields, and develop new ones
- Continually work in partnership to deliver impactful Research and Innovation that changes lives for people in our communities - locally, nationally and internationally
- Starting with our communities: we will work with them to answer the most pertinent health questions and address health inequality in LLR, now and in the future
- Continue on our trajectory to be at the forefront of research delivery and discovery science locally, in the UK, and on the global stage.



PRES 2021-22 findings

- For 83.4% of the 274 respondents who completed the annual 'Participants in Research Experience' Survey, it was their first experience of taking part in a study.
- 97% agreed or strongly agreed that 'the researchers have valued my taking part in research'.
- 98% agreed or strongly agreed that 'the staff treated me with courtesy and respect'.
- 97% agreed or strongly agreed that they would 'consider taking part in research again'.
- However, only 45.6% were confident that they knew how they would receive the results of the study, and only 60% agreed or strongly agreed that they felt they had been kept updated on the research as it progressed. To address this, from 2023 we will introduce a 'Research Connected' toolkit to support research teams to stay in touch with participants. This will be co-created with research staff and public contributors.

Patients and Public

People-driven research

Clinical trials cannot take place without participants and public contributors can make a dramatic difference at every stage of the research pathway - shaping priorities and research questions, the design of studies, the evaluation of research proposals, the conduct of research, and the dissemination of results.



We will increase opportunities for patients to participate in research studies and for patients and members of the public to engage and shape our research priorities. We will ensure that equality of access to research information is provided to all patients and all communities locally.

To achieve this, we will:

- Increase the overall number of clinical trials open at UHL
- Support all clinical specialities at UHL to engage in research
- Use all social media platforms to improve knowledge about clinical research and the benefits of participation
- Share our research findings in a clear, accurate and transparent manner, and use innovative engagement techniques to disseminate our work in an inclusive way
- Map all public involvement provision across our research teams and infrastructure to highlight what is working well and where there are gaps
- Build on the public involvement expertise in the BRC to support upskilling of other groups

- Ensure that participant feedback is routinely collected and made publicly available across all portfolio studies
- Train and support researchers to include public contributors at each step of the research cycle
- Build on our successful projects that reach out to and empower underserved communities, such as our Community Researchers
- Continue to develop Leicester's Research Registry of research interested members of the public.

Leicester's Hospitals will be a place where our research reflects the health needs and aspirations of the communities we serve. We know that different communities require different support to access healthcare and research studies. Continuing to develop relationships with our local people means we can better shape our research questions and ensure we reflect the needs and priorities of our communities.

This document was reviewed by our Public Research Engagement Panel in December 2022.

Community researchers

A recent UKRI project secured £35k to train and work with 5 Community Researchers (CRs) to find health and research priorities in their own communities. The information they collected fed directly into the BRC application. The CRs effectively engaged consultees from typically underserved communities - people of working age, and those from black and Asian backgrounds. We received further funds to support activity specific to the pandemic to help show factors underpinning high rates of COVID infection in these neighborhoods for a Health Data Research UK project, and to also understand community perspectives on tissue and data bank participation for the EXCEED project. Further CRN support enabled us to develop good practice resources to help other BRCs and the wider NIHR family adopt this approach.



Place, People and Partners

At UHL research is integral to the clinical service that we provide. We will nurture a culture that promotes research and an environment that is conducive to research. We will deliver research studies to the right person, at the right time and in the right setting for them.

UHL's staff are our most valuable resource, and we will support research workforce engagement and development for all staff groups. Our flexible workforce model has been a great enabler of Leicester achieving more (see pandemic highlights box).



Continuing to support the development of our talented investigators and researchers is crucial, since 'growing our own' is the most effective way to expand the number of opinion leaders and experts in Leicester. Offering opportunities for all allied health professionals, nurses and midwives to access research training positions and encouraging them to become study principal investigators leading their own studies is central to our workforce strategy.

Place

We will:

- Ensure that the 'research voice' is heard at Executive level in UHL
- Work to embed a 'research is clinical service' ethos from 'board to ward' across UHL
- Ensure research requirements are integral to trust reconfiguration planning
- Strategically plan expansion in research facilities at UHL as research activity grows, especially aiming for new clinical academic developments at Glenfield Hospital aligned with the UHL reconfiguration programme
- Deliver the Get Research Going programme, to build critical research mass in areas of the Trust that have low levels of research activity to date.

People

We will:

- Strengthen research input into UHL corporate induction and other staff welcome schemes at the Trust
- Develop our flexible workforce model to provide new opportunities for the research teams
- Deliver our research strategies for

Nursing, Allied Health Professionals and Clinical Research Practitioners

- Support our people at all stages of their careers to enter programmes like the:
 - NIHR Associate Principal Investigator Scheme
 - NIHR Academy training award schemes
 - NIHR Clinical Research Network Research Scholars Programme
 - Masters and PhD programmes
 - Clinical Research Practitioners Directory.
- Develop our Research Champions and Senior Research Champions programmes
- Integrate research attachments into junior doctor foundation training programmes
- Offer regular research modules to medical students
- Use the 'Conducting Research at UHL' survey to improve our research
- Listen to our staff through an R&I Voices programme

Partners

We will:

- Take a leading role in the development and implementation of an ICS research strategy
- Host the operations staff for the Midlands Health Alliance, the new primary care research management function, and the NIHR Clinical Research Network East Midlands
- Align governance processes between us and UHN so that researchers and organisations working with both NHS trusts and partner universities have access to the same systems
- Strengthen the Joint Research Office between us and the University of Leicester.

Health inequalities

We want to develop a place where people feel valued and supported, and in turn value and support each other, regardless of their background and identities. We will challenge inequality and be honest about where we need to improve to meet our ambition of inclusivity.

Leicester is the most diverse city in the UK and our Research and Innovation needs to reflect and serve our populations – participants and staff alike.

We are committed to:

- Increase the percentage of people from non-White backgrounds who take part in our research
- Work with underserved communities, in partnership with the Centre for Ethnic Health Research, to create research programmes that are mutually beneficial
- Provide evidence to influence the decision-making processes of the Integrated Care System on what works to address health inequalities
- Support and develop a diverse research workforce that better reflects the population it serves

We have a joint statement on Equality, Diversity and Inclusion with the University of Leicester to cement this approach.

Performance and Delivery

Clinicians want to offer more research studies to their patients as quickly as possible. Delivering high volumes of complex clinical research at UHL requires significant investment into the management of research governance and operations. These under-appreciated, yet vital research 'back-office' functions are essential and helped ensure that Leicester excelled at clinical research delivery during the COVID-19 pandemic (see 'Pandemic' highlights box). Nonetheless research governance processes must be proportionate and more can be done to simplify and streamline this activity to make life easier for investigators at UHL, the University of Leicester and across the entire LLR ICS.



As we recover from the impact of COVID-19 at UHL we are fortunate to have been awarded substantially increased external research infrastructure funding. Specifically, the NIHR Leicester BRC funds early discovery science, the NIHR Leicester CRF supports early phase clinical trials and the NIHR PRC: Leicester supports later phase commercial trials. These resources will allow us to fully recover and grow our research portfolio over the next 5 years.

To become the best performing acute NHS trust in the country for research, we will:

- Develop closer joint research office working between UHL and the University of Leicester
- Support integrated research office functions across the LLR ICS
- Use our NIHR funded research infrastructure to support all UHL investigators to open more clinical trials
- Streamline elements of the research trial set up process to make this easier by more actively managing trial expressions of interest assessments and trial set up processes
- Significantly increasing numbers of early and later phase trials opening at UHL
- Ensuring a balanced portfolio of commercial and non-commercial studies
- Reducing the time taken to recruit the first participant into a study
- Setting ambitious but realistic targets for trial recruitment to time and target
- Working more actively with study teams to manage an increase in trial recruitment.



Opportunity for Innovation

Innovation typically flows from research, where results of clinical trials often translate into new treatments for patients. However, innovation in the NHS is much broader than this and diverse, innovative ideas commonly originate from colleagues' everyday experiences at work. These may encompass areas such as education, healthcare data and medical technology.

Examples include: virtual wards, where patients are treated and monitored in the comfort of their homes; testing the ability of AI to detect the presence of lung cancer; and, using education programmes to support children newly diagnosed with type 1 diabetes manage their condition.



However, whilst the NHS is a potent source of innovative ideas, developing an idea into an implementable product or application can be very challenging. National schemes and structures, such as Academic Health Science Networks (AHSN) and the Accelerated Access Collaborative, and local organisations, such as the University of Leicester Innovation Hub and Leicester Institute of Precision Health, have been established to help innovators in the NHS and we are committed to assisting colleagues to negotiate this landscape in the future.



“UHL has an excellent track record of delivery and we have worked hard to further cement our reputation as an NHS trust who can deliver on research targets such as number of people recruited to studies. We are also pioneering a ‘proportionate and pragmatic’ approach to research approvals which will further improve the efficiency and speed of our internal processes. Our ambition is to work in partnership to provide excellence in research.”

Jon Melbourne, Chief Operating Officer

We will:

- Work with colleagues in the Trust and across the ICS to develop the information technology that enhances access to healthcare data for research from patients receiving care in hospital, virtual wards and in the community
- Ensure the Intellectual Property policy at UHL is updated in line with current standards for NHS trusts
- Work with AHSN to communicate innovation opportunities to all UHL staff more frequently
- Design innovation challenge competitions for UHL staff
- Encourage staff to apply to the NHS Clinical Entrepreneur Programme



- Provide a focal point linking UHL innovators into local and national innovation support schemes
- Provide a responsive contracting service.





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Get Involved in Research

For more information email:

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or visit:

www.leicestershospitals.nhs.uk/research

