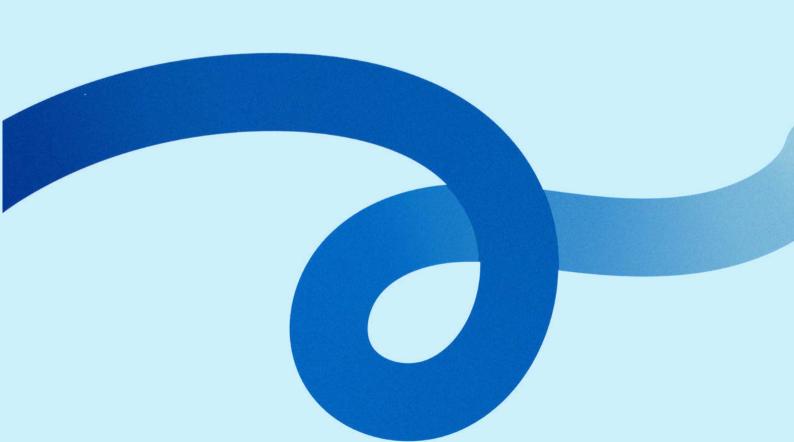


Research and Innovation

Annual Review 2024/25



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Introduction

Research and innovation are essential for continuous improvement in healthcare. They offer substantial benefits to patients by bringing opportunities to access the latest medical advances, ensuring treatments are clinically and cost-effective. They drive up the quality of care even among patients who do not personally participate in research.

Research and innovation bring opportunities for involving patients and the wider community in shaping health care, support financial sustainability of services and can create substantial economic benefits across local communities.

Hospitals with a strong research culture are also more fulfilling places to work providing distinctive opportunities for staff development. They benefit from retaining and developing expert motivated staff. For all these reasons, the Trust has placed Research and Innovation at the heart of its ambitions for the future.

University Hospitals Sussex NHS Foundation Trust (UHSussex) is among the largest teaching hospital trusts in England and takes pride in its strong commitment to collaborating with local system partners, including social care, to enhance health outcomes through research and innovation. This collaborative approach supports a shared mission of improving lives by advancing prevention, diagnosis, treatment, and recovery through high-quality research.

This year, the Sussex Health and Care Research Partnership (HCRP), in collaboration with the Sussex Integrated Care Board (ICB) and other key stakeholders, has launched the NHS Sussex research strategy: Improving Lives
Together through Research. This five-year
strategy outlines a collective vision for research
across health and care services in Sussex, setting
out how it will contribute to better health,
improved care, and more responsive services.

Looking ahead, our new Trust Strategy 2025-2030, Excellent Care Everywhere, defines our vision and ambitions for the next five years. Central to this is our goal to become a regional leader in research and innovation by 2030. This includes the development of new Clinical Research Facilities and a Commercial Research Delivery Centre, which will give patients in Sussex guicker access to pioneering treatments and support new partnerships with the life sciences sector to generate additional income. We will also continue to develop one R&I infrastructure, maximising the benefits of working between our hospitals: to achieve together what we wouldn't be able to do alone.

We are proud to present our Annual Review, highlighting the progress and achievements in Research and Innovation across UHSussex over the past year and looking forward to how Research and Innovation will help the Trust to achieve its strategic ambitions for 2030.



Professor Martin Llewelyn, Clinical Director for Research and Innovation



Viv Colleran,
Operational Director
for Research and
Innovation

Contact Martin and Viv at: uhsussex.ridirectors@nhs.net

Excellent care for our patients

Embedding a culture of research

A major initiative introduced this year has been the appointment of nine new divisional research leads. These senior clinicians, each with strong research leadership experience, are now working alongside divisional chiefs and leadership teams to advance our goal of integrating research into the Trust's clinical operating model supporting specialties develop business plans that drive research growth. Central to these plans is the integration of research roles within the workforce. This approach will expand the number of active studies across Trust sites, offering more patients the opportunity to take part in research, improving the quality of care we deliver, and providing earlier access to innovative treatments. We also have a great opportunity to conduct research that helps us provide better quality and better value health services across our Trust. AI has potential to improve workload management for our teams, and other technology can help us reduce the time and cost of many daily tasks. Our research will align with our commitment to continuous improvement, allowing us to focus our resources on patient care.



















Supporting excellence

With our partners, especially Brighton and Sussex Medical School, we are seeking to ensure research drives excellence where there are opportunities for strategic collaborations. These Clinical Academic Centres of Excellence, will be at the forefront of our work to advance treatment and improve patient outcomes. In addition we will explore research opportunities that may arise as the Trust further develops centres of excellence.

The Sussex Cancer Research Centre (SCRC) is a collaborative initiative involving researchers from Brighton and Sussex Medical School (BSMS), the University of Brighton, the University of Sussex, and clinicians from NHS trusts across Sussex. Clinical research at the Centre is led by Dr Duncan Gilbert, with a focus on improving cancer treatments

and outcomes for patients in the region. As we progress toward the redevelopment of cancer services, including the creation of a new Cancer Centre at the Royal Sussex County Hospital, the SCRC will play a critical role in embedding research within the delivery of high-quality cancer care.



The Centre for Infection and Antimicrobial Resistance Research (CINAMR) builds on the internationally outstanding research delivered through our regional infectious diseases and HIV services developed in collaboration with BSMS. Dr James Price leads the Trust's involvement, focusing on implementing cutting-edge technologies to reduce healthcare-associated infections.

Looking ahead, we anticipate the development of similar centres in other areas of clinical research strength across the region, including cardiology, paediatrics & neonatology, and critical & perioperative care.

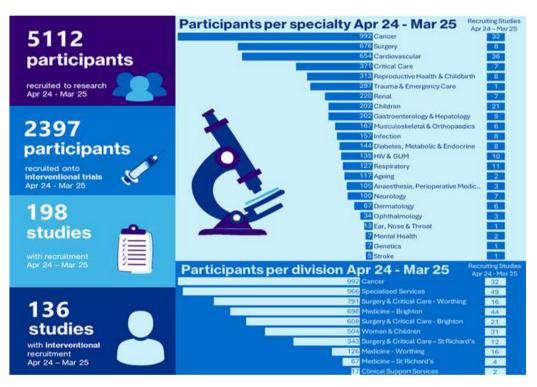
Research delivery 2024/25 - increasing opportunity and access to clinical trials

Over 2024/25 we have focused on growing and broadening the opportunities for our patients and staff to take part in research.

A total of 5,112
participants were
recruited into 198 studies
running across a range of
clinical specialities. We
have achieved our NIHR
Regional Research
Delivery Network (RRDN)
annual target for growth
in recruitment of

participants into National Institute of Health Research (NIHR) portfolio studies. When benchmarked against other NHS acute trusts, our rank is 24th for number of studies recruiting during 2024/25. Of the studies open to recruitment 136 (68%) were interventional studies that offered 2,397 patients access to potentially lifesaving clinical trials of new medications, devices, or procedures.

In line with our strategic objective, we have increased the number of recruiting commercial studies by 5% compared to the previous year.



The Trust's research outputs continue to excel across cancer, cardiovascular disease, infectious diseases, renal, paediatrics and women and children's medicine. Following developmental work with other specialities including respiratory, gastroenterology and surgery, opportunities to grow patient participation in trials will widen in the coming years.

We could not achieve this without the dedication and hard work of our fabulous research workforce and the support of all our divisional colleagues constantly striving to improve care and treatments for patients at the Trust and across our wider community.

Promoting research participation

NIHR Be Part of Research

We actively promote research opportunities at UHSussex and encourage patients, families, and staff to join the national NIHR <u>Be Part of Research</u> registry. This free platform enables individuals to find and participate in vital health and care research across the UK.



Understanding Patient Views

To assess patient awareness and interest in research, we conduct an annual outpatient survey. In the most recent survey:

- 59% of patients were aware that UHSussex is research-active
- 47% expressed interest in participating in research
- Only 13% reported having research discussed during their care

Additionally, the NIHR Patient Research Experience Survey continues to provide positive and valuable feedback, helping us improve the research experience for participants.



Excellent care for our communities

Widening participation and community engagement

Engaging the public in research

Our Research Engagement Group, made up of staff and public representatives, drives initiatives to raise awareness and promote research involvement across our hospitals and wider community. Our community engagement helps to improve inclusion in research and ensure that people facing health inequalities have access to research and innovation. Key activities this year included:

- incorporating research into patient information materials
- hosting public science cafés and Trust-wide pop-up events
- promoting the NIHR Be Part of Research campaign
- support from our patient Research
 Champions volunteers advocating for research among underrepresented groups has been integral to this work.

Research champions



Sussex Research Engagement Network (REN)



In October 2023, Sussex Integrated Care System (ICS), in partnership with Brighton and Sussex Health and Care Research Partnership (HCRP) was awarded funding from NHS England to work in partnership with voluntary, community and social enterprise (VCSE) organisations across Sussex, with the aim to engage minoritised groups from areas of deprivation and to improve research participation.

With additional funding through the My University Hospitals Sussex Charity, the REN was established with key aims to:

- Create a regional network of diverse community researchers to support Sussexbased health and care research.
- Build the capacity and capability of community researchers through development training and qualitative interviewing experience.
- Engage minoritised groups from areas of deprivation in Sussex and investigate how to improve their participation in health and care services and research.

With a local focus on Racially Minoritised / Global Majority communities and Lesbian, Gay, Bisexual, Transgender and non-binary people, local VCSE partners recruited fifteen community researchers who are members of these communities. The community researchers received training and support to interview community members from targeted areas of deprivation across Sussex, with interviewees recruited by wider place-based VCSE partners, thus broadening the partnership working integral to the REN.

Community Research Activities

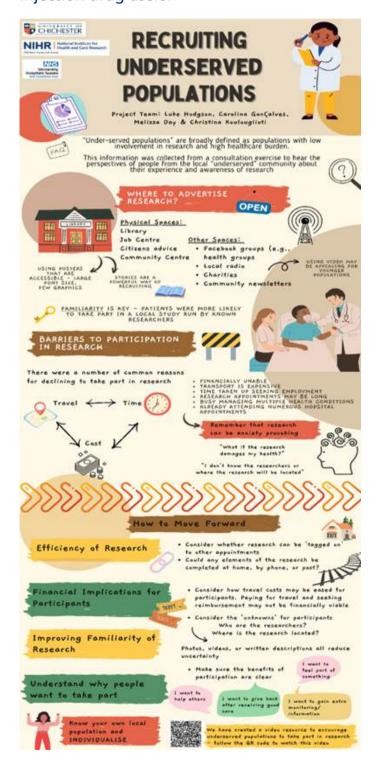
This year the Sussex REN hosted several initiatives including:

- Building Partnerships for Impact workshop, bringing together 36 stakeholders to share insights on community-led research
- Research Ready Community Workshops, codesigned with public health teams and local voluntary, community and social enterprise (VCSE) partners to build research skills and confidence
- Participation in the Sussex Mental Health Research Centre launch, fostering crosssector collaboration

National recognition and expansion

In September 2024 and March 2025 NHS
England provided two allocations of further
funding to develop a Mental Health REN and
support the Centre for Infection and
Antimicrobial Resistance Research (CINAMR).
These were competitive awards nationally.
Sussex is now one of only four Mental Health
RENs from across all ICBs. The Mental Health
REN has co-developed a small grants
programme where community researchers have
applied for grants of £7,000.

Project aims are to focus on exploring how to engage women and people who use women's health care services in mental health research using creative methods. The infection REN award will support CINAMR develop community engagement building on the Sussex RENs previous work with the transgender community and developing new work with the region's injection drug users.



Excellent care for the future

New NIHR Sussex Commercial Research Delivery Centre



We are delighted that UHSussex has been awarded almost £3.5 million to establish a Commercial Research Delivery Centre (CRDC). The centre, which is one of 21 being set up across the UK as part of a £100 million government investment, will enhance the speed and efficiency of commercial clinical research, providing more people in Sussex with access to cutting-edge treatments.

Led by Prof Martin Llewelyn and hosted by UHSussex the Sussex NIHR CRDC is a collaboration with Sussex Partnership Foundation Trust. It will have a strong focus on community facing research involving primary and community care providers in Sussex. In addition to helping us grow clinical research opportunities for our patients, the CRDC will help to develop UHSussex as the region's hub for health and care research. It will allow us to broaden our research to include mental health. disease prevention and research conducted in community settings. It will help develop research skills in the health and care workforce and bring opportunities for jobs and economic growth across the region.

Developing Sussex Clinical Research Facilities

As part of its new 2025–2030 strategy, University Hospitals Sussex is committed to developing its clinical research facilities recognising that they are our distinctive part of shared clinical research infrastructure and reflecting our position as the leading research-active acute care provider within the region's Integrated Care System.

These ambitious plans include upgrading our central acute facilities for clinical research with a new central Clinical Research Facility (CRF) in the Lousia Martindale Building at Brighton. This will create new capabilities for earlierphase and commercial research as well as additional capacity and improving access to research for more patients and the public.

New outpatient research capability and capacity at Haywards Heath and Worthing Hospitals. This will facilitiate community participation especially among the rural and coastal communities of mid and west Sussex and allow us to build new collaborative delivery of mental health research in collaboration with Sussex Partnership NHS Foundation Trust (SPFT).

Recognising the strategic importance and scale of work planned, the Trust has established a Major Project overseen by the Chief Strategy Officer and Chief Medical Officer and led by the Director of Research.





Innovation at UHSussex

UHSussex is home to many outstanding examples of innovation, which plays a crucial role in driving positive change, enhancing patient experience, and improving health outcomes. Increasingly, innovation - particularly through digital technologies like Artificial Intelligence (AI) - is seen as a key solution to many of the challenges facing the NHS.

In June 2023, the UK government announced a £21 million Artificial Intelligence Diagnostic Fund to support the integration of AI into NHS services. University Hospitals Sussex successfully secured funding through a joint bid with the Surrey, Sussex and Frimley Imaging Network.

The network was awarded £2.3 million, with £630,000 allocated specifically to the Trust. This funding supported the rollout of a groundbreaking AI tool called Annalise.ai, which aids in the early detection of lung cancer.

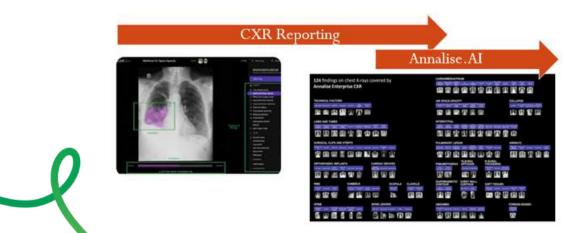
The tool analyses chest X-rays to identify potential areas of concern, helping clinicians

prioritise urgent cases more effectively.

Previously, X-rays were reviewed strictly in chronological order. Annalise.ai is capable of detecting up to 124 conditions on chest X-rays within seconds, assigning a priority score from 1 to 4. It also flags subtle abnormalities that might otherwise be overlooked. The tool was trained on a vast dataset of over 750,000 chest X-rays from three continents, encompassing a diverse range of equipment and patient demographics.

Validation studies have demonstrated improvements in both accuracy and efficiency. Annalise.ai went live at UHSussex in November 2024 for adult outpatients, with plans to expand its use to inpatients, emergency departments, and younger patients in the near future. An audit is currently underway, incorporating insights and lessons learned from partner trusts within the network.

By enabling earlier diagnosis, this technology has the potential to streamline cancer pathways and significantly improve patient outcomes.



Excellent care for our people

Developing research leaders



This year, we have prioritised building the research training and development infrastructure needed to expand our workforce's research capacity and capability. Providing research education and training for all staff is essential to embedding research within our clinical services. Additionally, offering research career pathways helps position us as an employer of choice supporting the recruitment, retention, and development of high-quality staff. To support this, we established a multiprofessional Research Education Group and launched the UHSussex Research Education Hub on IRIS - a centralised portal that offers a broad range of research training opportunities for all staff.

We have also focused on developing the next generation of Principal Investigators (PIs) through the NIHR Associate Principal Investigator Scheme. PIs are responsible for leading research studies at a site, and the Associate PI Scheme provides a six-month, inwork training programme that gives healthcare professionals practical experience in clinical

research. It offers those who may not typically be involved in research the opportunity to contribute to NIHR portfolio trials under the mentorship of a local PI. Associate Principal Investigators gain hands-on experience and receive formal recognition of their involvement, endorsed by the NIHR and relevant Royal Colleges. This year, 227 staff members acted as Principal Investigators—a 12% increase compared to the previous year. We also saw a substantial 82% rise in staff participation in the NIHR Associate PI Scheme, with 107 Associate PIs now enrolled. This growth reflects a positive shift in building investigator capacity across the Trust.

Associate Principal Investigator Scheme, NIHR



My UHSussex Research Career Development Programme

In partnership with My University Hospitals
Sussex Charity, UHSussex has launched a
comprehensive Research Career Development
Programme to increase research engagement
and create structured development
opportunities for healthcare professionals at all
stages of their research careers. The programme
is designed to embed research into everyday
clinical practice, attract and retain high-quality
staff, and cultivate the next generation of
research leaders who will drive improvements in
care and outcomes across Sussex.

Fellowship Pathways

The programme currently comprises three key fellowship schemes:

My UHSx Research Internship Fellowship

This 12-month, cohort-based initiative supports healthcare professionals new to research, offering 7.5 hours per week of funded time to explore clinical academic careers. The internship is structured around four core areas—personal development, research project delivery, patient/public engagement, and collaborative networking.

The first cohort, launched in mid-2024, included 16 participants across a range of professions and clinical divisions. Fellows have already progressed to submitting applications for further research fellowships, delivering conference presentations, publishing academic work, and building collaborative networks. The second cohort, which commenced in March 2025, includes a similarly diverse group of professionals from across all main hospital sites.

My UHSx Research Accelerator Fellowship

Tailored to individuals preparing applications for doctoral or post-doctoral research fellowships, this scheme provides up to 18.75 hours per week of protected research time. The 2024 cohort supported three practitioners (two post-doctoral, one pre-doctoral), while the 2025 cohort welcomed three additional pre-doctoral candidates now actively developing PhD proposals.

My UHSx PhD Fellowships

These fellowships provide funding for academic fees, salary (up to Agenda for Change Band 8A or Medical Grade ST5), and a contribution to research costs, with options for full-time (three-year) or part-time (up to six-year) study. Initial recruitment in late 2024 identified several strong applicants aligned with Trust divisional and population health priorities.







Advancing equity, diversity and inclusion in research careers

The fellowship programmes are underpinned by a strong commitment to equity of access, diversity, and inclusion, with focused efforts to address the under-representation of certain professions and groups in health research.

Recruitment to the first cohorts in 2024 successfully attracted a broad range of applicants. However, analysis identified two key areas for improvement: under-representation of some eligible professional groups and challenges faced by internationally educated practitioners in the application process.

In response, a more inclusive recruitment strategy was implemented for the 2025 cohorts. This included enhanced internal communications, divisional engagement through Research and Innovation Directors, and targeted support via two live webinars:

- "My UHSx Internship & Accelerator Q&A" provided programme overviews and application guidance.
- "Understanding the UK Research Landscape" offered tailored advice for internationally educated practitioners.

Both webinars were recorded and made available on-demand. These activities form part of an ongoing commitment to widening participation and supporting a more inclusive research environment across the Trust.



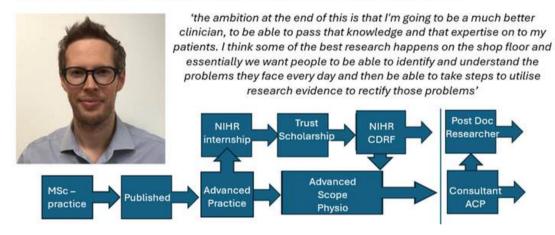
Dr Soumely Madell My UHSx Research Accelerator Post Doc Fellow & Clinical Audit & Guidelines Midwife

Why is it important for health & care practitioners to be leading research?



Richard Holmes, Clinical Doctoral Research Fellow HEE/NIHR & Extended Scope Physiotherapist (ACP) Stroke

How will your PhD contribute to your role as an Advanced Practitioner?



New Health and Care Research Hub

The Sussex Health & Care Research Training Hub, launched in May 2024, was established to support the research career development of health and social care practitioners across the Sussex region. The Hub offers a broad range of free opportunities, including regular research training events, tailored research advice, networking sessions, online resources, and an annual conference each July.

The Sussex Clinical Academic Conference held in July 2024 drew over 100 attendees from a wide range of professional backgrounds and organisations. In the same month, the Hub introduced a new Research Careers Advisory Service, offering personalised guidance on research career pathways for professionals across all health and care settings.

To further shape the Hub's development, a regional research careers development survey was conducted in late 2024.

Recognising the significant under-representation of nurses in research roles, the Hub also supported the launch of the Sussex Nurses' Research Network in November 2024. This growing network now includes members from diverse clinical and academic settings throughout Sussex.



Research impact

The research that we undertake helps to develop new treatments, and tackle health, wellbeing and care challenges for the benefit of populations locally, nationally and internationally.

In addition to publicising research findings, we track the impact of our research through BMJ Impact Analytics, an impact tool focused on health and social care research publications which shows the influence of our work on patient treatment, using the citations in BMJ Best Practice as well as national guidelines and guidelines published by key medical societies in the United States, Australia and New Zealand.

These insights show how research by UHSussex staff is having an impact on healthcare service delivery across the world.

UHSussex research (April 2023 – March 2025) was cited in 440 health guidelines or policy documents during this period, from 159 publishing bodies across 24 countries. These citations include:

- 38 from NICE
- 18 from Canada's Drug Agency
- 10 from the UK Government
- 7 from the European Academy of Allergy and Clinical Immunology

Global Impact

Some of our many research news stories on our website...



Thursday 26 September 2024

Leading Sussex surgeon honoured for global contributions to hearing care

Our people and Research



Friday 20 September 2024

Digital innovation in cardiac rehab improving care of patients with heart conditions

Research



Friday 6 September 2024

Sussex cardiac clinic receives international recognition

Our people and Research



Tuesday 16 July 2024

New study about treating fatigue in patients with advanced cancer

Research



Friday 7 June 2024

UHSussex research study challenges age norms in hip replacement surgery

Research



Thursday 25 April 2024

Study led by UHSussex colleagues shows digital comfort checks improve quality of end-of-life care

Patient First and Research

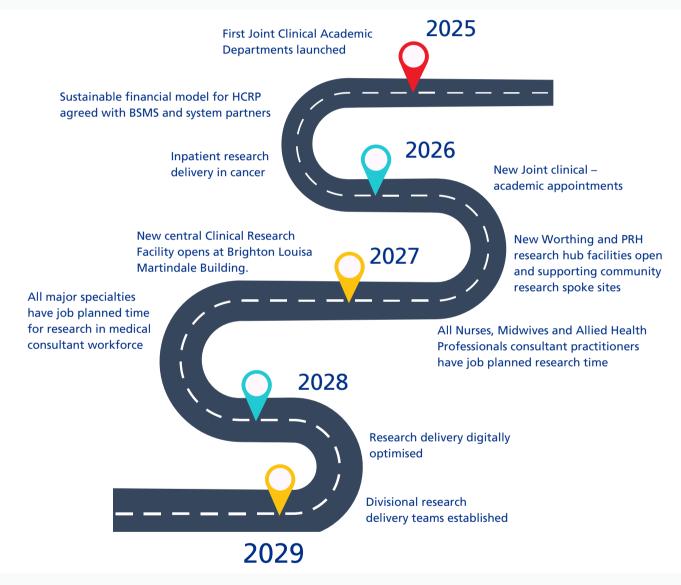
Read these and more at uhsussex.nhs.uk/research

Looking forward - our roadmap

As is 2025

- 5-6000 research participants per year.
- Handful of clinical services delivering most of our research.
- Research focused on acute care and treatment.
- Partnerships beginning to develop through HCRP community engagement improving through the REN
- Untapped potential for economic development through research
- Delivery dependent on paper-based, analogue processes
- Estate not fit for the future

- Research revenue limited by research infrastructure workforce and partnership opportunities
- Most research delivered by specialist workforce
- Research career development opportunities launched
- Limited embedded research time in medical workforce
- Well integrated research leadership and delivery team
- Evolving hub and spoke research delivery structure



Planned 2029

- >10,000 research participants per year.
- Equal opportunities to participate Trust-wide, across major specialty areas.
- Research-driven improvements in quality of care and experience and reduced inequalities.
- Balanced research portfolio: access to novel treatment.
 opportunities through research at the same level as other tertiary
 centres, strong community facing and prevention research,
 strong locally-led research driven by community needs.
- Research-driven inward investment and economic development.
- Nationally leading best value for money research delivery through digitally enabled processes.
- Latest agile trial designs supported by digital maturity.

- State-of-the-art facilities supporting hub and spoke research delivery Trust-wide.
- Specialist agile research workforce supporting embedded research capacity and capability across the clinical workforce.
- Established divisional research teams in clinical operating model
- Research-enhanced career opportunities for staff: improved recruitment, retention and development of highly-skilled workforce.
- One research team working through a fully integrated hub and spoke delivery model to deliver Trust-wide embedded clinical research.
- Financially thriving CRDC delivering research in partnership across the integrated care system.

Our research teams

Thank you to our wonderful research teams across our hospitals. Some of our colleagues are pictured below....



Today's research is tomorrow's treatments. That's why UHsussex is proud to be a research-active trust.

Find out how you can get involved. Visit our website:

www.uhsussex.nhs.uk/research-andinnovation/information-for-patients-andpublic or scan the QR code.



Follow us on Instagram: @uhsussexresearch

