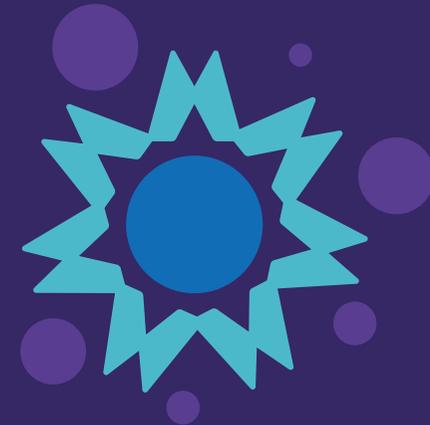


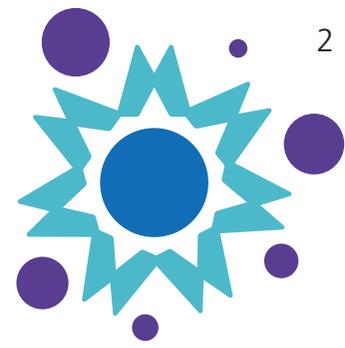


2023  
- 2024

# Delivering Change Together

Manchester University  
NHS Foundation Trust  
Research and Innovation  
Annual Report





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## FOREWORD

### I am delighted to present our Research and Innovation (R&I) at Manchester University NHS Foundation Trust (MFT) Annual Report for 2023-2024.

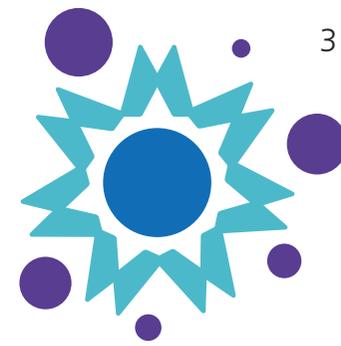
This period, from 1 April 2023 to 31 March 2024, covers my first year as Chief Executive at MFT, and it has been fascinating to see up close the scope and breadth of R&I taking place across our hospitals, our hosted National Institute for Health and Care Research (NIHR) infrastructure, and very excitingly, out in our communities, ensuring more people than ever can now access and participate in cutting-edge research and innovation.

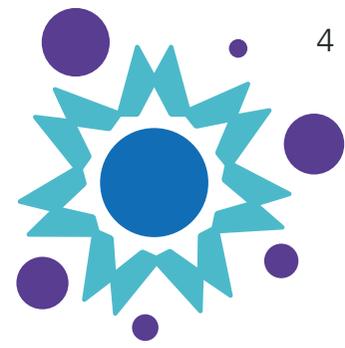
As we look towards a new future for the NHS and for healthcare, earlier this year we launched our new organisational five-year strategy for MFT, *Where Excellence Meets Compassion*. The strategy refreshes our mission of working together to improve the health and quality of life of our diverse communities, and sets out five strategic aims for the organisation. One of those aims is to 'Deliver world-class research and innovation that improves people's lives'. The outstanding work you will read about in this report is what gave us the confidence and belief to enshrine that aim into our strategy.

The significance of R&I as a core part of the work we do at MFT is something in which we take great pride. Our researchers and innovators, as well as our vital partnerships with local universities, NHS and other public organisations, commercial companies, the voluntary sector, and others, give us the strongest

base on which to build. We have the opportunity and ambition to do even more, and we will grow and develop our R&I over the next five years to make ever greater improvements to people's lives.

**Mark Cubbon**  
Trust Chief Executive





## INTRODUCTION FROM PROFESSOR RICK BODY AND PROFESSOR IAIN MCLEAN

Thanks to the hard work and devotion of all colleagues involved in setting-up, supporting, and delivering Research and Innovation (R&I) at MFT, and to all our study participants, 2023-24 was again, another fantastic year.

Across MFT, the importance and value of research and innovation in improving the lives of our diverse service users, local communities, and the wider healthcare landscape, is clearly recognised.

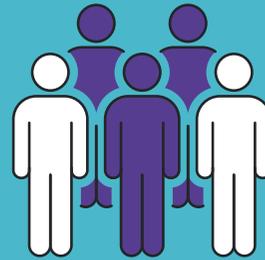
We have worked together, both across MFT, and with our NHS, academic, and commercial partners to ensure that everything we do is both high quality and efficient, and endeavour to provide the best possible environment for our world-leading research and innovation to flourish.

In the summer of 2024 we launched our new five-year [Research and Innovation Strategy](#), aligned to the new overarching MFT Strategy; Where Excellence Meets Compassion. Our new Strategy will ensure everything we do is based in understanding the needs of our service users, our communities and our NHS services.

The reason we are confident to commit to, and take this bold strategy forward is because of the outstanding achievements of our dedicated and exceptional staff over the last five years. We have seen some astounding achievements, from the vital role colleagues played during the COVID-19 pandemic to our early career researchers in obtaining fellowships and prizes.

### MFT clinical research study portfolio 2023/2024

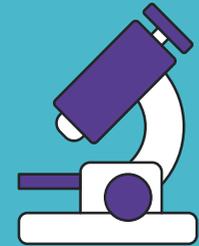
# 19,614



participants recruited to research studies

# 1,119

clinical studies were active during the whole or some of this period, with



# 253

 new studies started in 2023/24


# 491

Principal Investigators led research across MFT

# 1,394

colleagues were trained in Good Clinical Practice (required training which equips staff to conduct trials safely and correctly)



## INTRODUCTION FROM PROFESSOR RICK BODY AND PROFESSOR IAIN MCLEAN



In the last 12 months we have seen the enormous impact that the hard work and dedication of our staff and research participants has had. This includes the culmination of 10 years of research resulting in lifesaving treatment for children, and new studies in the early detection of liver and breast cancer.

We have a fantastic track record of research delivery and aim to give as many people as possible the opportunity to influence, design, and take part in clinical studies and evaluations. Our research participants are regularly the first-in-the-UK, and often the first-in-the-world, to trial new treatments, products, and procedures.

We have continued to excel at both a local and national level, as first for both overall and commercial study recruitment in Greater Manchester, as the eighth highest recruiter for all NHS acute trusts nationally, and the second highest recruiter to commercial studies for all acute trusts nationally.

This ensures that our drive to make MFT the best place to work in research and innovation is not just a platitude, but something tangible based on results, feedback and the positive impact we are making every day. To continue in our journey towards this goal, we must inspire and invest in our diverse, ambitious and talented R&I community.

From the rarest of conditions, to those that can affect all of us and our loved ones every day, our vision is to drive positive change in health and care for all. Thank you to our more than 600 dedicated R&I staff, everyone across MFT, and our local and national partners, for your outstanding commitment in supporting us to achieve this.



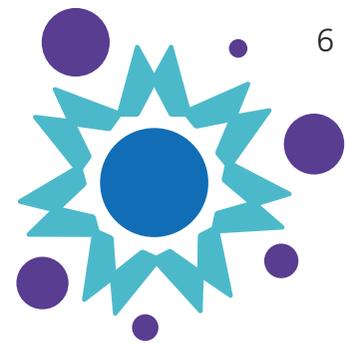
**Professor Rick Body**  
Group Director  
of Research and  
Innovation



**Professor Iain McLean**  
Managing Director  
for Research and  
Innovation



# AT THE CUTTING-EDGE OF RESEARCH AND INNOVATION



## Research and innovation to drive positive change in health and care for all.

MFT continues to be at the cutting-edge of healthcare research, innovation, and life sciences in the UK. Through clinical, commercial, and academic expertise and funding, we have developed an innovative infrastructure of partners to nurture clinical and commercial success and provide new insights, innovations, products, and services to our patients, research participants, and communities.

Throughout 2023-2024, the skills, expertise, and experience of our staff, coupled with our world-class facilities and hosted Research and Innovation (R&I) infrastructure across Greater Manchester (GM), have contributed to major global developments in the understanding and treatment of a wide range of clinical diseases, whilst supporting local and national priorities for life sciences, ensuring patients from around the world are benefitting from MFT's world-leading expertise.

Through external investment into our clinical trials, innovation projects, and R&I infrastructure we have been able to stimulate major economic growth and prosperity for our region, and play a significant role nationally and internationally in shaping the strategic future of R&I.

R&I is conducted across MFT hospitals and local care organisations, covering general care and hospital specialisms, including; emergency care, respiratory disease, cancer, cardiology care, musculoskeletal disorders, genomics, women's health and pregnancy, children's health, eye, and dental health.

This work is supported by more than 600 staff, including our integrated Research Office, Clinical and Non-Clinical Research Delivery Teams, and Innovation Team, along with our colleagues from MFT-hosted organisations – one of the largest and diverse National Institute for Health and Care Research (NIHR) portfolios in the country – comprised of:

- NIHR Applied Research Collaboration Greater Manchester (ARC-GM)
- NIHR Manchester Biomedical Research Centre (Manchester BRC)
- NIHR Manchester Clinical Research Facility (Manchester CRF)
- NIHR Clinical Research Network Greater Manchester (CRN GM)
- NIHR HealthTech Research Centre in Emergency and Acute Care (HRC)

We also host Health Innovation Manchester (HInM), Greater Manchester's academic health science and innovation system, which includes the Manchester Academic Health Science Centre (MAHSC). ARC-GM is hosted within HInM.

More details on our hosted NIHR infrastructure can be found from page 18 in our Summary reports from NIHR and other MFT-hosted infrastructure section.

Working with our hosted infrastructure and partners across Greater Manchester, including The University of Manchester (UoM) and the Greater Manchester Integrated Care Partnership, we are proud to be part of, and continue to strengthen and grow, the 'One Manchester' vision.





# A SUSTAINABLE FUTURE FOR R&I

Sustainability is a core foundation of R&I and crucial to all aspects of our future.

The R&I Sustainability Team has committed to delivering low and high impact actions against the nine key sustainability objectives identified in the MFT Green Plan and the Green NHS framework.

All Green Impact projects, Carbon Literacy for Healthcare pledges, and other workstreams that embed those objectives and are led by R&I Sustainability Advocates to achieve maximum impact and ensure coordinated delivery. Since our R&I Sustainability Team was brought together in 2022, and with the valuable support and active engagement of our R&I colleagues, we have successfully managed to save over 290 tons of CO2 equivalent

Our R&I Consumables project has been tremendously successful, saving 45,000 unused and unwanted items from clinical trials kits. These have either been redistributed amongst R&I and other MFT departments or donated to clinical education teams and the Hilditch group for further redistribution outside the UK.

We have achieved more than £33,000 in savings by reclaiming, reusing, and redistributing office furniture and other office supplies, increasing our carbon handprint – the positive impact we make to reducing our waste, minimising our reliance on supply chain and transport of goods, and raising awareness through networking and staff education and training.

This supports R&I's commitment to promoting our sustainability objective and the MFT Green Plan, as well as enhancing MFT's green credentials, and will continue as a new Green Impact Project from April 2024.

We place great emphasis on staff education and training, and in 2023/24 delivered four Carbon Literacy for Healthcare (CLP) training sessions and received more than 60 individual and team pledges and commitments from R&I colleagues to drive new ideas and projects forward. We have brought CLP training inhouse and it is now available on the MFT e-Learning Hub.



## A SUSTAINABLE FUTURE FOR R&I

Research and Innovation Sustainability Achievements – November 2022 to September 2024

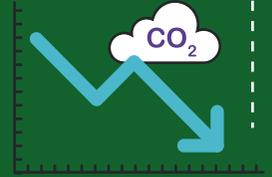


Over **£36,000**  
in savings across transport,  
education, waste reduction  
& supply chain

**£99,000**  
grant funding won



Overall  
**300 tons**  
of carbon saved



**74 staff**

Carbon Literacy trained



Green sustainability framework  
for NHS elective surgical hubs



Promoting sustainable office and  
clinical environments by reusing existing  
furniture and office supplies and  
redistributing consumables



Over **120**  
individual and team  
pledges recorded

**8** Sustainability  
Objectives  
Identified



- Digital Transformation
- Supply Chain & Procurement
- Estates & Facilities
- Travel & Transport
- Green Spaces & Biodiversity
- Workforce System & Leadership
- Innovation Driven Practices
- Laboratory Practices

**47,000** consumables  
saved from waste



Redistributed unused and  
expired clinical trials kits  
saved approximately over  
**30 tons of CO<sub>2</sub>e**

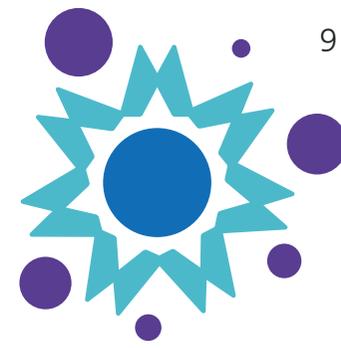
**3**



**Highly Commended**  
Green Impact projects

# CLINICAL RESEARCH DELIVERY

Delivering cutting-edge research across our hospitals and services.



## North Manchester General Hospital (NMGH)

Colleagues from the recently opened NIHR Manchester CRF at NMGH recruited and randomised their first patients to a phase 2 clinical trial evaluating the efficacy and safety of a drug in the treatment of moderate to severe chronic obstructive pulmonary disease (COPD).

The NIHR Manchester CRF at NMGH is part of a new long-term commitment to support experimental medicine research at the hospital as a result of the continued CRF funding which has enabled it to provide more opportunities for people of all ages and backgrounds across Greater Manchester to take part in research.

Left to right – Roberta Asante: Clinical Research Practitioner, Sujata Blane: Research Nurse Manager, Zoe Borrill: Respiratory Consultant, Andrew Deacon: Respiratory Consultant



## CLINICAL RESEARCH DELIVERY

Barbara (centre) with members of the MAGIC study team at Manchester Royal Eye Hospital



### Manchester Royal Eye Hospital (MREH)

Barbara Johnson, from Stockport, was the first person in the world enrolled onto a research study delivered at Manchester Royal Eye Hospital that could help some of the millions of people worldwide living with glaucoma – a leading cause of irreversible blindness.

According to the Royal College of Ophthalmologists more than 700,000 people in the UK have glaucoma, which is caused by high pressure inside the eye.

The 'Multicenter Glaucoma Study Investigating Standalone Canaloplasty' (MAGIC) study is evaluating a surgical treatment called canaloplasty which aims to expand the eye's natural drainage channels to improve the flow of fluid from inside the eye and lower the eye pressure. Canaloplasty treatment may be able to reduce or stop eye drops, result in better eye pressure, require fewer hospital follow ups, and reduce the likelihood of sight loss.

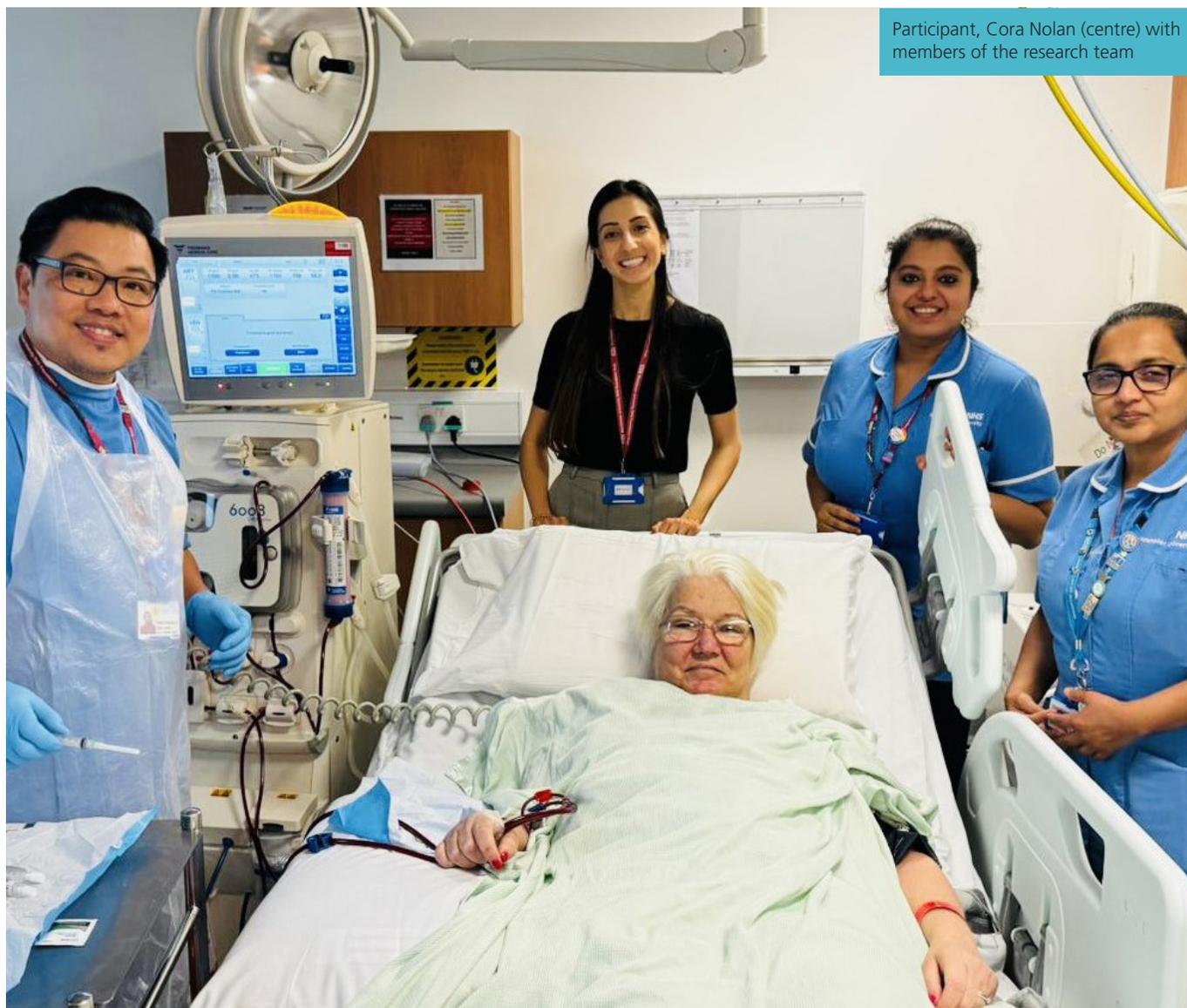


## CLINICAL RESEARCH DELIVERY

### Manchester Royal Infirmary (MRI)

NIHR Manchester CRF at MRI recruited the first patient to a new device study which aims to improve dialysis treatment by preventing side effects for kidney disease patients. The only UK site to deliver the Phase 1 trial, the investigation will assess the effectiveness of 'H-Guard' – a new priming solution which could be used during the set-up of the dialysis machines for patients routinely undergoing dialysis.

Kidneys usually filter and remove waste products from the blood. Haemodialysis, the most common type of dialysis, replaces some kidney functions for people with kidney failure, by using a machine to filter and clean blood. During dialysis, blood passes along a tube and into an external machine that filters it before it is passed back into the arm along another tube.



Participant, Cora Nolan (centre) with members of the research team



## CLINICAL RESEARCH DELIVERY

Professor Rob Wynn with Sarah,  
November 2022



### Royal Manchester Children's Hospital (RMCH)

Pioneering research at RMCH has shown dramatic results for treating children with high-risk leukaemia (a type of blood cancer), who previously had no hope of recovery after all other treatment options had failed.

The success of the innovative treatment is down to the help of newborn babies, as the cord blood cells taken from the placenta (afterbirth), along with a series of white blood cell transfusions, provides the most effective treatment ever trialled.

Sarah was just four years old when she was first diagnosed with acute myeloid leukaemia (AML), a rare type of childhood leukaemia which is diagnosed in approximately 100 children and young adults in the UK each year.

After all other treatments failed, including chemotherapy and a bone marrow transplant, Sarah from Cornwall travelled to RMCH to receive the innovative treatment through the GRANS clinical trial. Now over one year in remission, the team at RMCH and her family are hopeful that this novel treatment will have cured the leukaemia.

Sarah was one of ten children in the two-year study, to receive a cord blood stem cell transplant alongside a series of white blood cell transfusions (known as granulocytes) with the aim of boosting the cancer fighting abilities of the new cord blood.



## CLINICAL RESEARCH DELIVERY

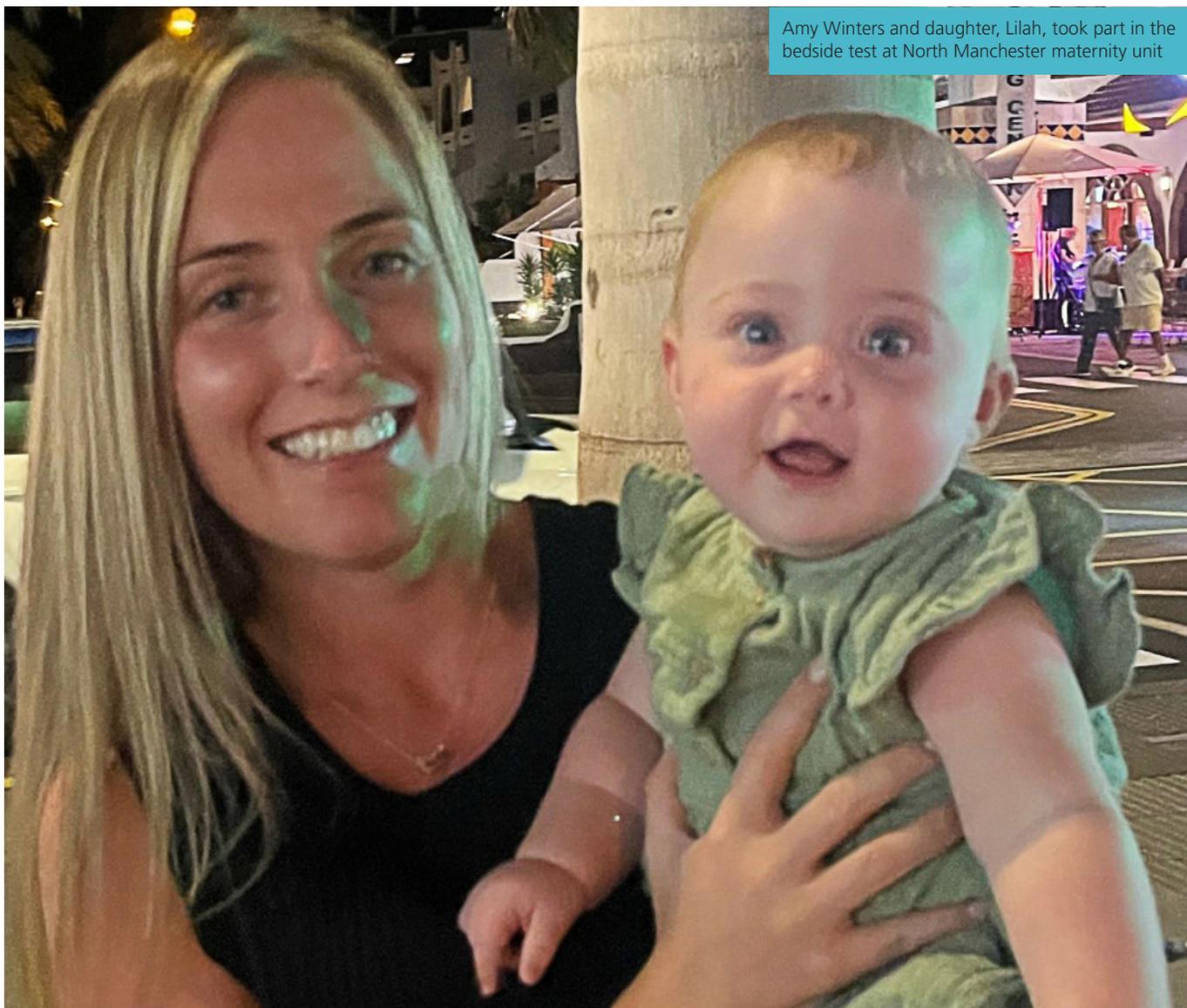
### Saint Mary's Managed Clinical Service

More than 1,100 pregnant women at Saint Mary's Managed Clinical Service at NMGH took part in a [rapid bedside test to protect newborns from life-threatening illnesses which can be passed onto babies during birth.](#)

Group B Streptococcus (GBS), a type of bacteria, is the most common cause of life-threatening infection in newborn babies in the UK. Approximately one in four pregnant women in the UK carry GBS, often without realising it, and there is a 50 per cent chance that the baby will be exposed to GBS during birth.

The current UK strategy for testing for GBS is 'risk factor-based screening' which offers antibiotics to women during labour. 65 per cent of UK newborn babies who develop early onset GBS infection have mothers who had no risk factor.

The GBS3 study, funded by the NIHR, is the first trial of its kind in the world and the results will help to determine whether routine testing should be introduced in the UK.



Amy Winters and daughter, Lilah, took part in the bedside test at North Manchester maternity unit



## CLINICAL RESEARCH DELIVERY

First BCAN-RAY study participant, Catherine with Girls Aloud bandmate, Kimberley Walsh



### Wythenshawe, Trafford, Withington and Altrincham Hospitals (WTWA)

A pioneering cancer research project launched in memory of Girls Aloud singer Sarah Harding, recruited its first participants at The Nightingale Centre at Wythenshawe Hospital.

The BCAN-RAY (Breast Cancer Risk Assessment in Young Women) has been set up following Sarah's dying wish to find new ways to spot the signs of the disease earlier and stop it cutting lives like hers short.

BCAN-RAY is one of the first research studies in the world to identify new ways to predict the risk of younger women getting breast cancer. Researchers hope their findings will enable all women to have a risk assessment for breast cancer when they reach the age of 30. Those women identified at increased risk will have access to early screening and opportunities for prevention, to reduce the chances of them developing and potentially dying from the disease.



## A HIVE OF RESEARCH AND INNOVATION

Work continues with Hive, MFT's Electronic Patient Record system, to ensure we identify patients who would be eligible for our open research studies.

In critical care, we have piloted an automatic notification to the research team when patients become eligible for a particular trial. This was necessary because entry to the trial is time sensitive, so quick notice improves the chances of recruitment in the timeframe rather than the patient missing the research opportunity. Dissemination of the pilot to our research teams has helped other teams identify specific trials where use of automatic notifications might benefit recruitment strategies. R&I colleagues have also developed reporting tools which can be adapted to meet eligibility criteria for their specific trials. Training in its use has been rolled out to staff, to ensure more eligible patients are identified and contacted by the research team.

Research participants are also making the most of the patient portal, MyMFT, with a high percentage of them signed up to receive their study documentation and results. R&I colleagues are currently working on the framework required to approach potential participants through MyMFT for appropriate research studies.



## THERE IS NO R&I WITHOUT EDI

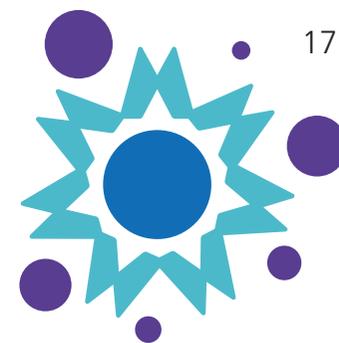
Equality, Diversity, and Inclusion (EDI) are essential to ensuring that R&I provides the answers for all our patients and communities.

For MFT to be the best place to work in research and innovation, it is essential that we build a team with a variety of backgrounds, skills, and perspectives, where everyone is welcome.

The more inclusive we are, the better our work will be. We are committed to delivering services and supporting a workforce which exemplifies best practice regarding Equality, Diversity, Human Rights (EDHR) and Inclusion, and to recognising and challenging all forms of prejudice, including being an organisation which opposes racism.

The R&I EDHR Group links in with MFT EDI initiatives and provides regular updates to R&I and research active staff, along with holding regular workshops and events.





## A WORLD-CLASS ENVIRONMENT FOR HEALTHCARE INNOVATION

As we continue to build a world-class environment for healthcare innovation at MFT in our mission to be the NHS Trust partner of choice for industry collaboration, we are ensuring the key R&I principles of sustainability and reducing health inequalities are driving our activity.

As we continue to build a world-class environment for healthcare innovation at MFT in our mission to be the NHS Trust partner of choice for industry collaboration, we are ensuring the key R&I principles of sustainability and reducing health inequalities are driving our activity.

We have developed a joint working partnership with the Association of British HealthTech Industries (ABHI) to drive forward our collaborative working relationship as part of our strategy to optimise our offer for industry partners.

We have also created a collaborative “Innovation Exchange” with partners at Oxford University Hospitals and Chelsea and Westminster Hospital NHS Foundation Trust. Membership has now grown to include other NHS Trusts and is being used to co-design objectives and as a vehicle for engaging with policy makers.

We received a further five years of funding from Manchester City Council to support the Greater Manchester Enterprise Zone, which comprises two sites at Manchester Science Park and Citylabs campus. We also visited Montreal at the invitation of the Quebec Government Office in London to build closer links between Manchester and Quebec, with MFT’s innovation offer, including access to Europe’s largest clinical academic campus, at the heart of the discussions.

We have capitalised on the success of our Clinical Data Science Unit (CDSU) by expanding the team, deepening our relationship with Health Data Research UK, and embedding patient and public transparency through the new established Data Trust Committee. Following ethical approval by the Health Research Authority (HRA), we have created a streamlined overarching research database meaning that data-driven projects can move swiftly to initiation, whilst still maintaining robust governance.

Since the Health Foundation award in 2021, the Innovation Hub has made substantial progress in its mission to build culture, capability, and engagement around innovation adoption in MFT– aligning individual elements of our innovation infrastructure to provide enhanced value through their combined strength. This has included creating a framework for consistent innovation implementation across the Trust.

As we grow into next year the links with the Innovation Hub will strengthen the MFT-hosted NIHR HRC in Emergency and Acute Care’s ability to support adoption and implementation of new technologies.





## PUBLIC AND PATIENT INVOLVEMENT AND ENGAGEMENT (PPIE) – VOCAL

In May 2023, Vocal launched their five year strategy accompanied by their evaluation strategy, supporting their work, including major collaborations with the NIHR Manchester BRC and NIHR Manchester CRF, which has brought positive change to a wide range of research studies.

### Driving Excellence



Vocal's training offer reached nearly 200 colleagues, with feedback showing an increase in confidence to carry out PPIE, and researchers seeing the value of PPIE. Data showed that public partners feel informed about research, more confident of their skills and positive about being recruited to research studies as a result of their activities with Vocal.

### Everyone Matters



Vocal published their approach to understanding which people get involved in health research, indicating that we work with people from different ethnicities, religions, ages and working status.

The evaluation data demonstrates that public and patient partners working with us feel valued, important and included.

The Black Asian and Minority Ethnic Research Advisory Group (BRAG), facilitated by Vocal, won Community Initiative of the Year at the National Black, Asian and Minority Ethnic Health and Care Awards and continue to influence race equity in health research, across Greater Manchester (GM) and nationally.

### Working Together



Vocal has worked closely with partners, including the James Lind Alliance, to facilitate Gorton Health Matters, a first of its kind community-led priority setting partnership which decided the Top Ten research priorities for local people. These priorities are now being used to engage local authorities, health and social care providers, and university and NHS based researchers.

They also co-lead the GM Research Engagement Network, with NIHR ARC-GM and the Caribbean and African Health Network.

### Innovating



Working with a team of lived experience partners, Vocal developed a novel way of working to assess and decide on grant applications addressing antimicrobial resistance.

They also co-created a dynamic training resource for healthcare professionals; 'Liver Talks' with people at increased risk of liver disease, the British Liver Trust and clinicians to help improve essential conversations about liver health.

Their Young Person's Advisory Group, Voice Up, and youth group Mahdlo co-designed recruitment materials and for the NIHR BioResource. These resources are now being used in GM schools and through parent engagement.



## BRINGING RESEARCH CLOSER TO OUR COMMUNITIES

We are determined to give as many people as possible the opportunity to take part in our world-leading research. One of the best ways to achieve this is to take clinical studies into our communities.

From the purpose-built GM Research Van to lung health checks taking place in supermarket and football ground car parks across the region, we have pioneered an approach of bringing our services to where our communities are.

The Genes and Health Study is trying to understand why people of Bangladeshi and Pakistani heritage have some of the highest rates of heart disease, diabetes and poor health in the UK.

It is one of the world's largest community-based genetics studies and will analyse the genes and health of 100,000 people in East London, Bradford and Greater Manchester.

In June 2023 Nazir Afzal OBE, Chancellor of The University of Manchester, became the 1,000th person in Greater Manchester to take part in the study. Nazir, whose parents moved to England from Pakistan, has encouraged others to get involved after he took part in the study.

Participation is simple and involves providing a small saliva sample and filling in a form with some basic information about your health.

Working in collaboration with the NIHR Clinical Research Network Greater Manchester, the multilingual NIHR and MFT team visited lots of local community locations, including mosques, festivals and shopping centres, to provide participation opportunities and make the study as accessible as possible.

*Nazir said:*

*"It's a real honour to be the thousandth person to give my saliva in order for the material to be used to try and identify whether or not there are genetic reasons for my health and ultimately, for the health of others from our communities. We, as a culture, devote our lives to service to others. And this is what it's about."*

*"This is not about me. This is about hoping that the material that they collect and my health records, will help the next generation and future generations not have to suffer as we've done."*



University of Manchester Chancellor, Nazir Afzal OBE became the 1,000th person in Greater Manchester to take part in the Genes and Health study



## R&I IN THE MEDIA

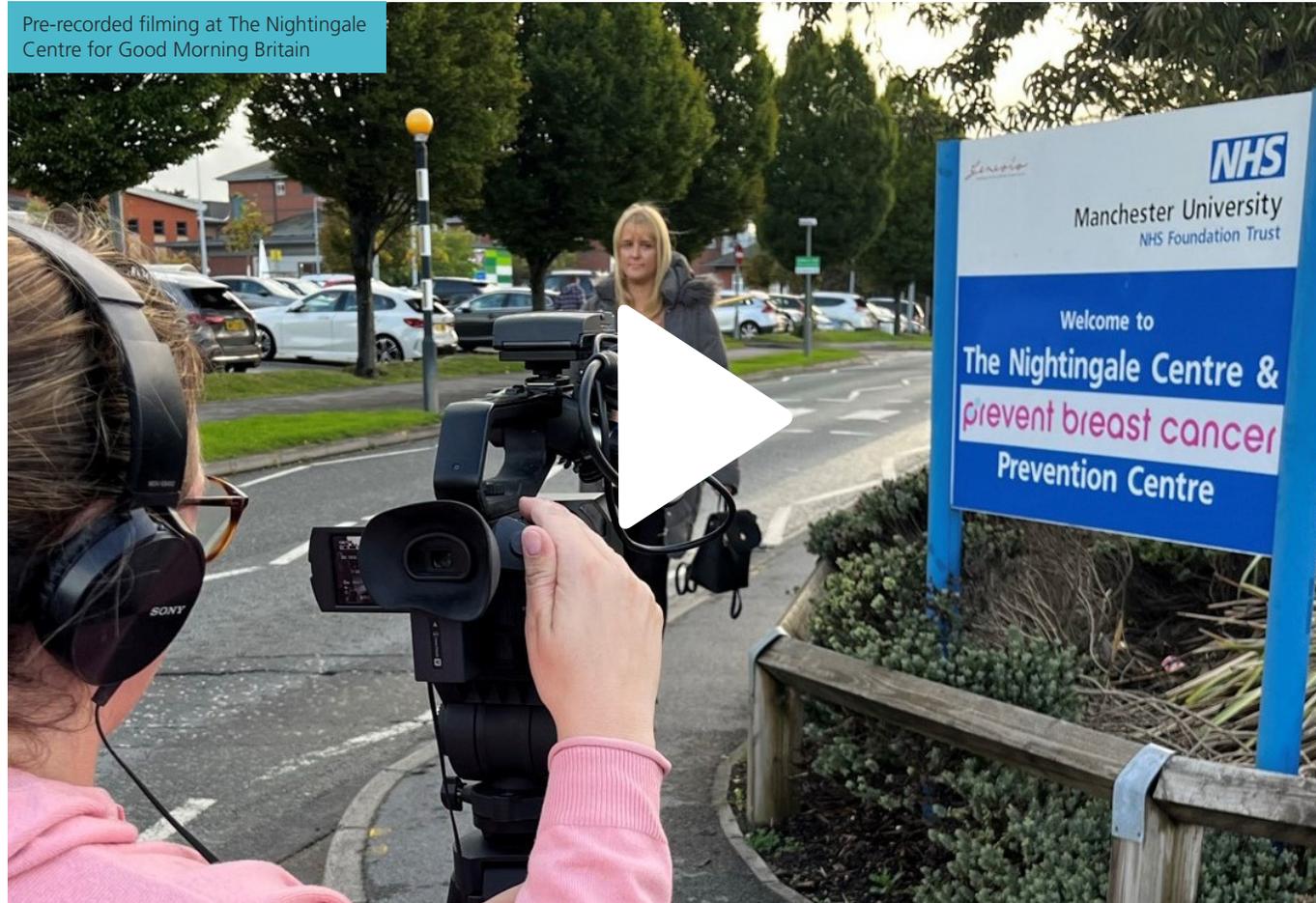
Through our R&I communications activity we inspire participation, collaboration, investment, and pride in MFT's cutting-edge research and innovation.

We humanise research and innovation through emotive, person-centred storytelling that showcases and celebrates MFT's national and international reputation for life-changing and life-saving research and innovation.

The team provides the communications function for all R&I activity across MFT and for the NIHR Manchester BRC, NIHR Manchester CRF and NIHR HRC in Emergency and Acute Care.

MFT R&I stories regularly feature in local, regional, national, and international media; shining a spotlight on the people who deliver and take part in our research and celebrating the successes of our R&I colleagues, teams and participants.

Find the latest Research and Innovation news [here](#).



Pre-recorded filming at The Nightingale Centre for Good Morning Britain



## R&I IN THE MEDIA



**SARAH'S LEGACY** NEW BREAST CANCER RESEARCH HOPE

Good  
Morning  
Britain



**SARAH'S LEGACY** NEW BREAST CANCER RESEARCH HOPE

...N UP TO THE AGE OF 18 UNDER PLANS BEING DRAWN UP BY THE PRIME MINISTER ■ AN 8-Y...

### National and Regional Media Coverage

News on BCAN-RAY study, running from The Nightingale Centre at Wythenshawe Hospital has featured in national and region broadcast, print and online media throughout 2023.

In June 2023, study lead Dr Sacha Howell featured live on [ITV Granada Reports](#) alongside the first participant, Catherine Craven-Howe.

In August 2023, BBC Morning Live filmed at The Nightingale Centre, part of MFT, for a seven-minute film led by Girls Aloud bandmate Kimberley Walsh. You can watch this film on the [BBC website here](#).

In September 2023, the study was featured on Good Morning Britain and ITV Granada Reports. This included headline news mentions every hour, a [short news package](#) featuring an interview clip from Dr Sacha Howell and a study participant, and a [10-minute interview with Nicola Roberts \(Girls Aloud bandmate\) and Dr Hilary \(GP who regularly features on the show\)](#) to discuss the study. Further coverage includes: [ITV News](#), [Daily Mail](#), [Manchester Evening News](#), [The Independent](#), [The Mirror](#), [Evening Standard](#) and more.

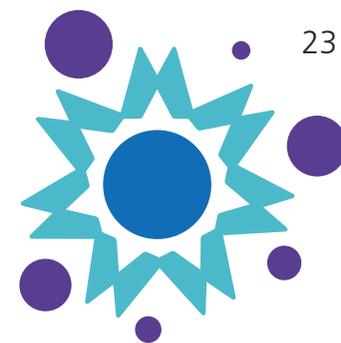
## R&I IN THE MEDIA

### National and Regional Media Coverage

The GRANS trial at RMCH, which is providing new hope for children with rare, high-risk leukaemia thanks to world-first research in Manchester, featured in national and regional media in June 2023.

Professor Rob Wynn discussed the study live on [BBC North West Tonight](#) and BBC Radio Manchester. It also featured on [BBC News Online](#), [Daily Express](#), [Manchester Evening News](#) and more.





## MFT CHARITY

We are now in our third year of a new approach to dedicated fundraising projects. Investment from the MFT Charity has enabled R&I to establish new research projects, structures and careers to benefit our staff, patients, and communities.

### Enhancing Ophthalmology Research at MFT

Charitable funds at MFT have provided state-of-the-art ophthalmic imaging equipment to enhance our research capabilities at Manchester Royal Eye Hospital (MREH).

This includes:

- Optos California: a wide-angle camera to see the back of the eye (capturing up to 200 degrees of the retina)
- Humphrey Visual field – to check a patients' visual field and detecting blind spots within the eye to aid assessments
- OCT Triton – technology to allow visualisation into the deepest layers of the eye
- Heidelberg upgrade – an upgrade of the existing piece of multimodal equipment

This equipment has been purchased to support the opening of the Manchester Eye Research Centre within MREH, which includes four dedicated rooms (two clinical and two diagnostic) to undertake ophthalmology research.



# MFT CHARITY

## Developing Future Researchers

R&I was able to offer six pump-priming fellowships thanks to a significant donation from the Houghton Dunn Charitable Trust, which has been a great support of MFT through its Charity. The 2023 fellowships ringfenced funding for research into rare conditions, conditions affecting children and young people and for the first time, research conducted by nurses, midwives or allied health professionals (NMAHPs).

These six-month awards provided a fantastic opportunity for early career researchers to develop their skills, knowledge and passion for their research area, with the support of our expert and experienced supervisors across MFT. It provides a vital stepping-stone for developing highly motivated future leaders of clinical research and innovation in Manchester and beyond.



*Professor Rick Body, Group Director of Research and Innovation at MFT said: "The Houghton Dunn Fellowships offer outstanding opportunities*

*for our most promising individuals, setting them up for fulfilling careers in which their research will continually improve our services and the lives of our patients. It's fantastic to see how the fellows have embraced this opportunity."*



Dr Tom Wright, Clinical Genetics Specialty Registrar at Saint Mary's Hospital is one of the 2023 Houghton Dunn Fellows, mentored by Dr Shruti Garg, Consultant in Child and Adolescent Psychiatry at Royal Manchester Children's Hospital.

*Dr Wright said: "I am very grateful to have been part of the Houghton Dunn Fellowship scheme. The training, education and work undertaken provided me with the experience that was key to my success in securing a NIHR Manchester Biomedical Research Centre Clinical PhD Fellowship that started in October 2023."*



**Manchester Foundation Trust Charity**





## CASE STUDY

Manchester research leads to NHS roll out of life-saving treatment for babies with rare disease.

Babies and toddlers with a rare and fatal genetic condition can now receive life-saving treatment on the NHS for the first time thanks to world-first clinical research studies carried out at the NIHR Manchester Clinical Research Facility (CRF) at RMCH in collaboration with the Manchester Centre for Genomic Medicine at Saint Mary's Hospital.

Lysosomal acid lipase deficiency, also known as Wolman disease, is a rapidly progressing and life-threatening rare genetic condition that causes multi-organ damage and a build-up of fat in cells in the liver, heart, blood vessels, and digestive system. Without treatment, infants with Wolman disease normally do not live to see their first birthday.

An enzyme replacement therapy, sebelipase alfa (Kanuma®), is the first treatment available on the NHS for Wolman disease. This follows more than a decade of trailblazing research and innovation at RMCH, with a multi-disciplinary team providing the best treatment, care and clinical studies for babies born with the condition.

The NIHR Manchester CRF at RMCH delivered world-first clinical trials for the treatment, which began in May 2011. The facility undertook phase 1 and phase 2 studies which involved several different specialist teams working collaboratively, over a number of years.

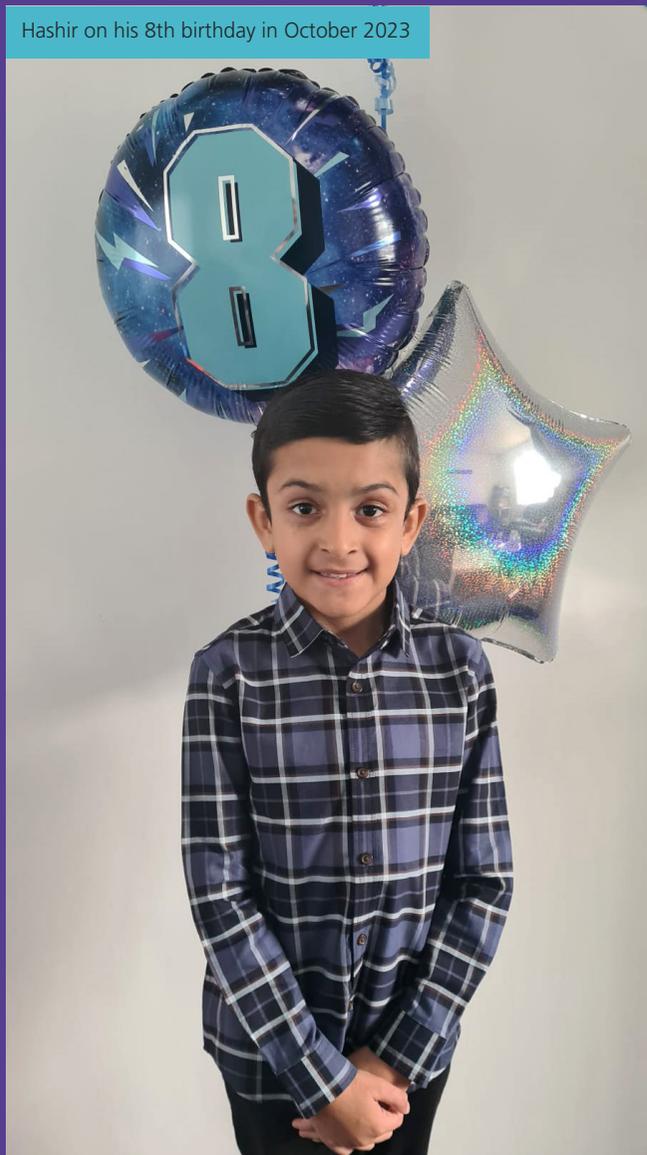
To date, the team in Manchester have delivered life-saving treatment to the most children globally.



Professor Simon Jones, Consultant in Paediatric Inherited Metabolic Disease and Liz Worsley, Nurse Manager at the NIHR Manchester CRF at RMCH

## CASE STUDY

Hashir on his 8th birthday in October 2023



This includes Hashir Nawaz, eight-years-old, from Sheffield, South Yorkshire, who was diagnosed with Wolman disease aged three months. Hashir started treatment with sebelipase alfa in January 2016, first as part of a clinical trial at the NIHR Manchester CRF at RMCH, and then via a compassionate access scheme (access to the medicine outside of a clinical trial). Hashir receives the treatment once every two weeks.

Professor Simon Jones, Consultant in Paediatric Inherited Metabolic Disease at the Manchester Centre for Genomic Medicine at Saint Mary's Hospital and Clinical Director of NIHR Manchester CRF at RMCH led the delivery of the research and treatment at MFT, working closely as a multi-disciplinary team across RMCH and SMH.

*He said: "I am thrilled to see that this lifesaving drug will now be available on the NHS as a specialist service for the benefit of more children and families with this rare genetic condition. More than a decade on since our world-first clinical trials, I am incredibly proud of what our research and clinical teams here in Manchester have delivered collaboratively, which has contributed to this successful outcome."*

This story really demonstrates how early phase research is turned into a treatment reality for our patients at MFT and beyond, which will save the lives of many children in years to come and provide hope for many families. News of this announcement featuring Professor Simon Jones and MFT patients has featured in a number of national and regional media outlets, including; [The Independent](#), [The Telegraph](#), [The Express](#), [ITV News](#) and the [Manchester Evening News](#).



RMCH colleagues with Hashir and his younger brother

## HOSTED INFRASTRUCTURE

The National Institute for Health and Care Research (NIHR) is funded by the Department of Health and Social Care and focuses on early translational research, clinical research and applied health and social care research.

Since that time, it has transformed research in and for the NHS and helped to shape the health and social care research landscape more broadly. It funds, enables and delivers world-leading health and social care research that improves people's health and wellbeing and promotes economic growth.

MFT's varied hosted infrastructure enables closer working with partner NHS trusts and academic institutions, providing greater opportunities to involve more people from across Greater Manchester (GM), and beyond, in research and innovation. It allows closer working with wider areas of the GM and the North West infrastructure to ensure we are tackling the grand research and innovation challenges for our local communities and national priorities, and positions GM as an international powerhouse for research and innovation.

Hosted NIHR infrastructure and partner NHS and university organisations are brought together by the Manchester NIHR R&I Oversight Board, a level of cooperation unmatched in any other region of the nation. Project grant applications and infrastructure hosting tenders are all managed through open competitions ensuring funding is allocated on merit and performance.

Summary annual reports from the NIHR infrastructures hosted by MFT on behalf of GM follow.

### Growing our NIHR Infrastructure

In November 2023 it was announced a new NIHR Research Delivery Network (RDN) would support the successful delivery of health and social care research in England. Under the new changes, 12 NIHR Regional Research Delivery Networks (RRDNs) have been established across England from 1 October 2024.

MFT was selected as the host for the NIHR North West Regional Research Delivery Network (NW RRDN) bringing together the Greater Manchester and North West Coast Local Clinical Research Networks (CRNs) to form a single service covering the whole region. This presents an enormous opportunity as it will become the nation's biggest research network serving more than seven million people.

It was also announced in November 2023 that from 1 April 2024, MFT would host the NIHR HealthTech Research Centre (HRC) in Emergency and Acute Care. Led by Professor Tim Felton, Honorary Consultant in Intensive Care and Respiratory Medicine, the HRC will support the development of innovative technology solutions for better diagnosis, treatment, and care for people across our region, transforming urgent and emergency care.

Following a successful bid in the summer of 2023, the award of £3m from the NIHR builds on the success of our own MFT Diagnostics and Technology Accelerator (DiTA) and ensures that state-of-the-art technologies are assisting our clinicians to diagnose diseases earlier and ensure appropriate treatments are provided sooner to our patients from GM and beyond.



# HOSTED INFRASTRUCTURE

## NIHR Applied Research Collaboration Greater Manchester (ARC-GM)

### Highlights for 2023/2024

- 1** Working with the Greater Manchester Integrated Care Partnership (GM ICP) to address GM's research priorities

Our mature relationship with the GM ICP, developed through our evaluation of GM devolution, has continued to strengthen. We have regular meetings between senior teams of both organisations which strengthen our enduring and trusted relationship.

- 2** Supporting policy and decision making within the GM health and care system through Rapid Evidence Syntheses (RES)

We have extended our RES service from primarily supporting innovation adoption decisions within HInM, and the MFT Innovation Hub, to a wider focus on policy-level questions in public health and social care to support decision making by the GM ICP, the Office for Health Improvement and Disparities and the Department of Health and Social Care. We have also developed a RES website for RES requests from the health and care system, and to disseminate completed RES.

- 3** Addressing health inequalities for those with greatest need

We continue to work with the Northern ARCs and the Northern Health Science Alliance (NHSA) as part of Health Equity North, a virtual research institute focused on place-based solutions to health inequalities.

Our long-standing programme of work around regional health inequalities has stimulated The University of Manchester to invest approximately £2m to create the cross-university Healthier Futures research platform, led by Professor Dame Nicky Cullum. The platform aims to mobilise the University's academic assets and stimulate new, interdisciplinary research that addresses and reduces health inequalities.

- 4** Supporting academic career development in the GM Health and Care Workforce

Through our Research Internships and Pre-doctoral Fellowships we invest in people to support and develop research skills, and initiatives within the Greater Manchester health and care workforce. Our report on the impact of our academic career development programmes highlights the benefits of these programmes for those who take part.

- 5** NHS England Research Engagement Network (REN) Programme

In collaboration with other GM NIHR Infrastructure, NIHR ARC-GM led a further successful bid on behalf of NHS GM to the REN fund, with the aim of overcoming some of the barriers to creating sustainable networks for engagement with diverse communities.

### NIHR | Applied Research Collaboration Greater Manchester



Supported:

**21** Research Internships  
**8** Pre-doctoral Fellows  
**15** PhD Studentships

Obtained **£820k** co-funding from the GM health and care system



Leveraged **£6.3m** of additional research funding



**62** peer review publications

**90** active research projects



## HOSTED INFRASTRUCTURE

### NIHR Manchester Biomedical Research Centre (BRC)

#### NIHR | Manchester Biomedical Research Centre

The NIHR Manchester BRC is made up of:



**180** NIHR Investigators  
**225** NIHR Associates  
**38** PhD Trainees  
**86** Rising Stars

This year we had:

**588** BRC-linked research publications  
**21,970** participants recruited to projects

**111** research projects supported by the BRC

**405** new public partners who have worked with us through Vocal  
**£68.2m** in external income leveraged

The NIHR Manchester BRC continues to drive health improvements and lasting change for all through creative, inclusive and proactive research across Greater Manchester, Lancashire and South Cumbria.

#### Key Updates:

In February 2024, we announced the [appointment of Professor Anne Barton](#) as the new Director of Manchester BRC following the departure of Professor Ian Bruce, who had led the BRC since 2017. Prof Barton, Honorary Consultant Rheumatologist at MFT, took up this new role on 1 April 2024.

Our inaugural [International Scientific Advisory Board](#) meeting took place in February 2024 and commended our focus on addressing health inequalities faced by our wider population.

Our work to tackle health inequity continued as MFT-based researchers improved the accuracy of breast cancer genetic testing for people from Ashkenazi Jewish backgrounds.

Working across our expanded [NHS partnership](#), we enabled residents to access cutting-edge treatments and provided capacity building opportunities for more clinicians to become research active, having launched our new Clinical Research Investment Scheme and welcomed our latest cohort of PhD students.

Our ability to deliver innovations with real-world impacts across health and care systems progressed and we formed 201 strategic industry partnerships and collaborated with 109 small and medium enterprises (SMEs).

We leveraged more than £68m in external income, with BRC researchers playing a central role in national initiatives to improve care across a range of health conditions including:

- Announcement of the UK Rare Disease Research Platform with [Manchester BRC Rare Conditions researchers](#) leading 3 of the 11 specialist nodes and receiving around £4 million investment.
- £10 million funding to undertake early and experimental medicine research as part of the '[Mental Health Mission](#)' through our Mental Health Theme.

There were 111 Manchester BRC-supported research projects with 588 linked publications. Highlights also included receiving international recognition with a research team based at Saint Mary's Hospital [awarded the prestigious American Association for Cancer Research Team Science Award](#) for their pioneering work on Lynch-syndrome associated endometrial cancer.

We developed a joint BRC and CRF [EDI Strategy](#), focusing on our workforce and student population and appointed an EDI Lead, Dr Fozia Ahmed, Consultant Cardiologist at MFT, to lead this work.

Our research would not be possible without our public participants. Thank you to the 21,970 people recruited to projects this year and the 405 public partners who have worked with us, through [Vocal](#).

Find Manchester BRC's latest news [here](#).

## HOSTED INFRASTRUCTURE

### NIHR Manchester Clinical Research Facility (CRF)

As the largest and most comprehensive NIHR CRF in the UK, Manchester CRF (MCRF) has four facilities across MFT; MRI, NMGH, RMCH and Wythenshawe Hospital, as well as at The Christie and Salford Royal Hospital, delivering cutting edge research across a range of clinical areas.

#### Key Achievements:

As a result of studies carried out MCRF at RMCH in 2011, babies with the rare and fatal genetic condition Wolman disease, can now receive life-saving treatment on the NHS. The enzyme replacement therapy, sebelipase alfa, was the first treatment for Wolman disease available on the NHS (NICE approval, November 2023).

MCRF at The Christie was selected as lead UK site for an early phase trial of Elranatamab – a new immunotherapy for Multiple Myeloma, a type of blood cancer incurable in most patients (European Medicines Agency approval December 2023; currently under NICE review).

In addition, we:

- Enhanced local infrastructure at MCRF at Wythenshawe and Salford Royal to accommodate inpatient stays for more complex studies.
- Remained at the forefront of trials for Cystic Fibrosis (CF), with MCRF at Wythenshawe the lead site for a new CF inhaled genetic therapy.

- Delivered a new complex device study in renal dialysis which upskilled our nursing team through device and dialysis training at MCRF at MRI.
- MCRF at NMGH undertook their first Phase 2 trial for COPD.
- MCRF at Salford Royal opened their first gene therapy study for Gaucher's Disease, developing new governance and workforce structures to support this.

We received capital [funding from NIHR](#) for specialist equipment to bring the most advanced treatments and technologies to patients.

Professor Ben Parker, Co-Director of the MCRF and Prof Raja Padidela, Deputy Medical Director of the MCRF at RMCH were named [MAHSC Honorary Clinical Chairs](#) for 2023. We appointed deputy Medical Directors at 4 sites and expanded roles to support links with Industry.

We progressed our training strategy, supporting career development for our workforce. To drive delivery of our joint BRC and CRF [EDI Strategy](#), we appointed Consultant Cardiologist Dr Fozia Ahmed as EDI Lead, and two deputies.

Find Manchester CRF's latest news [here](#).

### NIHR | Manchester Clinical Research Facility



**869**

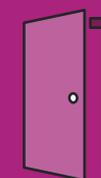
Portfolio project count (overall)

**429**

Portfolio early phase projects (overall)

**3,017**

Portfolio Participants Recruited (overall)



The number of open studies in the 23/24 financial year increased by

**170**



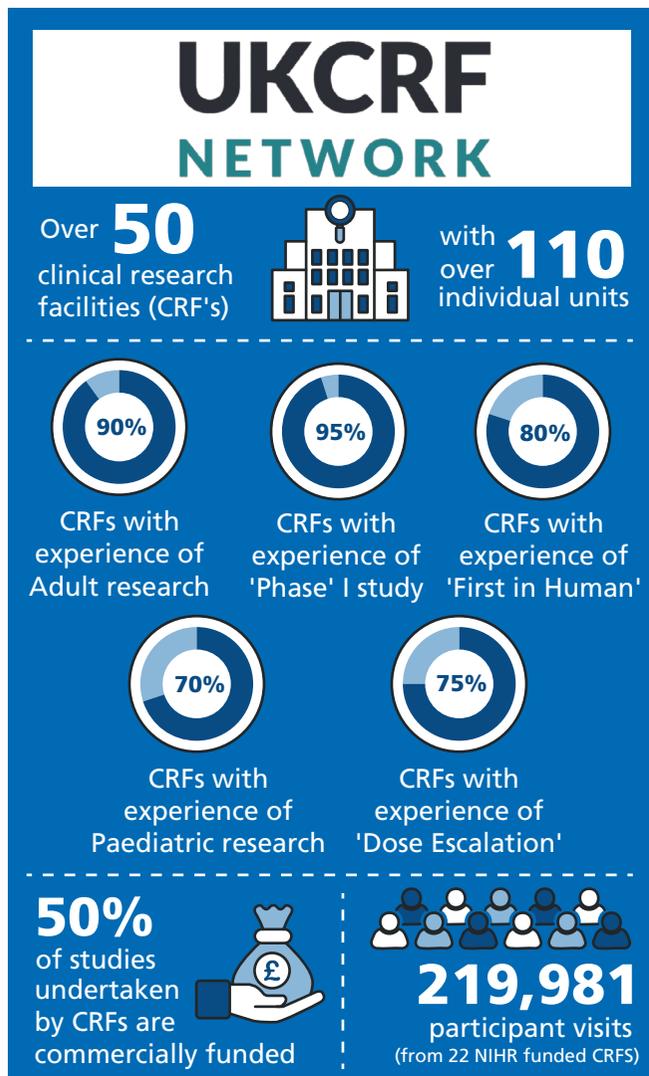
**652**  
Industry Linked Projects in CRF Portfolio (overall)



Percentage of Total Portfolio

# HOSTED INFRASTRUCTURE

## UK Clinical Research Facility Network (UKCRFN)



The period covered by this report was the first year in the Network's NIHR funding period from April 2023 to February 2029 and we are delighted to report that this year has been a highly successful one for the Network.

We have continued to build upon the solid platform of previous years, enabling us to continue successfully supporting CRFs across the UK and Ireland and drive forward initiatives that improve the patient experience efficiently and effectively. A strong, experienced, team of staff have been recruited during this first year, enabling the Network to be highly active in supporting the NIHR community.

We continue to provide unparalleled expertise in CRF Operations, supporting the NIHR and devolved nations to build a world-class Experimental Medicine (EM) ecosystem across the NHS to improve patient care and promote economic growth.

Our relationships with industry continues to grow and, in particular with AstraZeneca, have strengthened. A successful pilot was run with AstraZeneca to involve senior nurse involvement in study protocol design and development. This initiative could be beneficial to both Industry and Charity partners and the Network is keen to expand this offering. Similarly, we are looking to develop a Key Opinion Leader pilot, to identify Clinical Principal Investigators to work in the design and subsequent delivery of clinical trials.

Marketing materials, both online and physical have been developed and have proved important in the presentation of the Network to Industry and Charity

Partners. The reach of the UKCRFN is wide-ranging, with relationships developed with 54 CRFs across the UK and Ireland. We continue to reach out to new CRFs both NIHR and non-NIHR funded offering UKCRFN support.

Skills and Workforce Development remains an important part of the Networks efforts. We implemented a Workforce and Learning Needs survey to gather data on CRF staff numbers, the type of roles and the number of staff in those roles, the pay grades of staff and whether the staff were full-time or part-time. The survey also investigated the learning needs of those staff. Areas of workforce development were identified and the availability of educational sources for those needs were assessed. The data collected will inform trial capacity development.

The Network led the NIHR Nursing and Midwifery Office/ Royal College of Nursing Prince of Wales Cadet Research Pilot discussions to inform future work placements. This has resulted in research placements piloted across three CRFs (Glasgow, Birmingham, and Cardiff) with input into their national workbook/training materials. These are part of a blended programme to encourage young people from membership organisations to enter the NHS and nursing profession

The Network has made significant progress in Patient and Public Involvement and Engagement (PPIE), and is committed to embedding Equality, Diversity, and Inclusion (EDI) across the whole Network and its activities. This has been instrumental in starting to build research inclusion capacity and activity and strengthening the EDI culture across the whole of the Network.

## HOSTED INFRASTRUCTURE

### NIHR Clinical Research Network Greater Manchester (CRN GM)

2023-2024 marked a successful final year of Clinical Research Network (CRN) Greater Manchester following a decade of support for research delivery across Greater Manchester, East Cheshire and East Lancashire.

In our final year, CRN Greater Manchester supported the recruitment of 65,120 participants across 1,023 studies. The studies were carried out across all 31 health and care specialty areas and in a range of secondary care and out-of-hospital settings in social care and the community.

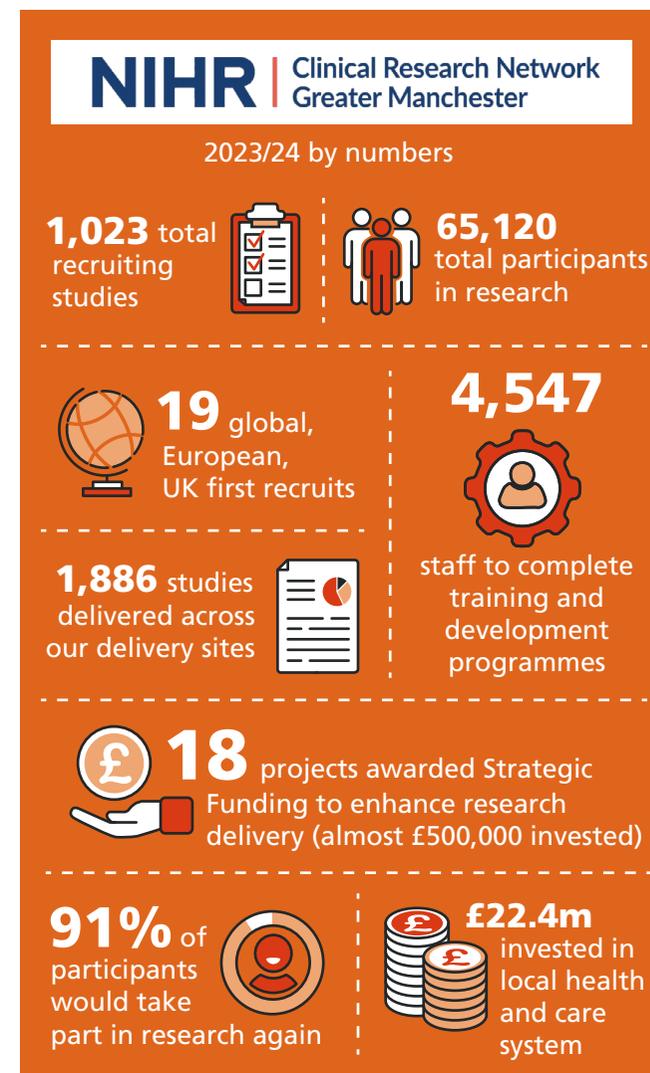
#### Highlights Included:

- Winning an award at the 2024 Northern Power Women Awards in recognition of making research more inclusive. The team took home the award for Inclusive Innovation which recognised nominations which were pursuing game-changing innovation that led to accelerating equality.
- A total of 12,664 participants took part in research in primary care in 2023-2024, which represented 20 per cent of the total recruitment in the region. This was the highest year for recruitment in primary care in CRN Greater Manchester since the organisation launched in 2014. A total of 184 practices recruited to studies, with 103 of these new to research.

- CRN Greater Manchester co-hosted the first ever Great North Research Conference for the Life Sciences and MedTech industries in November 2023. The two-day conference attracted over 450 delegates and 95 per cent rated their experience as good or excellent. The event marketed the north as a world-class destination for commercial research, emphasising the north's research strengths and disease burden and brought together partners from across the UK.

You can read more highlights in the [CRN Greater Manchester 2023/24 Strategic Impact Report](#).

In line with all 15 of NIHR's Local CRNs, in October 2024 CRN Greater Manchester transitioned to become the NIHR North West Regional Research Delivery Network (RRDN) through a merger with the CRN North West Coast.



# HOSTED INFRASTRUCTURE

## Health Innovation Manchester

Health Innovation Manchester (HInM) is dedicated to transforming healthcare in Greater Manchester (GM) by working with system partners to discover, develop, and deploy innovative solutions. Its mission is to address significant healthcare challenges and reduce inequalities by harnessing the collective power of health, care, industry, and academia.

HInM combines the functions of the Health Innovation Network (HIN), the NIHR / NHS England designated Academic Health Science Centre (AHSC), and NIHR ARC-GM.

### Digital Transformation

In 2023-2024, we spearheaded the GM Integrated Care System (ICS) Digital Transformation Strategy. This initiative coordinated investments and managed digital transformation projects across HInM, NHS GM, and local health and care providers. Key projects include the GM Care Record, the GM Secure Data Environment (SDE), and the Digital First Primary Care programme, all designed to enhance healthcare services through better use of technology and data. [Read more.](#)



### Innovation Development and Deployment

We played an essential role in advancing national health and care priorities through several initiatives, such as improving lipid management, addressing health inequalities in paediatric asthma and cardiovascular disease (CVD), promoting patient safety, and supporting polypharmacy management. The organisation also facilitates the adoption of MedTech products approved by the National Institute for Health and Care Excellence (NICE).

Our Patient Safety Collaborative (PSC) focuses on integrating proven healthcare innovations into local services. The PSC aims to enhance clinical practice and patient outcomes, with projects targeting areas like mental health, system safety, maternity and neonatal care, and medicine safety.

### Collaboration with Industry Partners

We actively engaged with industry partners ranging from small and medium-sized enterprises (SMEs) to global healthcare companies. By offering support and guidance, HInM accelerates the development and deployment of new products and services, especially those that solve pressing healthcare challenges in GM. A key initiative is the GM Health Innovation Accelerator, which seeks to improve the diagnosis and treatment of diseases for the city region's 2.8 million people, focusing on early diagnosis and personalised care.

### Research and Academic Partnerships

We collaborated closely with GM's universities and research institutions. These partnerships secured major funding for research and innovation, maximise GM's research and academic capacity and capability, and ensured a steady flow of new ideas and breakthroughs that fuel HInM's innovation pipeline.

### **Manchester Academic Health Science Centre (MAHSC)**

HInM is also supported by the Manchester Academic Health Science Centre (MAHSC), which connects research and teaching from GM's universities with the region's health and care system.

## OUR NEXT FIVE YEARS

Driving positive change in health and care for all. The future of research and innovation is a future that will improve the lives of our diverse service users, local communities and beyond.

Led by our new [2024-2029 Research and Innovation Strategy](#), we will meet needs of our service users, communities, staff, the NHS and our partners. The strategy is a living document, and the delivery plans we develop to set out our detailed programme of work, will adapt to meet those needs as they evolve and change.

Over the next five years we will continue to put our service users, communities and colleagues at the centre of everything we do. We will focus on our values and principles, including equality, diversity, and inclusion; environmental sustainability; and the importance of earning trust. We will always ask how we can be more efficient, more pragmatic, and more proportionate, while constantly maintaining high-quality delivery.

We will support all teams across MFT to take their research and innovation to the next level.

