

NIHR Manchester

Biomedical Research

Centre (BRC)



Information Booklet



2025/26

Contents

| | |
|-----------------------------------------------------------------------------------|----------|
| 1.0 Welcome | P. 4-5 |
| 2.0 What is the NIHR? | P. 6 |
| 3.0 What are NIHR BRCs? | P. 7 |
| 4.0 NIHR Manchester BRC | P. 8-13 |
| 4.1 Host & Partners | P. 9 |
| 4.2 BRC Governance | P. 9-10 |
| 4.3 BRC Clusters & Research Themes | P. 11-13 |
| 5.0 Children's Research and links to BRC | P. 14-15 |
| 6.0 Inclusive Research Infrastructure | P. 16-18 |
| 6.1 Inclusive Research Oversight Board (IROB) | P. 16 |
| 6.2 Equality, Diversity & Inclusion (EDI) | P. 16-17 |
| 6.3 Patient & Public Involvement, Engagement & Participation (PPIEP) | P. 18 |
| 7.0 Strategic Core Delivery | P. 19-30 |
| 7.1 Digital Infrastructure | P. 19-20 |
| 7.2 Innovation & Partnerships | P. 21 |
| 7.3 Capacity Building, Training & Opportunities | P. 22-28 |
| 7.3.1 NIHR Programme Overviews Awards & Fellowships | P. 29-30 |
| 8.0 BRC Core Funding Opportunities | P. 31-32 |
| 8.1 BRC Support | P. 32 |
| 8.2 BRC Core Team | P. 32 |
| 9.0 BRC Contractual Obligations | P. 33-38 |
| 9.1 Roles & Responsibilities | P. 33-36 |
| 9.2 SMART Objectives | P. 36 |
| 9.3 Budget Management | P. 37 |
| 9.4 Reporting Requirements | P. 38 |
| 9.5 Acknowledging the NIHR in BRC outputs | P. 38 |
| 10.0 NIHR BRC Communications and Brand Guidelines | P. 39-40 |
| 10.1 Impact | P. 41-42 |



| | |
|--------------------------------------------------------------------------------------------------------|----------|
| 11.0 NIHR initiatives linked to Manchester BRC | P. 43-47 |
| 11.1 NIHR BioResource | P. 43 |
| 11.2 NIHR Health Informatics Collaborative (NIHR HIC) | P. 44 |
| 11.3 NIHR Translational Research Collaborations | P. 44 |
| 11.4 NIHR Polygenic Risk Scores Initiative | P. 46-47 |
| 12.0 How the MBRC links in with the research landscape across GM | P. 48-61 |
| 12.1 GM NIHR Infrastructure | P. 49 |
| 12.2 NIHR Manchester Clinical Research Facility (MCRF) – Adult & Paediatric | P. 50-51 |
| 12.3 Manchester Academic Health Science Centre (MAHSC) | P. 52-53 |
| 12.4 Academic Health Science Network (AHSN) – Health Innovation Manchester (HInM) | P. 54-55 |
| 12.5 NIHR North West Regional Research Delivery Network (NW RRDN) | P.56 |
| 12.6 NIHR Applied Research Collaboration Greater Manchester (ARC-GM) | P.57 |
| 12.7 NIHR Greater Manchester Patient Safety Research Collaboration (PSRC) | P.58 |
| 12.8 NIHR Manchester Experimental Cancer Medicine Centre (ECMC) Network | P.59 |
| 12.9 Policy Research Units (PRU) (NIHR Schools) | P.59-60 |
| 12.10 NIHR Patient Recruitment Centre (Blackpool Teaching Hospitals NHS Foundation Trust) | P.61 |
| 12.11 NIHR HealthTech Research Centre (HRC) in Emergency and Acute Care | P.61-62 |
| 13.0 Northern BRCs | P.62 |
| Appendix 1 Glossary | P.63 |

1.0 Welcome

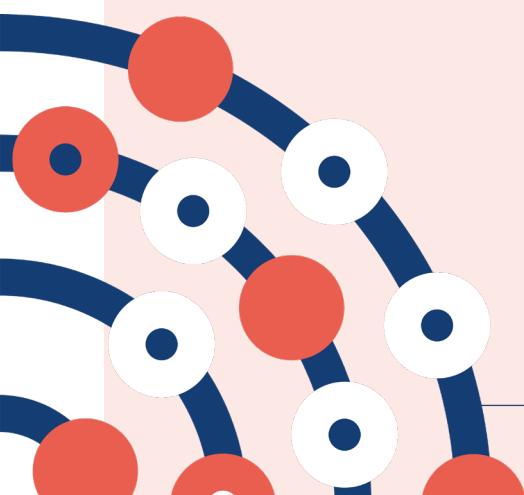
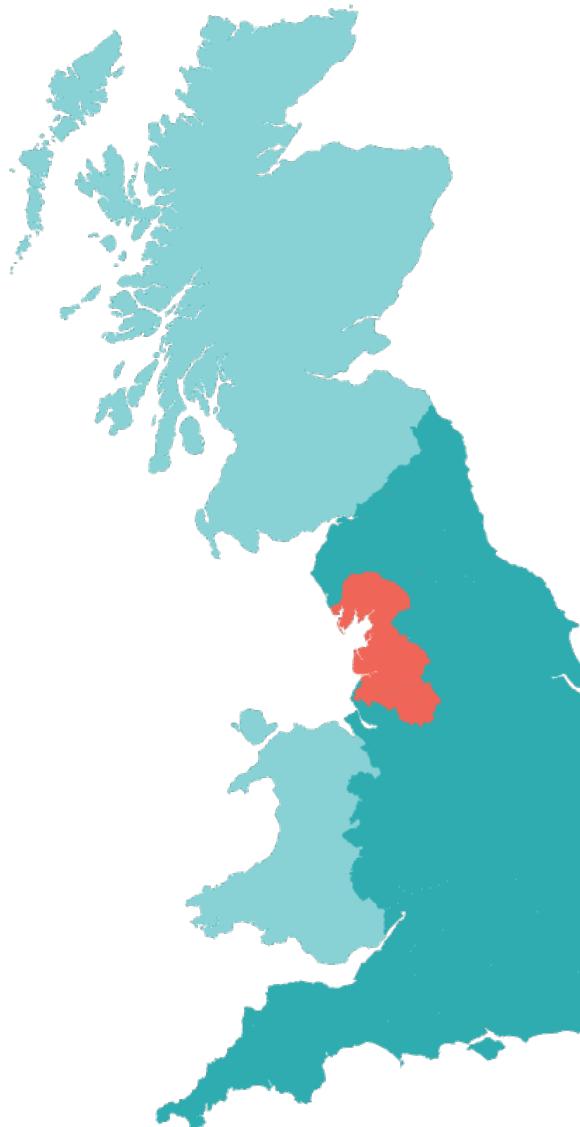


Welcome from Professor Anne Barton, Director of NIHR Manchester BRC

This booklet provides all NIHR Manchester BRC funded and affiliated workforce and students with high-level information on the Manchester BRC, providing key contacts and relevant links. It is intended to complement your local induction processes and documentation. We encourage you to access [our website](#) for further information and regular updates alongside your local points of contact.

NIHR Manchester BRC (2022-2028) has been awarded over £64 million - more than double our 2017-2022 award.

This funding is the largest single research award given by the National Institute for Health and Care Research (NIHR) to the city region; it will enable the Manchester BRC to improve people's lives and reduce health inequalities by translating scientific discoveries into new treatments, diagnostic tests, and medical technologies.



Manchester BRC, hosted by **Manchester University NHS Foundation Trust** works in partnership with **The University of Manchester (UoM)**, **The Christie NHS Foundation Trust**, **the Northern Care Alliance NHS Foundation Trust**, **Greater Manchester Mental Health NHS Foundation Trust**, **Lancashire Teaching Hospitals NHS Foundation Trust**, and **Blackpool Teaching Hospitals NHS Foundation Trust**.

This partnership allows us to increase our research capacity both in terms of new research themes but also by expanding our geographical reach from Greater Manchester into Lancashire and South Cumbria to improve health outcomes across our region's urban, rural and coastal communities.

Our work is only possible because of the patients, families and carers who offer the wisdom of their lived experience to help design our research and those who volunteer to take part. We are committed to ensuring our communities can access our research opportunities to ensure our work is driving positive change for all. Collaborating with scientific teams locally, nationally and internationally, healthcare staff, charities, industry, patients and communities, we plan to carefully and thoroughly appraise what difference our BRC makes to health, and to the lives of the people we serve. By working in this way, we will accelerate translation of our discoveries into healthcare and create a region with the collective power to effectively undertake and rapidly implement findings from research.

We are committed to attracting, recruiting and retaining a diverse and inclusive workforce where all roles and contributions are recognised. Our infrastructure provides high-quality training and support during your career with us.

On behalf of the NIHR Manchester BRC team I wish you a warm welcome to the team'. We very much value your contribution to supporting our vision to drive forward health improvements for all in order to create a clear and positive step change in our region's health and care.

**Professor Anne Barton
(BRC Director)**



Anne Barton

2.0 What is the NIHR?

The National Institute for Health and Care Research (NIHR) was established in 2006 to:

Create a health research system in which the NHS supports outstanding individuals, working in world-class facilities, conducting leading-edge research focused on the needs of patients and the public.

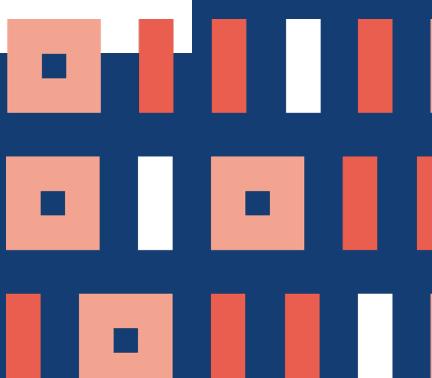
The NIHR is funded by the Department of Health and Social Care. Their work focuses on early translational research, clinical research and applied health and social care research.



Working in partnership with the NHS, universities, local government, other research funders, patients and the public, **the NIHR funds, enables and delivers world-leading health and social care research that improves people's health and wellbeing and promotes economic growth.**

Although centred on England, the NIHR collaborates closely with the devolved countries in Scotland, Wales and Northern Ireland. They are also a major funder of applied health research in low- and middle-income countries, work that is principally funded through UK aid from the UK government.

NIHR work is guided by operating principles of impact, excellence, inclusion, collaboration and effectiveness.



NIHR's mission: to improve the health and wealth of the nation through research.



Figure 1: NIHR seven Areas of Strategic Focus

3.0 What are NIHR BRCs?

NIHR Biomedical Research Centres (BRCs) are collaborations between world-leading universities and NHS organisations that bring together academics and clinicians to translate scientific breakthroughs into potential new treatments, diagnostics and medical technologies for the benefit of patients, the public, and the health and care system. NIHR BRCs undertake high-quality early translational and experimental research.

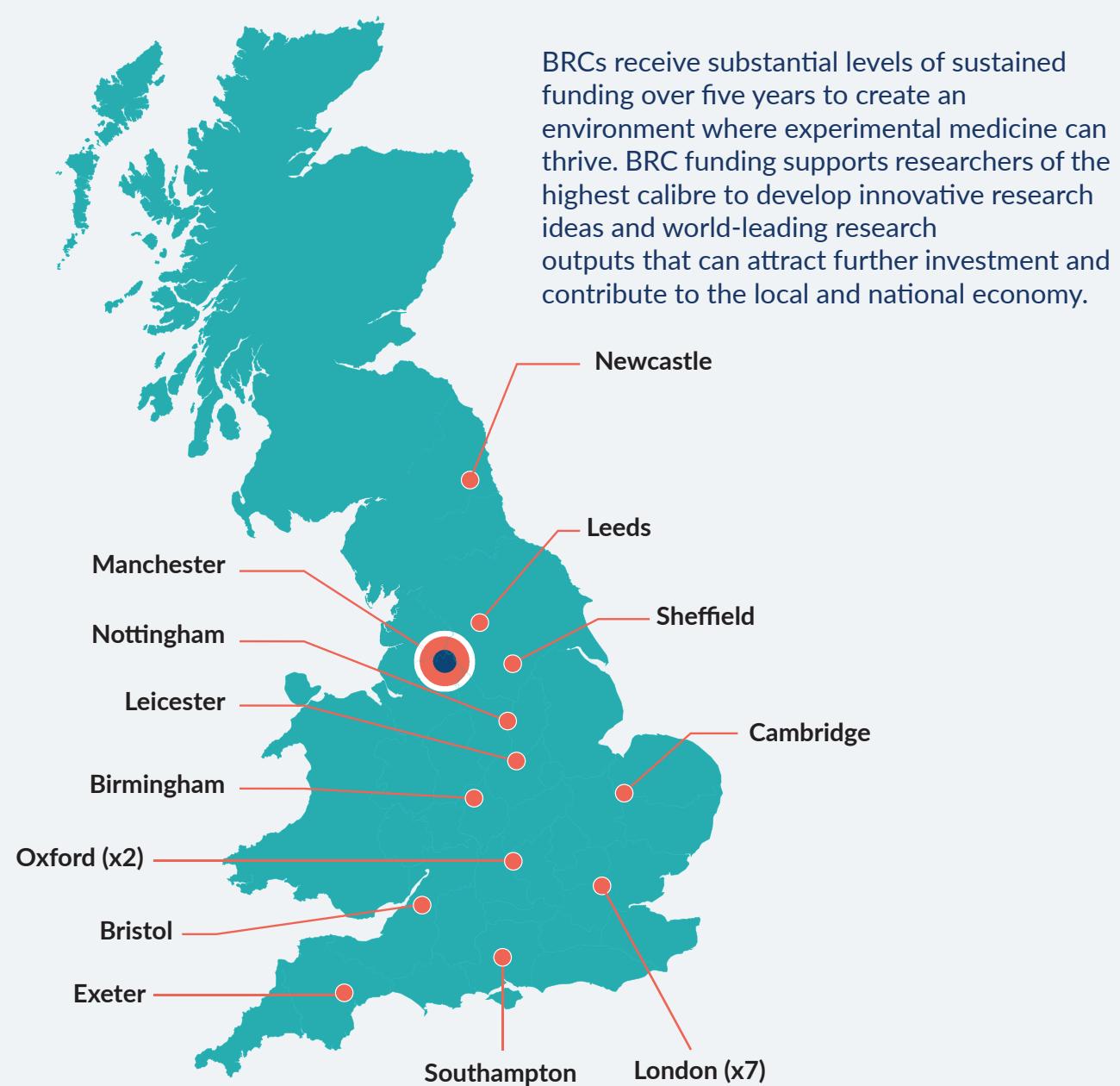


Figure 2: NIHR BRC – UK Landscape

In 2021 the NIHR launched a new, two-stage, open competition to designate and fund BRCs in England (total funding available = £790m). This was the fourth round of funding for the scheme since it was established in 2007/8. A total of 20 BRCs have been funded in England.

4.0 NIHR Manchester BRC

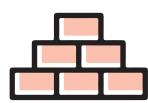
Manchester's funding has increased significantly over the past 10 years:

| 2012-2017 | 2017-2022 | 2022-2028 |
|----------------------------------------------------------|----------------------------------------------------------------|-------------------------------------|
| Musculoskeletal Biomedical Research Unit £5.5m | Seven theme (+ Three cross cutting theme) BRC £28.5m | Thirteen theme BRC £64.1m |

Manchester BRC's vision is to drive personalised health and care for all. We will:



Embed early translational research further into our communities and localities by deepening the meaningful involvement of patients, public and civic partners.



Build a unique national powerhouse for innovation by combining the world-leading discovery and translational science capabilities of our partnership with a strong research culture centred on a committed, diverse and inclusive workforce.



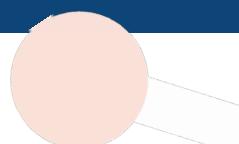
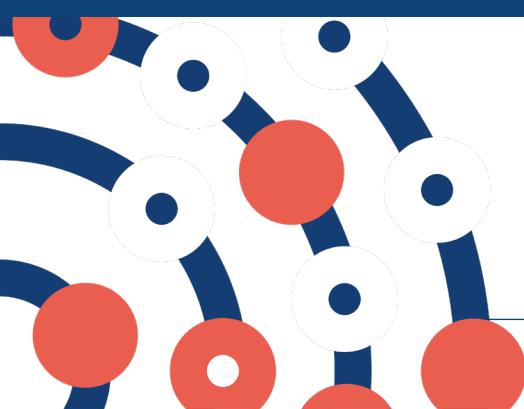
Accelerate at scale, the impact of our research through our mature and integrated innovation pipeline in order to achieve measurable improvements in health and wellbeing across all sections of society in our region and beyond.

We aim to:

- ✓ Deliver an innovative early translational research programme.
- ✓ Transform disease prevention and management at pace and scale with equity.
- ✓ Involve patients, public and practitioners throughout the research cycle to ensure a cohesive translational research workforce and a Team Science approach.

Our research will:

- ✓ Understand the illnesses most relevant to the population of our region.
- ✓ Find new ways to make correct diagnoses and treat disease.
- ✓ Discover how to prevent ill-health in people.



4.1 Host & Partners

Manchester University NHS Foundation Trust (MFT) hosts the [NIHR Manchester BRC](#) in partnership with The University of Manchester (UoM) and subcontracts are in place with a number of Partner Trusts. MFT, [The Christie NHS Foundation Trust](#), [Northern Care Alliance NHS Foundation Trust \(NCA\)](#) and [Greater Manchester Mental Health NHS Foundation Trust](#) (GMMH) all lead on certain research themes (see section 4.3) although it is important to note that all Themes work across Trusts and The University of Manchester, with pay and non-pay costs allocated across organisations as required. [Blackpool Teaching Hospitals NHS Trust \(BTH\)](#) and [Lancashire Teaching Hospitals NHS Foundation Trust \(LTHTr\)](#) are partners working in areas of clinical speciality linked to research themes, see Table 2.

4.2 BRC Governance

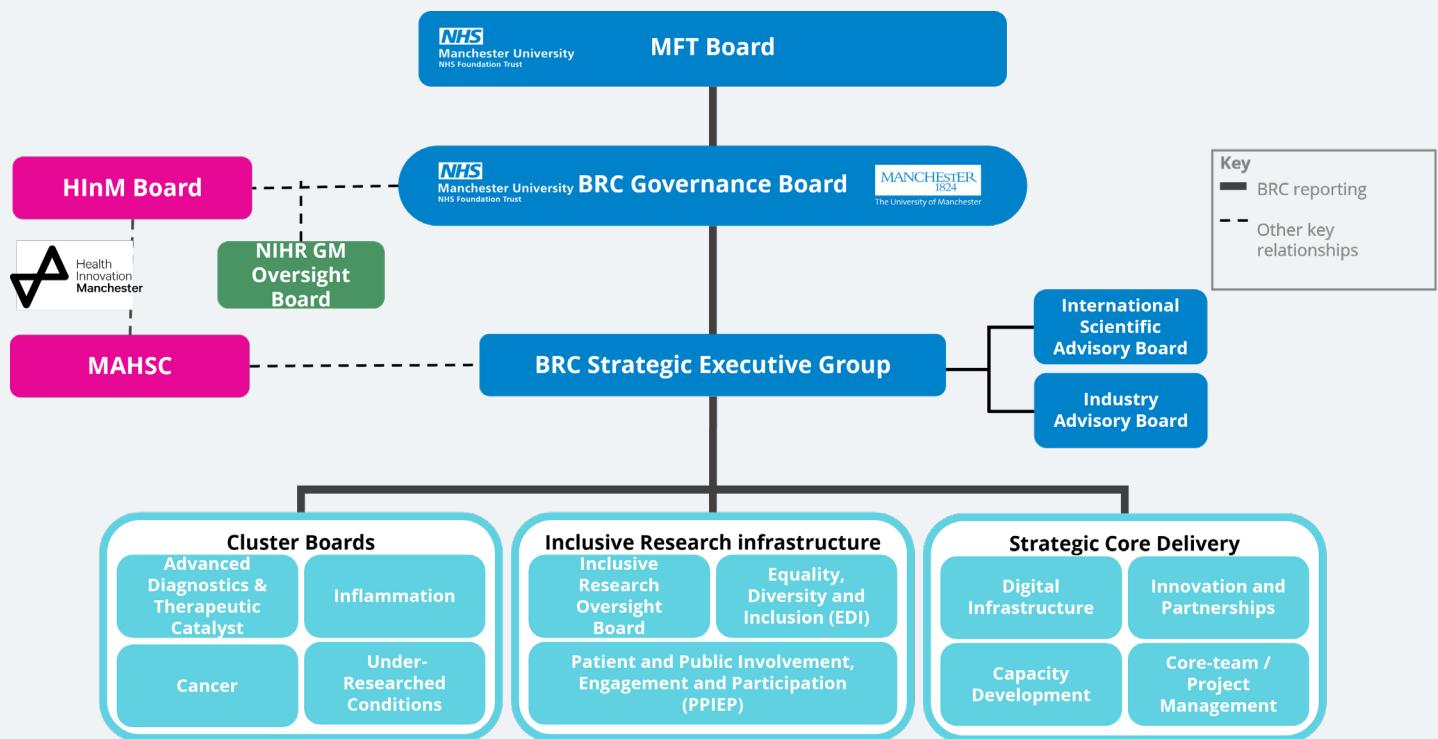


Figure 3: BRC Governance Structure

Responsibility for BRC contractual compliance and financial standards for the BRC are to the MFT Board through its Chief Executive.

The Manchester BRC Director is responsible for and has authority over the NIHR funding and is accountable to the BRC Governance Board and through this to the MFT Trust Board, for all aspects of BRC performance.

The BRC Governance Board is chaired by the MFT Group Chief Executive and holds the BRC's leadership to account for delivery of overall strategic objectives and financial performance, and monitors the BRC using the MFT Ulysses Risk Management System. Significant changes to the BRC budget and/or Themes require Governance Board approval. Membership includes senior representatives from The University of Manchester, all NHS Partner Trusts, the [Medicines Discovery Catapult](#), our International Scientific Advisory Board (ISAB) and public contributors.

The **BRC Strategic Executive** is chaired by the BRC Director and drives delivery of a cohesive scientific strategy across all our partners, promotes and invests in cross-theme scientific programmes and champions equal and inclusive support for researchers. Membership includes Cluster Leads (see Table 1), Theme Leads, Greater Manchester NIHR infrastructure leadership, Leads for our Strategic Core Delivery areas (Fig 4) as well as public representatives, digital infrastructure, communications, children's research and our Inclusive Research infrastructure (see Table 1).

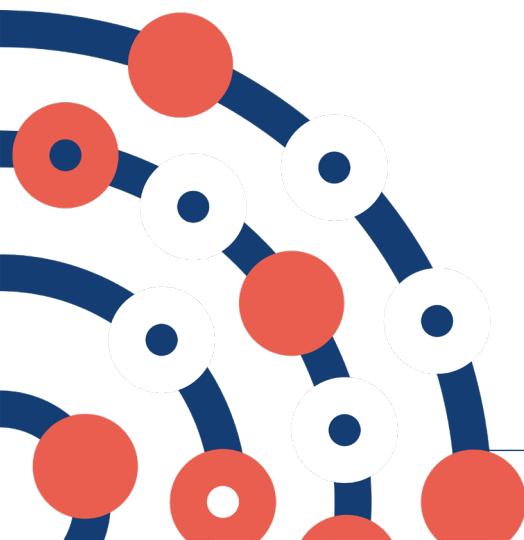
The BRC Operational Director oversees the delivery of BRC core infrastructure workstreams, working within a specialised core team (see section 8.2) across Themes and key strategic areas. The BRC Operational Management Team is responsible for managing the BRC Governance arrangements.



The thirteen research Themes are grouped into four Clusters (Fig 4) each overseen by a **Cluster Board** which is chaired by the Cluster lead with attendance from all other themes within the Cluster, Cluster Manager and other relevant attendees from across the BRC. Clusters drive further integration across BRC Themes and foster collaborations within and across clusters to optimise outputs and impact of the BRC.

Each of the thirteen Themes has two **Theme Leads** who have responsibility for Theme management and progress towards delivery of strategy, SMART objectives and financial performance. Each co-Theme Lead will assume oversight for the Theme on assigned strategic activities (PPIEP, partnerships, EDI, capacity building). Themes have regular meetings chaired by the Theme Lead and attended by Programme Leads, Theme Manager and relevant strategic areas as required e.g. capacity building.

The International Scientific Advisory Board (ISAB) chaired by the Dean of the Faculty of Medicine, University of British Columbia, critically assesses and advises on scientific strategy, ambitions and progress. The ISAB provides annual independent feedback to ensure that we remain internationally leading. An ISAB-led formal 'mid-term' review (30 months) will advise on prioritisation and deprioritisation of BRC programmes. Members of ISAB include clinical, academic and industrial experts across the BRC key research areas.



The Industry Advisory Board (IAB) draws upon expertise from across the commercial and charity sectors to: provide industry insight on best routes to commercialisation in target markets, to act as 'critical friends' providing input on the attractiveness, maturity and relevance of our outputs to industry sectors and to help identify the right partners, and act as advocates on a global stage, in order to attract appropriate collaborations. This board chaired by the CEO of [Medicines Discovery Catapult](#), forms part of our ISAB and brings commercial expertise from across the global health and digital sectors.

4.3 BRC Clusters & Research Themes

Manchester BRC has thirteen different research Themes. All thirteen BRC Themes have internationally leading research strengths and address major unmet clinical needs so that we will have local, national and global impact. Themes are categorised into four Clusters to maximise cohesion and encompass a wider geographical reach and mission.

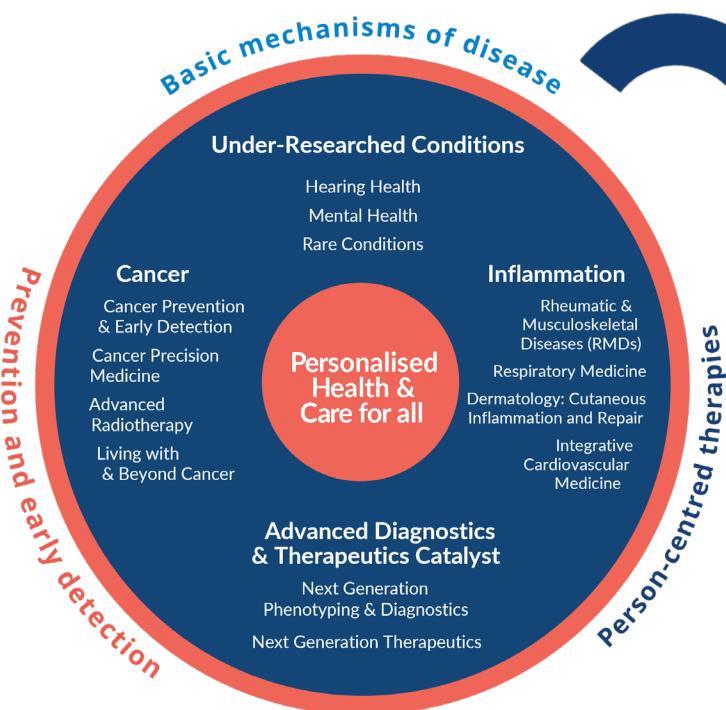


Figure 4: BRC Clusters and research themes.



| Advanced Diagnostics & Therapeutics Catalyst | Inflammation Cluster | Cancer Cluster | Under-researched Conditions |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Cluster Lead: Professor Maya Buch Maya.Buch@manchester.ac.uk</p> <p>Cluster Manager: Mamoona Ahmed Mamoona.Ahmed@mft.nhs.uk</p> | <p>Cluster Lead: Jaclyn Smith Jaclyn.Smith@manchester.ac.uk</p> <p>Cluster Manager: Zoe Talks Zoe.Talks@mft.nhs.uk</p> | <p>Cluster Lead: Professor Fiona Blackhall fiona.blackhall@nhs.net</p> <p>Cluster Manager: Emma Thorpe emma.thorpe@nhs.net</p> | <p>Cluster Lead: Professor Bill Newman William.newman@manchester.ac.uk</p> <p>Cluster Manager: Cath Wright Cath.Wright@manchester.ac.uk</p> |
| <p><u>Next Generation Phenotyping & Diagnostics</u></p> <p>Leads: Rachel Lennon & Graeme Black</p> <p>Theme Manager: Mamoona Ahmed</p> | <p><u>Rheumatic & Musculoskeletal Diseases</u></p> <p>Leads: Dr James Bluett & Andrew Morris</p> <p>Theme Manager: Nisha Nair</p> | <p><u>Cancer Prevention & Early Detection</u></p> <p>Leads: Pierre Martin-Hirsch & Emma Crosbie</p> <p>Theme Manager: Emma Thorpe</p> | <p><u>Hearing Health</u></p> <p>Leads: Gaby Saunders & Chris Plack</p> <p>Theme Manager: Cath Wright</p> |
| <p><u>Next Generation Therapeutics</u></p> <p>Leads: Maya Buch & Julie Gough</p> <p>Theme Manager: Mamoona Ahmed</p> | <p><u>Respiratory Medicine</u></p> <p>Leads: Stephen Fowler & Jacky Smith</p> <p>Theme Manager: Zoe Talks</p> | <p><u>Cancer Precision Medicine</u></p> <p>Leads: Caroline Dive & Fiona Blackhall</p> <p>Theme Manager: Suzie Bickley</p> | <p><u>Mental Health</u></p> <p>Leads: Katherine Berry & Roger Webb</p> <p>Theme Manager: Michelle Gilberthorpe</p> |
| <p>Further information about the different research themes and projects can be found at the Manchester BRC website.</p> | | <p><u>Dermatology: Cutaneous Inflammation & Repair</u></p> <p>Leads: Richard Warren & Jo Dumville</p> <p>Theme Manager: James Yates</p> | <p><u>Cancer Advanced Radiotherapy</u></p> <p>Leads: Tim Illidge & Ananya Choudhury</p> <p>Theme Manager: Lois Gardner</p> |
| | | <p><u>Integrative Cardiovascular Medicine</u></p> <p>Leads: Bernard Keavney & Maciej Tomaszewski</p> <p>Theme Manager: James Yates</p> | <p><u>Rare Conditions</u></p> <p>Leads: Bill Newman & Sid Banks</p> <p>Theme Manager: Rachel James</p> |
| | | <p><u>Living With and Beyond Cancer</u></p> <p>Leads: Kim Linton & Chris Miller</p> <p>Theme Manager: Louise James</p> | |

Table 1: Clusters & Leads

Disease Complexity and Multi-morbidity

- ✓ Next Generation Phenotyping and Diagnostics (NGPD)
- ✓ Next Generation Therapeutics (NGT)



Disease complexity includes the presence of distinct subsets within a condition as well as common pathways across conditions, and presumes multiple long-term conditions (MLTCs) occur within chronic diseases in a non-random way. This Cluster harnesses our systematic discovery, data science and early phase trials capabilities to provide a deeper understanding of disease mechanisms, including how inequalities and social factors impact biological processes. It provides a platform to provide early proof of concept for our novel therapeutics pipeline and accelerate new diagnostics and precision therapies towards later stage development.

Inflammation

- ✓ Rheumatic and Musculoskeletal Diseases (RMDs)
- ✓ Respiratory Medicine
- ✓ Dermatology: Cutaneous Inflammation and Repair
- ✓ Integrative Cardiovascular Medicine.



We have basic science excellence in genomics ([Versus Arthritis Centre of Excellence](#)), immunology and inflammation ([Lydia Becker Institute of Immunology and Inflammation](#)) and fibrosis ([Wellcome Trust Centre for Cell-Matrix Research](#)). This Cluster addresses several of the most common causes of death and disability in our region and nationally in which prognosis is strongly influenced by deprivation and adverse social determinants. Themes will deepen understanding of the common and individual processes driving disease evolution, co-morbidities and therapeutic responses and translate these to precision trials in patients across the life course to reduce morbidity and mortality.

Cancer

- ✓ Cancer Prevention and Early Detection (CPED)
- ✓ Cancer Precision Medicine (CPM)
- ✓ Advanced Radiotherapy (AdvRT)
- ✓ Living with and Beyond Cancer (LWBC)



This Cluster addresses emerging challenges and opportunities to improve the lives of all patients with cancer, including people at risk of cancer. It provides a patient centred approach to research in earlier diagnosis, better treatment and personalised, follow-up care.

High-burden Under-Researched Conditions

- ✓ Hearing Health
- ✓ Mental Health
- ✓ Rare Conditions



A national priority is to address conditions that cause significant morbidity and disability, but which traditionally have less per patient research funding. Across this Cluster are examples of unmet need for people with protected characteristics and hidden disabilities including neurodiversity. This Cluster will focus on prevention and early diagnosis to reduce long-term disease burden and use novel approaches including gene therapies, digital interventions and devices to transform the lives of patients.

Themes within Clusters may have research activities across a number of NHS Trusts and the University but all Themes have a nominated lead Trust:



| Trust | Themes |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <u>Manchester University NHS Foundation Trust (MFT)</u> | <ul style="list-style-type: none"> • Next Generation Phenotyping and Diagnostics • Next Generation Therapeutics • Rheumatic Musculoskeletal Diseases • Respiratory Medicine • Integrative Cardiovascular • Cancer Prevention and Early Detection • Rare Conditions • Hearing Health |
| <u>The Christie NHS Foundation Trust</u> | <ul style="list-style-type: none"> • Cancer Precision Medicine • Advanced Radiotherapy • Living with and Beyond Cancer |
| <u>Northern Care Alliance (NCA) NHS Foundation Trust</u> | Dermatology and Wound Healing |
| <u>Greater Manchester Mental Health NHS Foundation Trust (GMMH)</u> | Mental Health |

| Trust | Areas of speciality |
|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| <u>Lancashire Teaching Hospitals NHS Foundation Trust (LTHTr)</u> | <ul style="list-style-type: none"> • Cancer • Next Generation Phenotyping and Diagnostics • Respiratory |
| <u>Blackpool Teaching Hospitals NHS Foundation Trust</u> | <ul style="list-style-type: none"> • Cardiology and Haematology • Cancer |

Table 2: Area of speciality across Partner Organisations

5.0 Children's Research and links to BRC

Manchester BRC is keen to support the integration of children's research across all Themes and is working closely with Royal Manchester Children's Hospital teams (RMCH).

Importance of children's research

Opportunity to start well, live well

Deep inequalities in child health indicators in Greater Manchester – 45% of children below poverty line, rising infant mortality (6.4 per 1000 live births)

Challenges - linguistic/cultural diversity, public health, obesity, poor mental health



Children's Research 2025 – RMCH Strategy



Vision: To provide the highest quality of clinical care with research in the prevention of ill health, early and rapid diagnosis, improvement clinical management and health outcomes



Stakeholders: Children and Young People, Researchers, Clinicians, Nursing, Midwifery and Health Professions (NMAHP), Commercial, Life Science Partners, Charity/Philanthropy

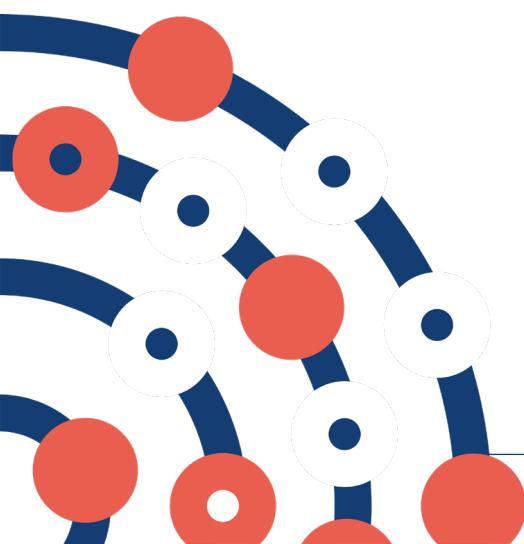


Aims & Objectives: ENABLE research infrastructure, capacity and opportunity; GROW research excellence in existing and developing areas; MEASURE benefit and impact of research output; CONNECT research leadership and collaboration.

Key Contacts

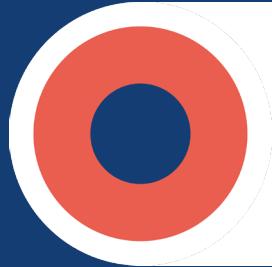
Dr Emma Woodward
Children's Research Lead
emma.woodward@mft.nhs.uk

Lynsey Priest
Strategic Projects Manager
lynsey.priest@mft.nhs.uk



Why linked to Manchester BRC?

- Integrating Children's component to reinforce Manchester's unique capacity for translational research across all ages
- Levelling up – inequalities/population health/ focus on early life research
- Children's research embedded naturally in themes e.g., Rare Conditions, Mental Health, Hearing Health
- Support delivery of Children's R&I Strategy across all aims
- Seven key research active specialties (Child Mental Health, Allergy Immunology Infection, Inborn Errors in Metabolism, Endocrinology, Haematology, Oncology, Nephrology, Hearing Health) and 12 high potential emerging research specialties
- NIHR Clinical Research Facility at RMCH
- Co-location with all ages services -St Mary's, MRI, other hospitals + University of Manchester and Greater Manchester Academic Health Campus
- Offers unique Greater Manchester perspectives on cross cutting themes of health inequalities and datasciences/digital health technologies
- Paediatric research features in every Cluster, including key programmes of work on:
 - ✓ Childhood arthritis (RMDs),
 - ✓ Rare cancers (Cancer themes and Rare Conditions)
 - ✓ Outcome prediction models to improve paediatric and teenage (and living with and beyond cancer) , young adult (TYA) patient treatment and survival in proton therapy (Advanced Radiotherapy)
 - ✓ Neurodevelopmental disorders (Mental health and Rare Conditions)
 - ✓ Autism (Mental health),
 - ✓ Asthma (Respiratory),
 - ✓ Fetal medicine (Cardiovascular)
 - ✓ Hearing loss from ototoxicity in babies (Hearing Health) plus hearing booth in Children's CRF.
 - ✓ Novel therapies for rare diseases (Rare Conditions)
 - ✓ Stem and gene therapy for cancer and rare conditions (Cancer and Rare Condition themes)



For further information please contact:

lynsey.priest@mft.nhs.uk,
Lynsey Priest, BRC Strategic Projects Manager

6.0 Inclusive Research Infrastructure

6.1 Inclusive Research Oversight Board (IROB)

Established in December 2022, the Inclusive Research Oversight Board (IROB) aims to address inclusivity and health equity in the research conducted in the BRC.

Co-created with community leaders, researchers and Vocal, we define Inclusive Research as "Research that takes deliberate action to meet the health research needs of different people, to address barriers to inclusion and to promote environments where everyone feels included, respected and valued."

Inclusive research reflects inequalities, such as health inequalities and racial inequalities, diversity, equity and justice (e.g. targeting interventions at specific sub-groups).

The IROB focuses on the inclusivity of staff, patients and public.

The IROB embeds the principles of inclusive research into the experimental medicine programmes and strategies of BRC and Manchester Clinical Research Facility (CRF) by advising on, guiding and monitoring inclusive research practices across the BRC and the CRF. By providing internal peer review, peer support and expertise, the IROB acts as an essential bridge between a range of disciplines such as experimental medicine researchers and teams, methodologists, Patient and Public Involvement, Engagement and Participation, civic priorities and the BRC's Equality, Diversity and Inclusion teams.

For further details on the IROB can be found by contacting IROB@manchester.ac.uk



6.2 Equality, Diversity & Inclusion (EDI)

Equality, diversity, and inclusion (EDI) are central tenets of Manchester BRC, built on our world-leading track record of social responsibility (University of Manchester first in the world in the Times Higher Education Social Impact Rankings, 2021). We have established an Inclusive Research Oversight Board (IROB) that includes patients, citizens, public contributors, methodologists, and the Greater Manchester Integrated Care System. This board is instrumental in guiding our EDI strategy, helping to capture and understand the demographic diversity of people recruited to Manchester BRC and Manchester CRF research.

Our EDI strategy, co-produced with patient and public voices from various communities across our diverse region, is embedded into our scientific and governance structures. This ensures that our research is better delivered, more informed,

and serves diverse communities, including those considered disadvantaged or overlooked. Through meaningful engagement, we aim to understand the complex and diverse experiences and perspectives of our communities, promoting a more health research-confident population.

To address patient needs and respond with agility to changing circumstances, our academic and workforce training programs will embrace the diversity of people, skills, values, and behaviours required for Team Science in biomedical research. We will develop and support a diverse workforce through our recruitment, working practices, and operational planning, taking bold actions to address under-representation and tackle systemic bias. This includes priority actions such as appointing an EDI Lead, forming an EDI team, and establishing an EDI working group.



Our strategy is built on three pillars:

Coproduction:

We listen to and act on people's experiences by involving our workforce and stakeholders at all stages of the strategy's development.

Value: We use EDI as a tool to achieve our goals, embedding it into our everyday work by identifying areas of similar focus across partner organizations and developing an EDI strategy that creates improvement within each perspective.

Behavioural Equality:

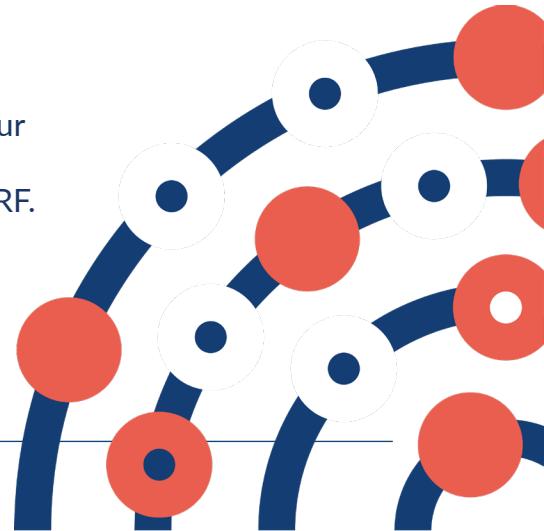
We ensure our EDI work is evidence-based, considering a range of information sources to inform our strategy.

The impact of our strategy will be measured across four perspectives:

- Developing a more inclusive and diverse workplace.
- Creating an evidence-led EDI case study library to standardize sharing of EDI projects and knowledge.
- Ensuring EDI principles are embedded across BRC and CRF through training.
- Fostering a culture where all team members are encouraged, recognized, and valued.

We are committed to regularly updating our strategy based on feedback and continuous learning, ensuring it evolves to meet the needs of our workforce, students, and research participants. The progress of our EDI strategy will be continually reviewed through our inclusive research infrastructure and governance structures, with annual formal mid-term reviews scheduled for both the BRC and CRF.

More information on the joint EDI Strategy with the NIHR Manchester CRF can be found [here](#).



6.3 Patient & Public Involvement, Engagement & Participation (PPIEP)

Manchester BRC will deliver an integrated programme for patient and public involvement, engagement and participation (PPIEP) in collaboration with [Vocal](#) and our extensive networks of public, patient and community partners. Vocal provides a shared PPIEP capability to NIHR infrastructure in GM and the North-West (including Manchester CRF) and actively collaborates with other PPIEP expertise in the region, thereby providing access to best practice

and economies of scale.

Vocal's vision is to bring people and health research together for mutual benefit. Through exploring people's experiences, researchers have been able to develop and improve research leading to better diagnosis, treatments and care. PPIEP is a fundamental pillar for our ambitions for inclusive research.



- ✓ Theme and Cluster specific high-quality, inclusive public involvement initiatives, by building on our existing practice, leadership and partnerships. **Impact: BRC research is enriched by PPIEP**
- ✓ A comprehensive training programme co-created with community and Greater Manchester (GM) research partners, building on our established programmes. **Impact: increased researcher and public contributor capabilities and confidence.**
- ✓ Community listening, support and relationship building. **Impact: more community-informed research; promotion of equity in research culture.**
- ✓ Creative, accessible and inclusive online and in-person engagement initiatives related to areas of science cutting across all BRC Themes. **Impact: shared learning and dialogue about research; public, patient and community contributors move from engaged to actively involved and/or participants.**
- ✓ Working with IROB, advise on approaches based on evidence and lived experience to support increased participation in research from populations and localities where there is greatest health need. **Impact: Increased understanding and practice to support inclusive participation in experimental research**
- ✓ With IROB, thoroughly assess, evidence and disseminate our PPIEP practices. **Impact: Deeper understanding of the difference involvement and engagement makes to people, participation and research.**

PPIEP - Since 2017 Vocal has pioneered a joined-up approach to PPIEP across GM NIHR infrastructure ensuring a collaborative community of practice, economies of scale, and tailored approaches ([see paper](#)). By bringing together patients, carers, artists, researchers, scientists and others health professionals to share their views, expertise and lived experiences, we develop and deliver innovative services and creative award-winning programmes that enhance health and research for the benefit of everyone. Vocal has informed, and is informed by the UK National Standards for Public Involvement, and has supported Manchester's pilot of the NIHR's Race Equality Framework in 2021-2022. The Framework's resulting actions for change, implemented across NIHR infrastructure in GM, target initiatives towards workforce diversity, senior organisational allyship and public involvement activities with people with experience of racial inequalities.



7.0 Strategic Core Delivery

7.1 Digital Infrastructure

Academic Lead: **Professor Alejandro Frangi**
a.frangi@manchester.ac.uk

1

Access to population health data for research (Greater Manchester Care Record)

- De-identified, linked health and social care records for research from the entire 3.2m GM population has been made available for research through Graphnet's CareCentric platform / GM secure data environment.
- A list of current publications based on the GM Care Record can be found [here](#).
- For more information see: <https://gmwearebettertogether.com/>
- To enquire about proposing a research study email: GMCR-ops@manchester.ac.uk

2

Deep clinical phenotypes from Trust EPRs: We work with Clinical Data Science Units and informatics teams at our partner Trusts to provide researchers with access to deep phenotypic information from hospital EPRs, clinical images, and outpatient letters.

3

NIHR Health Informatics Collaborative (HIC)

- Sharing and reuse of clinical data for research across a national network of NHS trusts.
- The NIHR HIC network facilitates the equitable re-use of NHS data for translational research by sharing routinely collected data under clinical themes for research purposes.
- Manchester BRC trusts currently participate in eight NIHR HIC themes (Cardiovascular Diseases/Covid-19, Hearing Health, Colorectal cancer, Transfusion dependent anaemia, Renal, Critical care, Diabetes, Viral hepatitis).
- For more information see <https://hic.nihr.ac.uk/> or email ruth.norris@manchester.ac.uk

4

FAIR principles & HDR UK: In line with the Principles for Data Standards set out by [Health Data Research-UK](#), we collaborate with our partner Trusts, [GM Combined Authority](#), and the [GM Integrated Care Service](#) to improve the **Findability, Accessibility, Interoperability, and Reuse (FAIR)** of digital assets. Manchester NHS FT is a member of the [UK Health Data Research Alliance](#).

5

Patient generated health data: The digital infrastructure team has more than ten years of experience and strong capabilities in collecting and analysing patient generated health data for research using smartphones and wearable sensors to study rhythms of wellbeing and disease. e.g. REMORA (NIHR PGfAR, £2.1m) and CONNECT (Wellcome, £6.4m).



6

The Christabel Pankhurst Institute for Health Technology Research and Innovation: Translational support via the [Christabel Pankhurst Institute](#): a regional partnership (Greater Manchester Combined Authority Health Innovation Manchester GMCA, HinM, Manchester Science Park (MSP), MFT, UoM) for multidisciplinary and collaborative development, evaluation, and implementation of new health technologies. Improving translation of new digital health technologies to clinical practice through collaborative partnerships. For more information see <https://www.pankhurst.manchester.ac.uk/> or email Pankhurst@manchester.ac.uk

7

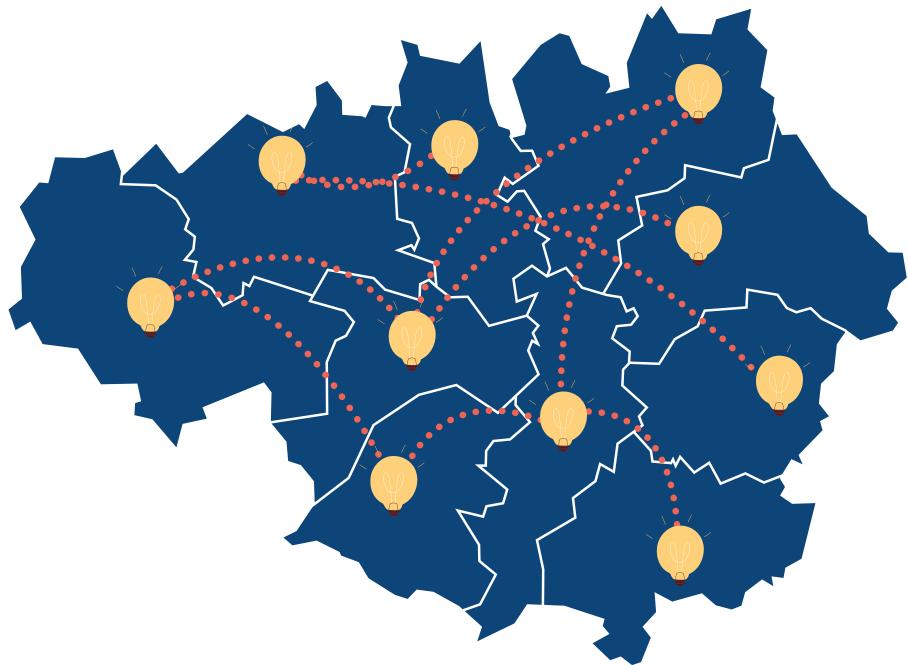
General: Supporting Manchester BRC researchers with information governance, data management and engineering, software development, and data analysis.

7.2 Innovation & Partnerships

Academic Lead:
Professor Rick Body
richard.body@manchester.ac.uk

Innovation and Partnerships Lead:
Colette Inkson
colette.inkson@mft.nhs.uk

Innovation and Partnership working is a core activity for our BRC, with a wealth of support available for our researchers to access across the partner trusts and the University and wider GM ecosystem. Immediate interactions between researchers and existing/potential future partner organisations (including industry, charity and voluntary sector organisations) will be managed locally by the research Themes linking in to appropriate support across the BRC and GM.



If you are unsure of who best to contact regarding commercial activities for your organisation please contact colette.inkson@mft.nhs.uk and we can direct your enquiries.

Strategic programmes

A package of key strategic activities including innovation training (ITS see below), industry showcase sessions, collective impact forums/town halls, and pump-prime activities has been developed to underpin innovation and partnership working across the BRC. To foster cross theme working, and to help enable the Themes to engage with the strategic programmes for Innovation and Partnership working, we will also link in with Themes at a Cluster level.

Strategic Partnerships and Commercialisation

We hope to build new cross-cutting strategic partnerships aligned with our vision and values. The Innovation and Partnerships team will be working with research Clusters to identify commercial synergies and activities that could be shared and harnessed across Themes.

To support invention capture, IP management and investments we have engaged the [University of Manchester Innovation Factory \(UoMIF\)](#) for additional support. Each Cluster has been assigned a lead UoMIF manager to provide focused oversight, who will attend Cluster and Theme levels as required and can be contacted for support. Details of your assigned UoMIF manager can be found in the BRC IP management policy document which can be made available upon request.



7.3 Capacity Building, Training & Opportunities

Academic Capacity Building Lead:
Professor Georgina (George) Moulton
Georgina.moulton@manchester.ac.uk

Education and Training Manager:
Lisa Murray
Lisa.murrray@mft.nhs.uk



Vision: To build a research community and skills capacity from basic science to clinical practice in partnership with other groups/organisations across Greater Manchester.

Training Communication

The BRC offers a wide range of education and training opportunities for staff and students. We recommend monitor the [Manchester BRC website](#) for details of upcoming opportunities and access to materials. All materials in the induction booklet will be mirrored and expanded on through the [BRC Training webpages](#).

Background

The BRC comprises individuals from a range of backgrounds, for example, clinicians, healthcare professionals, biology research scientists, data scientists and informaticians, and operations and management professionals. They work across academic, healthcare, and industry settings, often, but not exclusively, focusing on programmes of work that are within specific themes. To support the research with a sustainable research workforce, to encourage cross-theme working, and to foster inter-disciplinary working ('team research'), the BRC provide a series of bespoke training schemes.



The capacity building strategy aims to bring together and train a BRC community of biomedical researchers and professionals who will be able to conduct biomedical research. To do this we focus on three key areas, each comprising a range of schemes and opportunities that individuals will be able to access. We work in partnership with other groups and organisations across the local, regional, and national footprint to deliver these opportunities, including NHS Trusts, NIHR infrastructure and industry.

Training and Capacity Building

Our academic training programmes embrace the diversity of people, skills, values, and behaviours embodied through our Team Science approach. We aim to:

- **Embed:** innovative training approaches to build capacity in Experimental Medicine and create a diverse and inclusive BRC Faculty.
- **Widen:** access to training across GM-NIHR Infrastructure, Northern BRCs and Northern Ireland.
- **Deliver:** training tailored to individual needs that spans the entire career pathway including undergraduate, postgraduate, and post-doctoral training and academic career development.

1

Academic Programmes

PhD Studentships (clinical and non-clinical) are offered across the themes to individuals from varied backgrounds who are looking to develop a career in experimental research. These are through the Doctoral Academy at The University of Manchester with the provision of staged milestones throughout the study period. In addition, there are opportunities to bring cohorts together for skills development and research showcases.

Fellowship programme is devised in conjunction with the Faculty of Biology, Medicine and Health at The UoM Fellowship Academy to support clinical fellowships, mentored by NIHR Senior Investigators.

2

Ongoing Professional Development and Careers

Clinical Research Investigator Scheme is an opportunity for senior clinicians with a PhD or MD who often do not have time to do research, to have some paid dedicated time to develop a research portfolio. Individuals are supported over two years for 20% of their time.

Healthcare Professional Placement Scheme provides an opportunity for Nurses, Midwives, Allied Health Professionals, and other healthcare professionals with little or no research experience the chance to experience what working in research is like. Placements are tailor-made in length to suit project and researcher.

Innovator Training Scheme (ITS) is a joint programme between Manchester BRC and [Translation Manchester](#) and supports researchers to explore and develop innovations and routes to clinical impact, alongside industry partners, and exploit their research for the benefit of patients.

Networks and Communities

Training Event and Seminar Series offers flexible online and face-to-face training for all who wish to know more about biomedical research and to develop specific skills relevant to their work. The training provides the opportunity to share research and best-practice, inform and educate, develop the community and foster cross-theme research ideas. They focus on the work across the BRC, but also provide an opportunity to be trained in transferable skills such as innovation, communications, patient and public involvement and engagement (PPIE), and team research. This is responsive to the needs of the community, and forms the basis of a training passport, which will outline some of the core skills and areas required to work in an inclusive biomedical research environment.

Promoting clinical and allied health research careers will be supported over the five years. We will write case-studies and develop a careers map for the BRC to show the development of our researchers and teams.

Communication of training will be key to develop and access communities. In particular we will signpost to funding opportunities for individuals to develop their careers.

Coaching and Mentoring schemes will be available through the BRC to ensure we have an open development culture within our community, and to focus on developing key management and leadership skills to reach the next career stage. We will focus on the development of Rising Stars, to develop the future leaders in biomedical research. These will be based on other schemes such as NIHR Mentoring Scheme and University coaching and mentoring programmes, but tailored to suit our community.

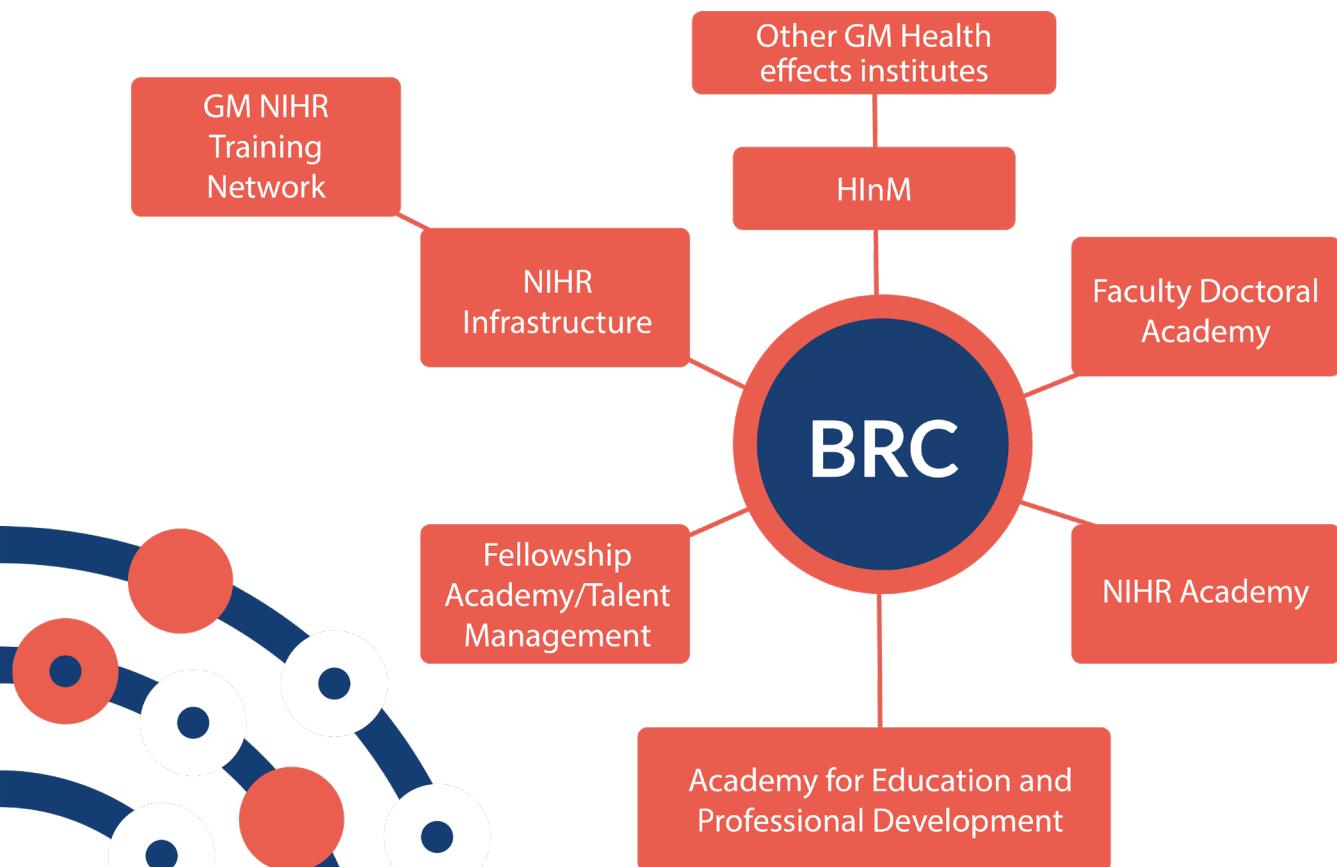


Figure 5: Training Infrastructure

| Academic programme | Professional Development | Careers & Community Building |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Innovative research and/or interdisciplinary training through:</p> <ul style="list-style-type: none"> • PhD studentships • Fellowships • Integrated Clinical Academic Training (ICAT) | <p>Clinical Research Investment Scheme (CRIS) for Senior Clinicians who would like to develop their research portfolio.</p> <p>Healthcare Professional Placement Scheme offering short flexible placements to Nurses, Midwives, Allied Healthcare Professionals, and others with little or no research experience.</p> <p>Training Seminar Series offering monthly flexible virtual and in-person training.</p> | <p>Build communities across research boundaries and organisations:</p> <ul style="list-style-type: none"> • Coaching, Mentoring & Leadership Scheme for Rising Stars. • PhD Buddy Scheme for students in training. • Active online communities of practice across GM and wider NIHR network. • Supporting EM research for all (Team Research & non-academic careers). • Promotion of careers & communication of training opportunities. |

Table 3: Programmes and Development Opportunities

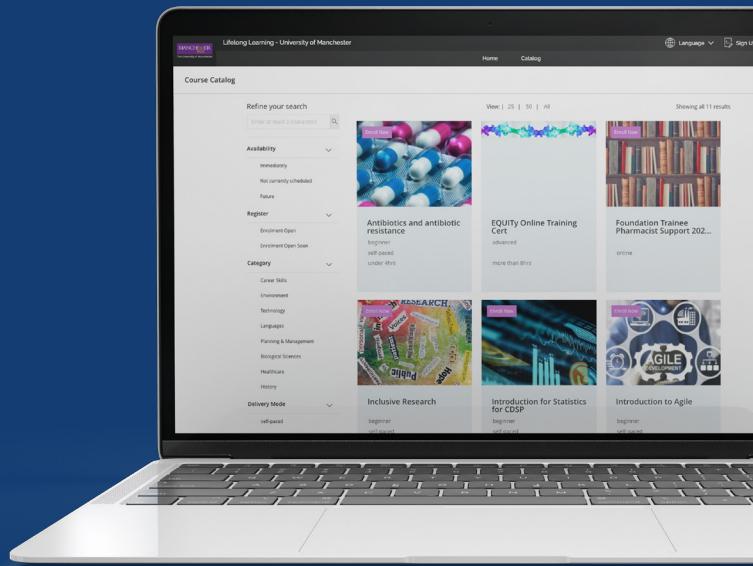
Induction Training for All

There is some core training that we recommend all BRC staff and students undertake. This includes:

✓ **Inclusive Research available via Lifelong Learning - University of Manchester.** The BRC will be mandating this course and are looking for all staff and students to complete this course (which takes two-three hours) within their first six months in post.

✓ **Impact** - is communicated via our BRC Directory.

✓ **Equality, Diversity and Inclusion (EDI)** - We recommend you access your employing organisation's training and through the delivery of the BRC EDI strategy we will be signposting to and offering additional EDI training. All members of a PhD/Clinical Fellowship supervisory team should have completed the 'Diversity in the Workplace' and 'Unconscious Bias' training before any interviews are conducted. We also expect supervisors to have completed training on supporting students and responding to student mental health problems before starting active supervision. Details can be found [here](#).

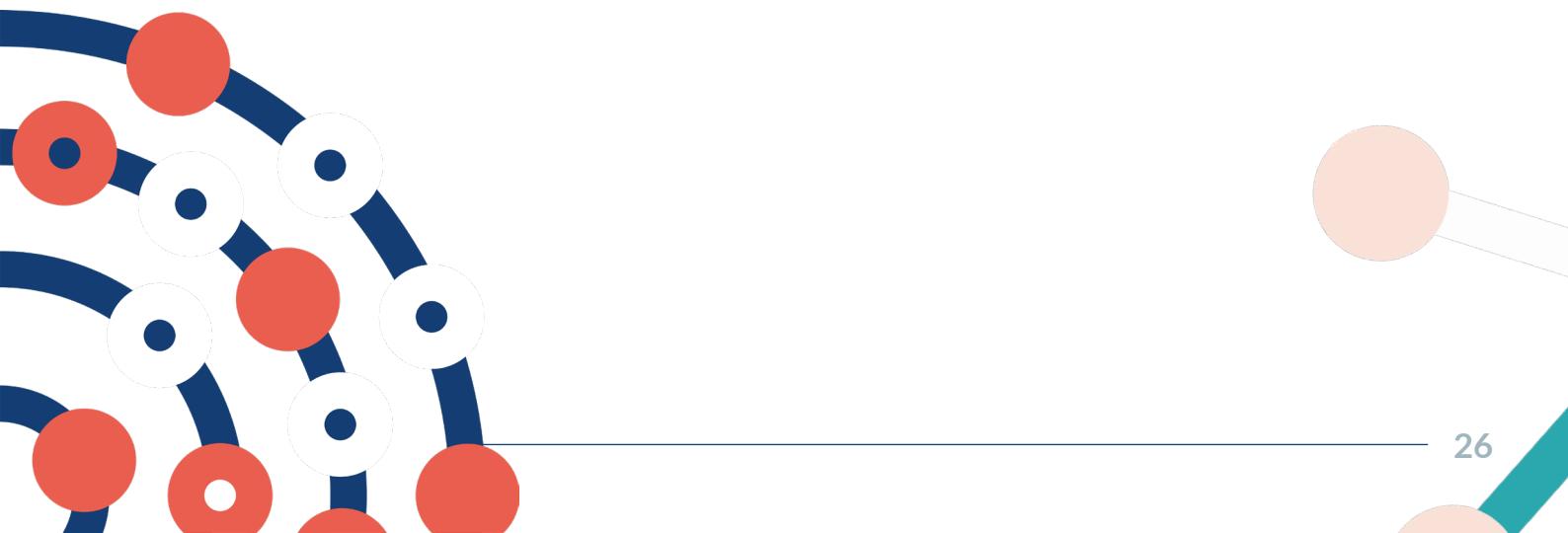


Other Training Opportunities

The BRC sits within a comprehensive training landscape, and we will work with individual organisations and networks to provide the BRC training that meets our needs. We have outlined some key organisations and schemes that are currently available below. However, please note, up-to-date information will be available on our website and through our communications.

Greater Manchester Research Training Landscape

- ✓ The Greater Manchester NIHR Research Training Network brings together the Manchester NIHR Biomedical Research Centre, [NIHR Patient Safety Translational Centre \(PSTRC\)](#), [NIHR Applied Research Collaboration GM](#), NIHR Clinical Research Facility (CRF), Clinical Research Network Greater Manchester (CRN) and other infrastructure to support those funded, affiliated or anyone that would like to engage in national and local training opportunities available. This will be through the joint provision and access of identified schemes and training in the BRC framework, in particular, shaping the training passport framework.
- ✓ The MFT Nurses, Midwives and Allied Health Professionals (NMAHP) Research Unit and [Manchester Clinical Academic Centre \(MCAC\)](#) is a collaboration between Manchester University Foundation Trust (MFT) and [The School of Health Sciences at The University of Manchester \(UoM\)](#).
- ✓ The [NCA Centre for Clinical Care and Research \(CCR\)](#) works with UoM and University of Salford to provide a foundation for NMAHP to gain skills and confidence to become research leaders.
- ✓ [NHS R&D North West](#) provides a number of training and engagement opportunities for NMAHP research capacity and capability development.
- ✓ The Manchester [Integrated Clinical Academic Training \(ICAT\)](#) programme provides clinical trainees at all stages of their career with opportunities and support to engage in research and academic training.
- ✓ The [Doctoral Academy](#) and Doctoral Training Programme Doctoral Academy supports and creates an environment that allows postgraduate research student to reach their full potential.
- ✓ The [Fellowship Academy](#) helps researchers gain externally-funded fellowships, from doctoral studies to senior levels.
- ✓ The [Manchester Academy Healthcare Scientist Education \(MAHSE\)](#) manages the development of healthcare science programmes.
- ✓ [Translation Manchester](#) brings together a network of support, facilities and expertise to make the pathway to translation quicker and easier through a programme of training schemes.



| | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <p>Manchester University NHS Foundation Trust</p> | <p>Manchester University NHS Foundation Trust (MFT) Education Team https://mft.nhs.uk/medical-education/</p> <p>Clinical Trials Clinical Trials Coordination Certificate (CTCC) https://research.cmft.nhs.uk/clinical-trials-coordination-certificate</p> |
|  <p>The Christie NHS Foundation Trust</p> | <p>The Christie NHS Foundation Trust MCRC Training https://www.mcrc.manchester.ac.uk/study/training-in-manchester/</p> <p>School of Oncology https://www.christie.nhs.uk/education</p> |
|  <p>Northern Care Alliance NHS Foundation Trust</p> | <p>Northern Care Alliance (NCA) NHS Foundation Trust Training Team https://www.northerncarealliance.nhs.uk/research-education/library/training</p> |
|  <p>Greater Manchester Mental Health NHS Foundation Trust</p> | <p>Greater Manchester Mental Health NHS Foundation Trust (GMMH) Training Team https://www.gmmh.nhs.uk/training/</p> |
|  <p>Lancashire Teaching Hospitals NHS Foundation Trust</p> | <p>Lancashire Teaching Hospitals NHS Foundation Trust (LTHTr) The Health Academy https://healthacademy.lancsteachinghospitals.nhs.uk/</p> |
|  <p>Blackpool Teaching Hospitals NHS Foundation Trust</p> | <p>Blackpool Teaching Hospitals NHS Foundation Trust Education Centre https://www.bfwh.nhs.uk/onehr/medical-workforce/medical-education/education-centre/</p> |



The [NIHR Academy](#) is responsible for the development and coordination of NIHR academic training, career development and research capacity development. An NIHR Academy member based within NIHR Infrastructure or Capacity Building Structures should satisfy all three of the bullet points below:

- ✓ Be undertaking a formal training/career development award, which should meet all of the following criteria: be competitive, include a training plan and have a defined end point (such as an application for further funding).
- ✓ Receive at least 25% funding from the NIHR for salary/stipend over the lifetime of the individual's award.
- ✓ Be hosted in a setting with a remit for research capacity development

The NIHR Academy holds a variety of in-person and virtual events every year. The highlight event is the annual NIHR Academy Members' Conference that provides NIHR Academy Members the opportunity to network, hear from a variety of inspirational speakers and develop their skills in a series of workshops.

7.3.1 NIHR Programme Overviews Awards & Fellowships

| NIHR Programme Overviews | |
|----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <u>NIHR Fellowship Programme</u> | The NIHR Fellowship Programme supports individuals on their trajectory to becoming future leaders in health and social care NIHR research. |
| <u>NIHR Research Professorship</u> | The NIHR Research Professorship is the flagship award for the NIHR. The scheme aims to fund research leaders of the future to promote effective translation of research. |
| <u>HEE-NIHR Integrated Clinical and Practitioner Academic Programme</u> | The Health Education England (HEE) / NIHR Integrated Clinical and Practitioner Academic (ICA) Programme provides research training awards for health and social care professionals, excluding doctors and dentists, who wish to develop careers that combine research and research leadership with continued practice and professional development. |
| <u>NIHR Infrastructure and NIHR Schools</u> | The NIHR Infrastructure and NIHR Schools include centres with a remit to grow future research capacity |
| <u>Integrated Academic Training (IAT)</u> | The NIHR offers three awards through the Integrated Academic Training (IAT) Programme specifically for doctors and dentists. The programme supports individuals to gain research experience as part of their clinical training. |
| <u>NIHR Local Authority Academic Fellowship Programme and Associated Opportunities</u> | This programme of fellowship schemes and short placement awards supports individuals based within local authority settings to develop as health and/or social care researchers whilst retaining their existing employment and salary. |
| <u>NIHR Global Health Research Training Programmes</u> | NIHR supports researcher career pathways to develop leaders in global health in low and middle income countries (LMICs) and in the UK. |

Table 5. NIHR Programme Overview

NIHR Programme Awards

| | |
|----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <u>NIHR Fellowship Programme</u> | The NIHR Fellowship Programme supports individuals on their trajectory to becoming future leaders in health and social care NIHR research. |
| <u>NIHR Research Professorship</u> | The NIHR Research Professorship is the flagship award for the NIHR. The scheme aims to fund research leaders of the future to promote effective translation of research. |
| <u>HEE-NIHR Integrated Clinical and Practitioner Academic Programme</u> | The Health Education England (HEE) / NIHR Integrated Clinical and Practitioner Academic (ICA) Programme provides research training awards for health and social care professionals, excluding doctors and dentists, who wish to develop careers that combine research and research leadership with continued practice and professional development. |
| <u>NIHR Infrastructure and NIHR Schools</u> | The NIHR Infrastructure and NIHR Schools include centres with a remit to grow future research capacity |
| <u>Integrated Academic Training (IAT)</u> | The NIHR offers three awards through the Integrated Academic Training (IAT) Programme specifically for doctors and dentists. The programme supports individuals to gain research experience as part of their clinical training. |
| <u>NIHR Local Authority Academic Fellowship Programme and Associated Opportunities</u> | This programme of fellowship schemes and short placement awards supports individuals based within local authority settings to develop as health and/or social care researchers whilst retaining their existing employment and salary. |
| <u>NIHR Global Health Research Training Programmes</u> | NIHR supports researcher career pathways to develop leaders in global health in low and middle income countries (LMICs) and in the UK. |

Table 6. NIHR Programme Awards

Fellowship Programmes

| | |
|-------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <u>Pre-Doctoral Fellowship</u> | NIHR Pre-Doctoral Fellowships are designed to support people who are looking to start or advance a career in health and social care research methodology. |
| <u>Doctoral Fellowship</u> | The NIHR Doctoral Fellowship is a three year full-time award that supports individuals to undertake a PhD in applied health or social care research. This fellowship may also be taken up on a part-time basis of between 50% and 100% whole time equivalent (WTE). |
| <u>Advanced Fellowship</u> | The Advanced Fellowship is for those at a post-doctoral level and can be utilised at several specific points of a researcher's career development. |
| <u>Development and Skills Enhancement Award</u> | The Development and Skills Enhancement Award (DSE) is a post-doctoral level award aimed at supporting NIHR Academy Members to gain specific skills and experience to underpin the next phase of their health and social care research career. |

Table 7. Fellowship Programme

8.0 BRC Core Funding Opportunities

The BRC offer a range of core funding opportunities. These core funding calls sit outside of the Theme and cluster funding calls and are designed so we can pivot funds to areas of strategic importance which can evolve over the timeframe of this BRC award. All funding opportunities will be announced via the [Funding Opportunities](#) Webpage and communication channels.

8.1 BRC Support

The BRC will be offering support to our staff and students across a number of areas including:

- ✓ Core-funded PhDs (in year 1 and 2).
- ✓ Support with external grant funding, including letter of support for fellowship applications
- ✓ PPIEP activity via [Vocal](#)
- ✓ Inclusive research advice and support via the Inclusive Research Oversight Board.
- ✓ Opportunities to work with industry, charity and third sector partners

Wider opportunities with the NIHR e.g. Senior Investigator awards, NIHR Academy

opportunities for funded 'trainees', and links to national NIHR initiatives including the Health Informatics Collaborative, Translational Research Collaboratives, and BioResource (see section 7.3).



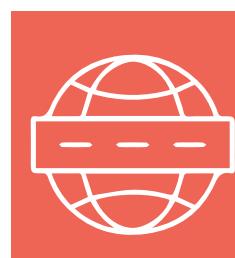


8.2 BRC Core Team

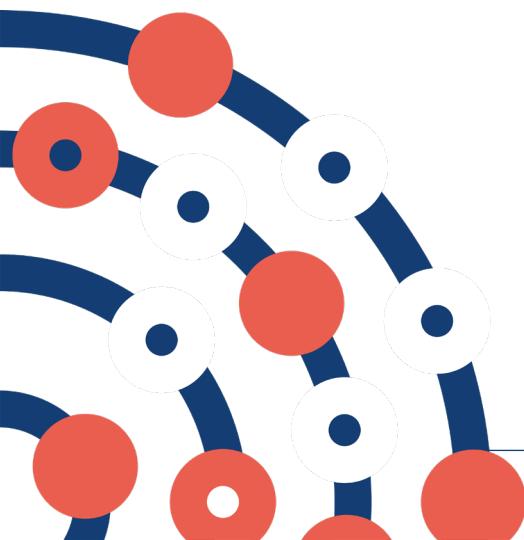
The BRC Core Team include specialists across Operational and Strategic Delivery Leadership, Theme Programme/Project Management, Innovation and Partnerships, Data, Communications, Inclusive Research, PPIEP, Education and Training, Funding Management and Administration.

The BRC Core Team ensures contractual obligations are met and work collegially to ensure high standards are adhered to across the BRC.

The BRC Core Team, support the monitoring of progress against objectives, budget management, risk management, reporting, identifying potential collaborations, contributing to multiple project facets to enhance research impact, value and delivery.



Themes are encouraged to contact their Theme project managers in the first instance or the Core Team for general questions about reporting, finance and other operational matters via ManchesterBRC@mft.nhs.uk



9.0 BRC Contractual Obligations

9.1 Roles & Responsibilities

All BRC Partners have signed a partnership agreement which reflects the terms and conditions of the main NIHR contract (held by MFT). All Theme Leads are listed in this contract as being responsible for delivery. Strategic area leads within the core BRC infrastructure are also responsible for delivery of their specific activities. We recommend that

Theme and Area Leads familiarise themselves with the details within the contract and partnership agreement. It is important that we work collectively across the BRC infrastructure to adhere to our contractual obligations and contribute to the success of our BRC, particularly in striving to meet and exceed our strategic aims and objectives.

Key responsibilities include:

- ✓ **Acknowledgement of NIHR support/funding in outputs.** A Manchester-specific guidance document is to follow and the NIHR guidance can be found [here](#).
- ✓ **Open access policy obligations:** NIHR guidance can be found [here](#).
- ✓ **Reporting requirements:**
 - NIHR Annual Report - comprised of three elements:
 - *Written section for BRC organisational level updating on progress against objectives as well as contributions to other sections of the report such as PPIEP, Industry, Capacity Building.*
 - *Data for each section of the finance and activity report including projects, publications, external income and intellectual property. Note, this data should be collected on an ongoing basis throughout the year by the theme and will require information from a number of sources. Further guidance will be sent by the Core Data Team.*
 - *Suggestions for impact case stories and top achievements, and where these are chosen for inclusion written up fully (with support from the BRC communications team).*
 - Highlight reports - detailing progress to inform various groups, including Cluster Boards, BRC Strategic Executive, BRC Governance Board and International Scientific Advisory Board. The content and frequency of these will vary according to the meeting.
 - Financial monitoring and reporting (see budget management section 9.3).



✓ **Responding to ad hoc requests from NIHR / Department of Health and Social Care (DHSC) where evidence is required for national reports and/or responses to Ministers and the Government.**

✓ **Attendance and participation in meetings:**

- Local, regional, national – Within the BRC governance structures, and where appropriate within the Greater Manchester research landscape and at a national level.
- Leads or nominated individuals - Some of these meetings will require the Theme/Area Lead(s) while others will ask the Theme to identify and nominate someone in their area to participate and lead on specific areas such as Capacity Building and EDI on behalf of the Theme.

✓ **Communicating our research:**

- Content creation - Support in developing and updating content on the BRC website.
- Notifying the BRC communications team - on any planned publications/press releases/ attendance at conferences/news items etc in a timely manner so these can be communicated and promoted more widely through BRC networks. Please see specific details and timeframes on this in the Communications section on pages 39 – 40.

✓ **Budget management:**

- Following financial terms and conditions – ensuring spend is within year and supports the theme/area achieving its objectives.
- Regular monitoring of the budget - with relevant Trust and University colleagues and reporting this to the core team and governance structures as required with plans relating to management of any identified over or underspend.
- Making invest/divest decisions - As opportunities arise. These will be discussed with Cluster Boards in the first instance.
- Contribute to Finance Reports in a timely manner for presentation at BRC Governance Board

✓ **Strategic focuses that should be key to decisions both within the Theme and Cluster:**

- Capacity Building
- Partnerships (charity, industry)
- Inclusive Research
- Digital
- Extending experimental medicine across Greater Manchester, Lancashire and South Cumbria
- Links with other NIHR infrastructure
- PPIEP
- Identifying new collaborative opportunities

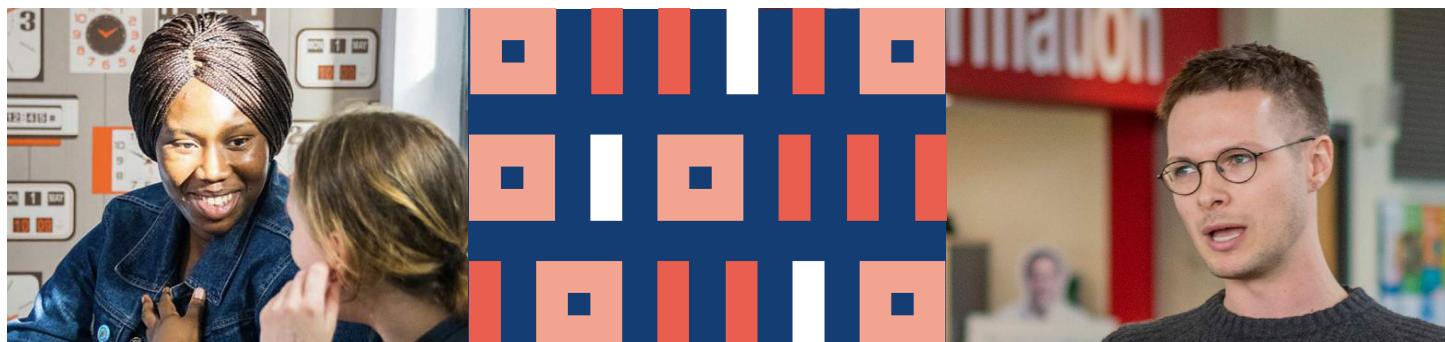


BRC Champion roles and definitions

We have identified leads from across each Theme in a number of our key strategic areas to support the delivery of the BRC aims.

Innovation and Partnerships Champions

- Develop and drive a commercialisation strategy for their Theme's programmes of work.
- Work with other Innovation lead across their Cluster to align and leverage activities.
- Work as part of a wider BRC group on strategic activities including the Innovator training scheme, annual IP audits as required by the NIHR.
- Audit commercial activity across the Theme.
- Contribute to industry 'show and tells' and workshops with our strategic partnerships.
- Attend meetings as required through the BRC governance structure with a focus on innovation and partnerships.



Theme Capacity Building Champions

- Contribute to BRC Event and Training Series, BRC Training Programme including session ideas, themes, speakers and communications
- Oversee and co-develop BRC NMAHP Experimental Medicine Placement Projects in partnership across Theme project supervisors, research and clinical areas
- Contribute and encourage Theme staff and students to co-create the BRC Experimental Training
- Passport course content and resources
- Co-develop and support Theme PhDs and Core funded PhD projects
- Act and encourage Theme staff and students to act as mentors and coaches as part of the BRC/GM NIHR Mentoring and Coaching Programme
- Inform Training Co-ordinator on Theme successes in relation to staff (inc. Core team) and student capacity building (grants, awards, oral/poster competitions, training and development)
- Share BRC, NIHR Academy, University and partner training and capacity building opportunities (all staff and students will also receive a collated monthly BRC Training Update and ad-doc opportunities)
- Act as a source of support for staff and students on in the Theme wishing to discuss or apply for training opportunities and funding. Support the development of staff and students new to research, early-mid career and senior researchers.

PPIEP Champions

- Are the primary point of contact for Vocal and Patient and Public Involvement, Engagement and Participation (PPIEP).
- Are committed to inclusive PPIEP and inclusive research.
- Are in a position of influence within the Theme e.g. to identify Theme priorities, address any issues.
- Have capacity to meet regularly with Vocal lead and project management team, and to develop and review joint plans and budgets.
- Will promote Vocal and other PPIEP training opportunities, resources and good practice to colleagues within the theme.
- Will track and report PPIEP activities within their Theme.

EDI Champions

- Support the development and implementation of an Equality, Diversity and Inclusion (EDI) strategy for the BRC in accordance with NIHR contractual requirements.
- Ensure all development activities are consistent with and supportive of the host and partner Trust's commitment to EDI.
- Embed organisational values and act as a driver for EDI through infrastructure initiatives, ensuring that effective policies and procedures are promoted.
- Support the development of and promote an open and inclusive culture within BRC.
- The BRC Core Team has a list of all leads from across the Themes – if you need contact details, please email ManchesterBRC@mft.nhs.uk

9.2 SMART Objectives

The NIHR have requested a series of short, medium and long term SMART objectives for the BRC as an infrastructure and also for each Theme. Themes have developed objectives at a Programme level and the expectation is that Theme projects will contribute towards delivery of the Programme level objectives.

Theme objectives will be tracked and monitored within the Themes and escalated as required to Cluster Boards and the BRC Strategic Executive. BRC level objectives will be tracked and monitored at BRC Strategic Executive and reports presented to BRC Governance Board and the NIHR as required. Funding will be prioritised and deprioritised depending on delivery against SMART objectives.



9.3 Budget Management

Each Theme and area has an allocated budget to support delivery of objectives. Money is allocated on a yearly basis and underspend cannot be carried into the next financial year. Therefore, regular monitoring of the budget with relevant Trust and University finances teams is required and the Core Team will request regular updates on this, especially regarding plans for management of any identified over or underspend. Responsibility for management of the budget is with the Theme/Area Leads and their teams.

BCR grant reference number: NIHR203308



The BRC contract is held by the host organisation Manchester University NHS Foundation Trust (MFT) in partnership with The University of Manchester. Partnership Agreements are set up with: The University of Manchester (UoM), Northern Care Alliance NHS Foundation Trust (NCA), Greater Manchester Mental Health NHS Foundation Trust (GMMH), Blackpool Teaching Hospitals NHS Foundation Trust, Lancashire Teaching Hospitals NHS Foundation Trust (LTHFT) and The Christie NHS Foundation Trust.

As per the contract, the total funding for the year will be paid from NIHR to MFT who will then subcontract funding to the partner organisations as per an agreed payment schedule.

If funding allocated to one organisation is identified as needing to be used in a different organisation, a variation to contract will need to be made in order to amend the payment schedule. These will be carried out across the BRC once a year where necessary and managed via the core team.

All funding awarded within the financial year must be fully spent. Any unused funding cannot be moved into the next financial year, unless through a formal reprofile with the agreement of NIHR. For this BRC beginning on the 1st December 2022 and finishing on 31st March 2028, the funding will be awarded in the following financial years:

Financial Years:



There are NIHR financial terms and conditions that need to be followed when spending Theme budgets which limits some spend, such as a £5k limit on pieces of equipment and to only fund short-term biosample storage, and fully restrict others, such as not funding animal research. It must also be noted that BRC budget cannot be simply transferred to other accounts and can only be used for actual spend on salary or non-pay goods and services that have taken place within that financial year. Spend from other accounts can be journalized to use BRC funding where this is appropriate and justified. Please discuss any expenditure with Theme Leads and Project Managers.

A full breakdown of these T&Cs as well as the budget management processes we have in place will be shared in a separate guidance document.

Spend across the Themes and BRC infrastructure will be scrutinised internally and may be subject to audit from the NIHR. Each year as part of the annual reporting process we will also report back to NIHR on the spend across the BRC by category, i.e. Salary, equipment, consumables, open access costs etc.

9.4 Reporting Requirements

Each year we need to submit an Annual Report to NIHR.

There are several parts to this:

- ✓ **Written section for Theme and core areas** outlining operational management including changes to leadership and governance procedures as well as contributions to other sections of the report as required such as PPIEP, Industry, Capacity Building etc. **Strategic Objectives Trackers** developed by the NIHR also need to be completed to demonstrate **delivery** of objectives detailed on the original application and any challenges / mitigations that have arisen that impact the overall objective.
- ✓ **Finance and Activity Data** for each section of the report including projects, publications, external income, commercialisation and intellectual property. Note, this data is collected throughout the year from a number of sources with support from our Data Team and there is further guidance on this available which can be requested via ManchesterBRC@mft.nhs.uk
- ✓ Impact case studies demonstrate the value of research investment, and it is imperative that the evidence presented is informed, accessible and meets the needs of policymakers. We are contractually required to submit five impact stories per year within the annual reporting timescales. Additional impact case studies can also be submitted to the NIHR on an ongoing basis and teams are actively encouraged to consistently consider examples and link with the Communications Team to develop these.

We also have to produce Highlight Reports detailing progress to inform various groups, including Cluster Boards, BRC Strategic Executive, BRC Governance Board and the International Scientific Advisory Board. The content and frequency of these will vary according to the meeting but it is important that the information is provided as required and this is a contractual obligation detailed in the subcontracts with each BRC partner.

9.5 Acknowledging the NIHR in BRC outputs

Acknowledgement of NIHR support/funding in all outputs is a contractual requirement. The NIHR can check on this and impose financial penalties if the NIHR has not been correctly acknowledged in BRC outputs. We encourage all staff and students to become familiar with the BRC summary guidance which has been provided separately.



We need to ensure that publications follow the [NIHR Open access policy obligations](#).

It is important to keep your PURE research profile up to date as that is the main source for compiling publication data.

10.0 NIHR BRC Communications and Brand Guidelines

'Humanising research and innovation through storytelling'

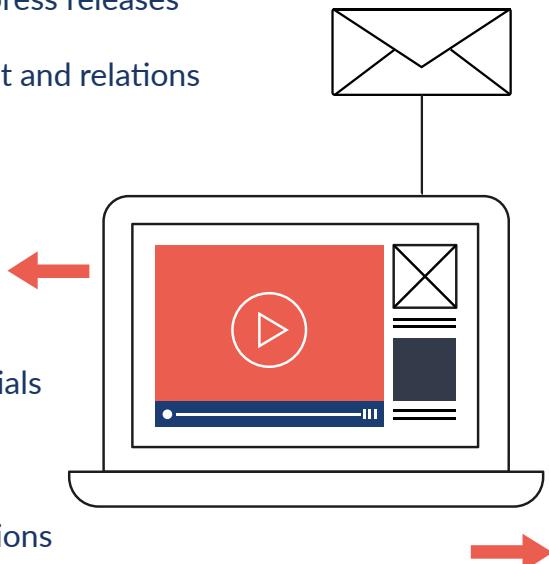
The BRC Communications Team showcase Manchester BRC's story of driving health improvements and lasting change for all to a wide audience including: staff, partners, academia, industry, regulators, government bodies, patients and the public.

Manchester BRC Communications Team

- ✓ Aligned with communications teams at all BRC partner organisations through the Manchester BRC Communications Operational Group
- ✓ Part of the Greater Manchester Research and Innovation Communications Strategy Group
- ✓ Representation on the national NHS Research & Development Forum Communications Group
- ✓ Reports to the Manchester BRC Strategic Executive
- ✓ Well-established links with NIHR and other regional and national partners

Our activity

- ✓ News stories and press releases
- ✓ Media management and relations
- ✓ Blogs
- ✓ Case studies
- ✓ Presentations
- ✓ Promotional materials
- ✓ Publications
- ✓ Videos and animations



Our channels

- ✓ [Manchester BRC website](#)
- ✓ [Manchester BRC X/Twitter](#)
- ✓ [Manchester BRC YouTube](#)
- ✓ [Manchester BRC LinkedIn](#)
- ✓ [Embed, Build, Accelerate' - Manchester BRC Director blog](#)

Please inform the Manchester BRC Communications Team of any exciting or notable BRC research or upcoming publications. Contact them as early as possible to ensure there is enough time to create wide-reaching and impactful stories to showcase your research. For example, notify them around the same time that you are preparing a publication for submission to a journal.

**Please note* We are required to send details of all media activity to the NIHR Communications Team a minimum of three working days before any journalist outreach.*

Brand Guidelines

The brand guidelines for NIHR Manchester BRC have been designed, agreed and provided by the NIHR and must be adhered to at all times.

This includes:

Naming format: **NIHR Manchester Biomedical Research Centre**. (“NIHR” and “BRC” can be abbreviated in text, however, any abbreviations should first have been defined and the abbreviation given in brackets).

✓ Descriptions of Manchester BRC.

- An acknowledgement should be incorporated within the acknowledgements section of all BRC publications – please see section 9.5: Acknowledging the NIHR in BRC outputs.

✓ Visual Identity: utilising the NIHR Manchester BRC sub-logo.

- All NIHR Manchester BRC communications and funded or supported work.
- All digital platforms and channels.
- All signage and print materials.

✓ Websites and social media .

Please contact the Manchester BRC Communications Team if you have any questions around Manchester BRC or NIHR Branding.



Further information and materials

For further information on Manchester BRC Communications and materials to download, including the full NIHR Manchester BRC brand guidelines and PowerPoint template slides, please visit the staff communications page on the [Manchester BRC website](#).

Contact Us

Communications Lead: Adam Shepphard (adam.shepphard@mft.nhs.uk)

Manchester BRC Communications Manager: Jenny Fairhurst (jenny.fairhurst1@mft.nhs.uk)

Manchester BRC Communications Officer: Sophie Henderson (sophie.henderson@mft.nhs.uk)



10.1 Impact

It is very important that Manchester BRC captures the impact of our work. Not only is this a condition of our funding, but it keeps the focus on our patients and communities at the heart of all we do.

For the NIHR, research impact is about **making a meaningful difference to people's lives** through the research it funds and supports, **making a difference to wider society and effecting meaningful change** i.e. an effect or benefit.

Capturing and reporting impact helps NIHR to:

- demonstrate value to NIHR's stakeholders, for example, government ministers and departments, the health and care system and patients and the public;
- evaluate and evidence the impact of the research the NIHR funds; and
- inform decision-making about NIHR funding processes and priorities.

Impact Types

The NIHR recommend considering the following impact types and types of evidence. Evidence can be quantitative e.g. number of patients affected, amount of money saved, number of people trained or qualitative e.g. patient testimonials, quotes from service users or public contributors, statements from policymakers.

| | |
|--------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Improved patient/ service user outcomes | Decreased time to diagnose or treat, Improved health literacy and public awareness |
| Changes in service delivery | Improved patient safety, Commissioning or decommissioning of a service, Improved patient care pathways, Improved management of a disease or condition, Improved access to services or quality of care |
| Policy influence | Influencing policy or clinical guidelines and subsequent implementation |
| Capacity, skills or workforce development | Training or skills development that fills a gap, Capacity development in under-represented professions or groups, Increased capacity and capability to respond to needs of commercial companies and/or the health and care system |
| Systems influence | Relationship building and improved collaborations and ways of working between different parts of the health and care system, including with ICB/S, Improved adoption or uptake and subsequent implementation, including through HINs, Improved operational efficiencies, Improved embedding of EDI and PPIE |
| Developing and delivering operational excellence | Developing operational excellence, Developing novel or innovative methodology, Implementation, adoption or spread of good practice regionally or nationally |
| Economic impact | Cost savings to the NHS, public health and social care, Increased revenues, Jobs created |

Table: NIHR types of impact

The nature and scope of BRC funding and type of research we deliver (experimental medicine), and the stage this is at within the delivery pipeline (early phase), mean that the intended impacts may be far down stream of our activity. Therefore we cannot always ensure that our research impacts are realised and adopted into wider use within the time frame of our funding window (5 years). We can however pro-actively identify the intended, and potential additional impacts of the research we deliver, and plan to ensure they reach these impacts through uptake by other parts of the ecosystem.

The BRC has been working with the [REF impact team from the University of Manchester \(UoM\)](#) to understand how we can better identify and track the downstream impacts of our research. We have **developed training for our research teams**, and an **impact tracker**, as a means to identify programme level impacts across the BRC themes, plus impacts for BRC strategic and core areas of activity. This will be updated on an annual basis throughout the funding cycle.

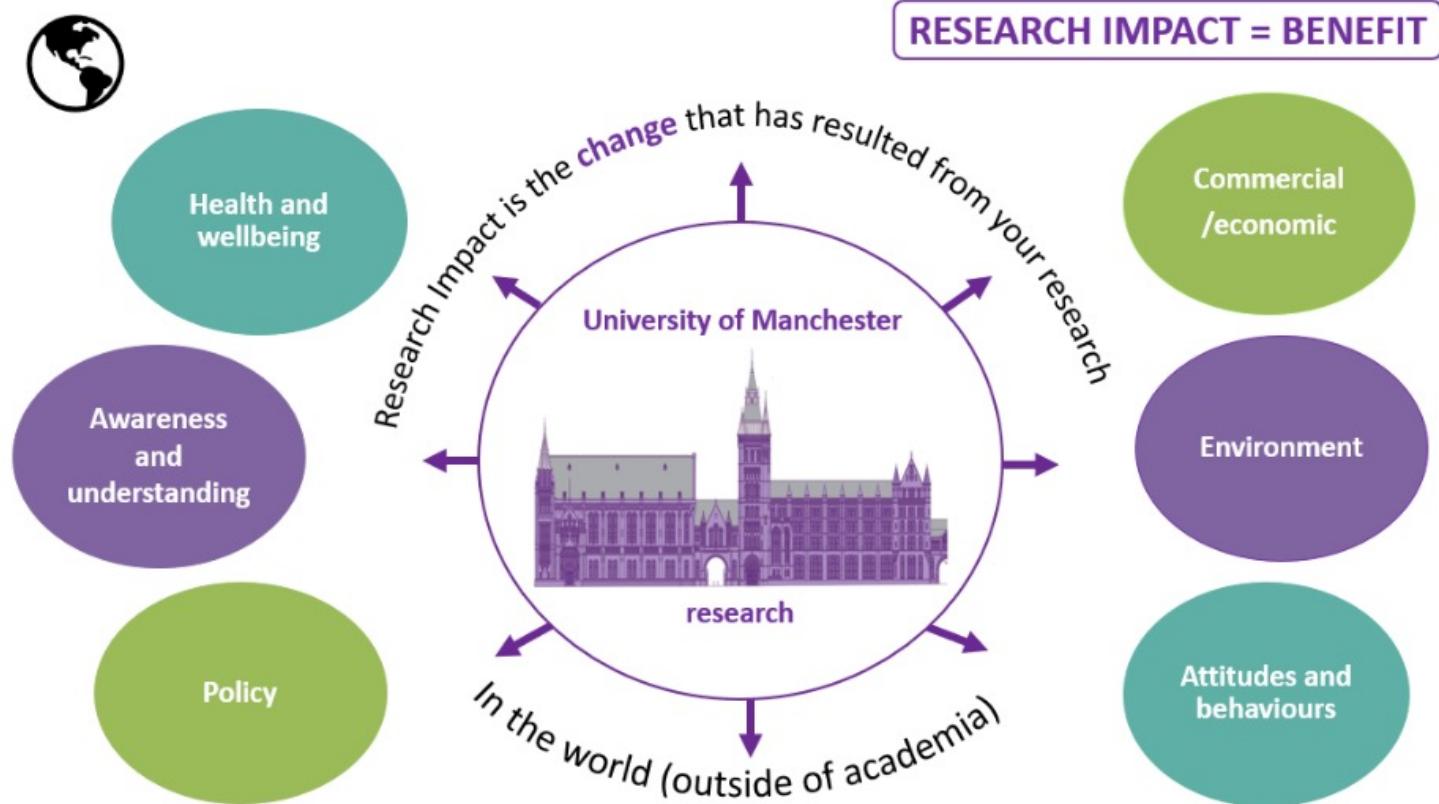
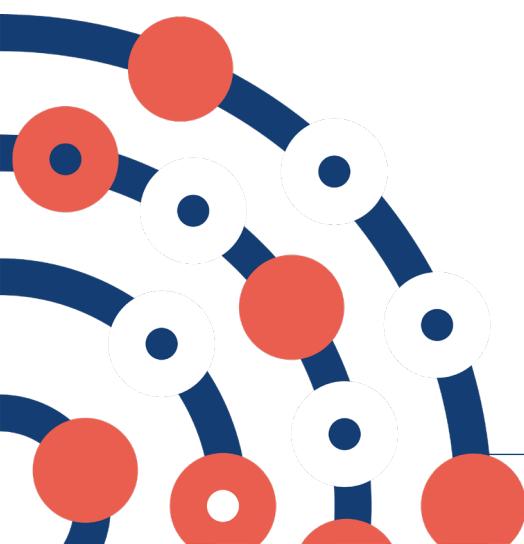


Figure: University of Manchester Impact Definitions



11.0 NIHR initiatives linked to Manchester BRC

Manchester BRC is committed to our involvement in a number of NIHR initiatives. Collaboration is key to delivering on these for the benefit of our infrastructure and our patients.

11.1 Manchester BioResource

Manchester BioResource (MBRC) is a centre that supports the NIHR Bioresource initiative. This centre actively recruits patients and healthy volunteers to participate in health research. Participants are asked to donate a blood **or saliva** sample and health data which can then be accessed by researchers to study health conditions via an approved application process. **Samples are genotyped and stored centrally with the Cambridge BioResource team.** Patients that are recruited to BioResource, also consent to be recalled for further research studies.

We are actively recruiting to 2 cohorts:

DNA – Children’s and Young Persons Health Resource work. (D – CYPHR)

Launched in 2023, this is the first of its kind initiative in the UK. Most diseases start in childhood, but most health research is carried out in adults. D-CYPHR wants to change this by supporting health research for ages 0 – 15. Children can be recruited through hospital clinics, community settings and schools.

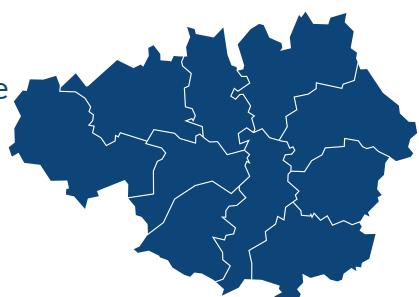


Improving Black Health Outcomes (IBHO)

This new research initiative is dedicated to studying health conditions affecting people from Black communities in the UK. The IBHO BioResource invites individuals from Black ethnic backgrounds to participate in research aimed at improving our understanding of how these conditions might develop and specifically affect those from Black communities. We are inviting people aged 16+ from those backgrounds such as Black African, Black Caribbean and Black British to participate, whether they have a health condition or not. We are also inviting people with a confirmed diagnosis of Sickle Cell or Thalassaemia to join, regardless of ethnic background.

NIHR Immune-Mediated Inflammatory Diseases (IMIDs) BioResource

Manchester BRC, in collaboration with Leeds and Newcastle BRCs, leads the IMID BioResource study (Chief Investigator: Prof Ian Bruce). Although closed to recruitment, researchers are still able to apply to use samples from the following collection cohorts:



Rare Disease Cohorts BioResource

We lead on nine rare disease cohorts:

- Neurofibromatosis Type 1 and 2 - NF1, NF2 (Evans)
- Systemic Sclerosis (Buch)
- Chromatin Disorders (joint with GSST)
- Cystic Fibrosis (joint with Royal Papworth)

- Hospital NHS Foundation Trust)
- Congenital Hyperinsulinsim
- Familial Interstitial Pneumonia
- Membranous nephropathy
- Turner's Syndrome

IBD BioResource

In the UK, over 500,000 people live with Crohn's disease or ulcerative colitis (together known as Inflammatory Bowel Disease or IBD). These conditions are characterised by debilitating abdominal symptoms and, in their severe forms, have a major adverse impact on health and quality of life.

The Inflammatory Bowel Disease (IBD) BioResource aims to:

- Find the causes of Crohn's and colitis
- Uncover factors that determine the severity of IBD or determine response to treatment
- Help to develop new treatments In Manchester, recruitment to the IBD BioResource takes place at Wythenshawe Hospital, Manchester University NHS Foundation Trust.

NIHR BioResource Research Tissue Bank (RTB)

We are looking for Clinicians and Clinical Academics who have a patient cohort they would like to recruit to the RTB, or the capacity to recruit healthy volunteers via their clinics or established research studies.

We can work with you to ensure if you recruit a patient cohort, that this is recorded on the NIHR BioResource, and so can be selected for recall.

Participation in the RTB involves a single study visit, and those who consent are asked to complete a health and lifestyle questionnaire and provide a blood sample (ideally 2 x EDTA tubes and 1 x serum tube). These will be used to biobank plasma, serum and DNA and genotyping will be undertaken on samples.

If you have any questions about the NIHR BioResource and/or if you may have a cohort of patients or healthy volunteers you wish to recruit from MFT please get in touch, and we can discuss how we can support you with recruitment.

For further information on the BioResource please contact:

Laura Crowther,
Clinical Trials Manager:
laura.crowther@mft.nhs.uk

Lynsey Priest,
BRC Project Manager:
lynsey.priest@mft.nhs.uk

11.2 NIHR Health Informatics Collaborative (NIHR HIC)

Website: [NIHR HIC](https://hic.nihr.ac.uk/)

Partnership of 31 NHS Trusts and health boards, including the 20 hosting NIHR Biomedical Research Centres (BRCs), working together to facilitate the equitable re-use of NHS data for translational research.

The NIHR HIC has established cross-site data collaborations in areas such as cardiovascular medicine, critical care, renal disease, infectious diseases, and cancer.

Manchester BRC trusts currently participate in 8 NIHR HIC themes (Cardiovascular disease/ Covid19, Hearing Health, Colorectal cancer, Transfusion dependent anaemia, Renal, Critical care, Diabetes, Viral hepatitis).

For more information see <https://hic.nihr.ac.uk/>
or email ilina.serafimova@manchester.ac.uk

11.3 NIHR Translational Research Collaborations TRCs

Website: [NIHR TRCs](#)

NIHR TRCs are collaborative groups of experts from across the UK formed via Biomedical Research Centres. TRCs act as hubs, rallying research communities across the UK. They bring together their relevant experience to tackle translational research challenges in their specific focus areas. Their role is to expedite learnings and scale up early phase clinical trials from single site to multi-site centres. Manchester, is member of all TRC's, whilst hosting the Respiratory and Musculoskeletal TRC's.

- ✓ **UK Musculoskeletal TRC** - Hosted by Manchester BRC and chaired by Prof Maya Buch, UoM hosts the Programme Manager. Maya Buch also sits on the NIHR-BHF Cardiovascular Partnership and leads a national CARDIO-IMID UK Network of over 20 centres linking cardiovascular and MSK-IMID clinicians and researchers.
- ✓ **NIHR Respiratory TRC** – Hosted by Manchester BRC and Chaired by Professor Alex Horsley. The Respiratory TRC network collaborated with and supported our COVID-19 immunology work, leading to the establishment of the CIRCO consortium and key translational papers. We have significantly inputted into to the design and delivery of the PHOSP-COVID study, with leading roles in study management plus pulmonary fibrosis biomarkers, immunology and circadian biology sub-studies.
- ✓ **NIHR-BHF Cardiovascular Partnership** – Integrative Cardiovascular and Rheumatic Musculoskeletal Diseases Themes
- ✓ **Surgical and Perioperative Care TRC** – Launched April 2025, focuses on improving research, with a focus on innovation in surgery and perioperative care, along with investing in future leaders and building capacity in early phase research.
- ✓ **NIHR Mental Health TRC** – Mental Health supporting the £10 Million Mental Health Mission Award.
- ✓ **NIHR Dementia TRC** - Hearing Health theme support this. Works collaboratively with recently launched Dementia Trials Network (DTN)
- ✓ **TRCs** in the application stage are the **Surgical and Perioperative Care** and another focusing on **Infection** and if approved will launch Autumn 2024.
- ✓ **DART** – Diet and Activity Research Translation Collaborative, an important network of BRC researchers studying nutrition and exercise. Prof Michelle Harvie is our Manchester lead.

For more information on the TRCs please contact Lynsey Priest, BRC Project Manager. Lynsey.Priest@mft.nhs.uk



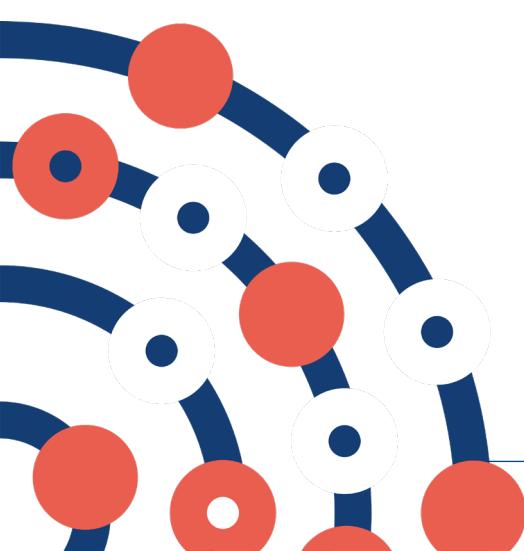
Manchester BRC was a founding member of the PRS Initiative with representation on strategic subgroups including cancer, inflammatory disease and statistical analytics.

In Manchester a Risk Prediction Group was established which brings together expertise from across the NHS Trusts and University. The aim is to build a community of academics/clinicians working in risk prediction, including disease prevention, screening and outcomes with a view to foster interaction between individuals working in this area and to facilitate collaboration on papers, supervision on relevant research projects/PhDs, and grant applications.



PRS research is critical NIHR priority area of research as it is important in the study and management complex diseases for several reasons:

- 1 Understanding Genetic Contributions across multiple disease areas** Cardiovascular, rheumatic, psychiatric disease and many cancers are influenced by multiple genetic variants each contributing a small effect. PRS aggregates the effects of many genetic variants into a single score to quantify and genetic predisposition to a disease.
- 2 Precision Medicine and Risk Stratification** Precision medicine aims to optimise medical care based on individual genetic profiles. PRS can be used to tailor prevention and treatment strategies to an individual's genetic risk. Individuals with high PRS may benefit from more frequent screenings, lifestyle modifications, or preventive medications. PRS allows for the stratification of patients into different risk categories, which can inform clinical decision-making, such as more intensive monitoring or aggressive treatment, and prioritise healthcare resources efficiently.
- 3 Early Detection and Prevention** Identifying individuals at high genetic risk before they develop symptoms can facilitate early interventions, significantly reduce the burden of complex diseases and improve patient outcomes.
- 4 Research and Drug Development** PRS research can identify new biological pathways and potential therapeutic targets. By understanding the genetic basis of disease, researchers can develop new drugs that target specific genetic factors. Additionally, PRS can be used to identify patient subgroups that might respond differently to certain treatments, thereby guiding clinical trials and drug development.



6 Reducing Health Inequalities

PRS research can help to uncover genetic factors that contribute to disease disparities among different populations. By understanding these genetic differences, public health strategies can be better designed to address and reduce health disparities. First, these data

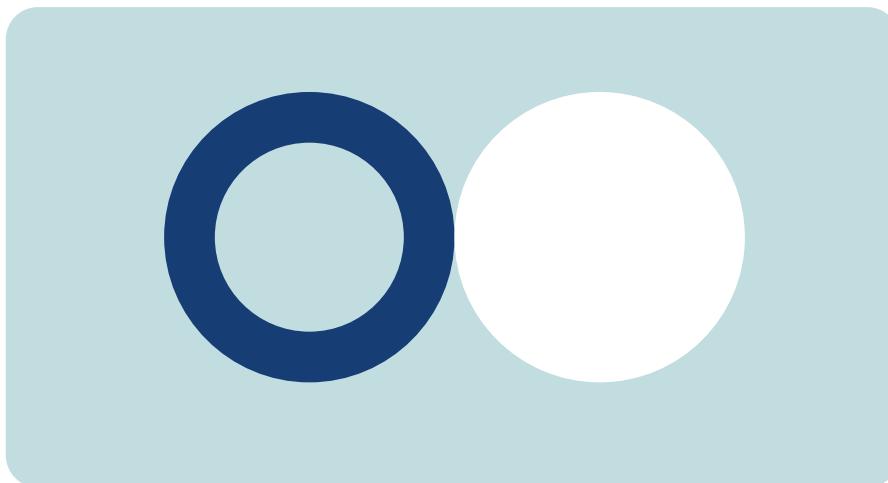
5 Enhancing Existing Predictive Models

PRS can improve the predictive power of existing models that combine genetic and non-genetic factors (such as environmental and lifestyle factors). By incorporating PRS into these models, predictions about disease risk and progression can become more accurate.

6. Reducing Health Inequalities

7 Ethical and Social Implications

Studying PRS raises important ethical and social considerations, such as genetic privacy, potential for discrimination, and psychological impacts of knowing own genetic risk.



Aims of the working group

A BRC-wide PRS working group has been established across the themes and cluster to bring together researchers who are working in this field to:

- Form novel collaborations across the BRC clusters and create joint cross-theme projects of PRS
- Disseminate current ongoing research in PRS in the BRC
- Create a forum for help and both analytical and technical expertise in PRS
- Have a repository of resources to be used by researchers across the BRC

The group meets monthly, alternating between scientific meetings of research presentations and analysis and technical related forums.

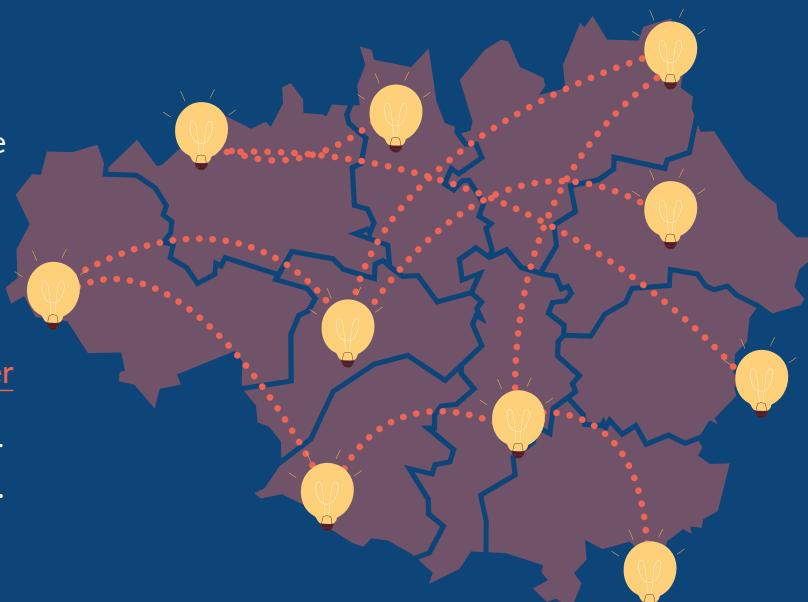
If you are interested in being part of this group, please contact

Dr Nisha Nair - Manchester-BRC RMD Theme Project Manager | nisha.nair@manchester.ac.uk

12.0 How the MBRC links in with the research landscape across GM

Manchester BRC is committed to the 'One NIHR' vision which is driven through the established Manchester NIHR R&I Oversight Board (see Figure 3). This Board is chaired by the Chief Executive Officer (CEO) of [Manchester University NHS Foundation Trust \(MFT\)](#), the Dean of the [Faculty of Biology, Medicine and Health \(FBMH\)](#) at the University of Manchester and the CEO of [The Christie NHS Foundation Trust](#) and includes [Health Innovation Manchester \(HInM\)](#) and NHS North West. It also has supported involvement of the NIHR Manchester BRC's new partners in Lancashire and Blackpool.

The Manchester NIHR R&I Oversight Board ensures Greater Manchester (GM) aligns its research and innovation potential to meet the health needs of our population and healthcare services, promotes mutually supportive strategies, avoids duplication of function and maximises outputs for all NIHR infrastructure.



Building on this we have established an NIHR Operations Leads Group (Chair: BRC Operational Director). This group shares information and best practice, identifies and promotes collaborative workstreams to maximise impact and outputs. Identified workstreams include workforce diversity, capacity building and communications. This group now includes the following operational leads:

 Chief Operating Officer
NIHR | Research Delivery Network

 Operational Director
NIHR | Manchester Biomedical Research Centre

 Operational Director
NIHR | Manchester Clinical Research Facility

 Head of Operations
NIHR | Applied Research Collaboration Greater Manchester

 Centre Manager
NIHR | Greater Manchester Patient Safety Research Collaboration

 Programme Director for Academia
Health Innovation Manchester

 Operations Lead
NIHR | HealthTech Research Centre
Emergency and acute care

12.1 GM NIHR Infrastructure

MANCHESTER BRC



KEY STRATEGIC PARTNERS



NIHR INITIATIVES LINKED TO BRC

NIHR | Health Informatics Collaborative
NIHR | BioResource
NIHR Translational Research Collaboratives

Figure 5: BRC Strategic Partnerships Landscape

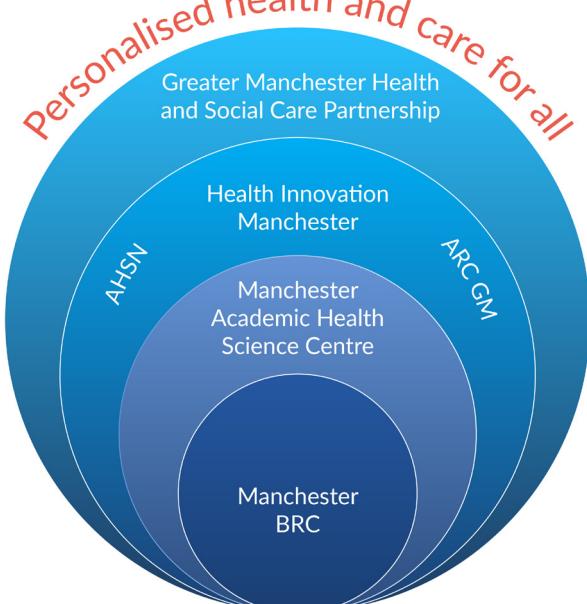


Figure 10: BRC connected across innovation

Over the next few pages we provide a summary of each part of the local NIHR infrastructure with summaries of links to the BRC.

12.2 NIHR Manchester Clinical Research Facility (MCRF) – Adult & Paediatric

Host: MFT
Partners: Christie & Northern Care Alliance

Awarded: £15.5 million 2022-2027
Website: [NIHR Manchester CRF](https://nihr.manchester.ac.uk)

Vision: MCRF is a world-class example of an integrated CRF enhancing the translation of scientific advances through EM and promoting research participation to patients of all ages and backgrounds across GM.

Strategic Aims:

1

Expand MCRF in response to the needs of GM's population and the national life science industry to expand the volume and breadth of world-class experimental medicine (EM) research as part of an integrated GM approach;

2

Increase the skills and capabilities of the workforce to safely deliver complex EM studies through provision of tailored training and educational programmes;

3

Involve patients and the public in the co-production of systems to facilitate engagement and widen opportunities to

✓ *access EM studies focussing on under-served populations.*

Manchester BRC / Manchester CRF links:

- ✓ Six dedicated EM research units at The Christie NHS Foundation Trust, Manchester Royal Infirmary (MRI), Royal Manchester Children's Hospital (RMCH), Wythenshawe Hospital and the two additional sites at North Manchester General Hospital (NMGH) and Salford Royal Hospital, part of Northern Care Alliance NHS Foundation Trust – areas with high levels of social deprivation and poor health outcomes to facilitate the participation of underserved populations.
- ✓ MCRF delivered 826 studies during last award, with 72% classified as high risk.
- ✓ 12% of all BRC studies took place in CRF including MSK studies requiring specialist facilities - ultrasound-guided synovial biopsy and Human Performance Gait Laboratory facilities (knee brace studies), plan to increase this significantly over next funding round.
- ✓ *Within the Hearing Health theme all sound-treated hearing booths/labs at the Manchester Centre for Audiology (ManCAD), University of Manchester are badged as CRF and it is the only UK CRF with a sound-treated paediatric research booth (RMCH CRF).*
- ✓ BRC and CRF will identify priority disease areas and populations for development of new jointly funded (with MBRC, R&I) clinical research fellow posts in EM and phase I/II studies in addition to joint-funded posts and initiatives across data management, communications, capacity building, industry and partnerships.

- Joint training programmes including a Master of Research in EM and supporting EM placements for Nursing, Midwifery and Allied Health Professions (NMAHPs).
- CRF strategy aligns with MAHSC domains, established and new BRC Themes (e.g. cardiovascular, next generation therapeutics, rare diseases) and the emerging prominent GM strength in mental health.
- Priority will be given to BRC studies, NIHR initiatives (e.g. TRCs, BioResource) plus MAHSC and national priorities.
- The CRF will work with the Next Generation Therapeutics Theme to develop and deliver training on novel trial design, including platform studies, umbrella and basket studies.
- BRC and CRF shared posts and functions - communications, data, PPIEP, training and industry engagement.
- BRC and CRF will build on placement scheme to offer funded placements and secondments to NMAHPs for 6-12 months facilitating the acquisition of research skills and enabling knowledge transfer across NHS clinical specialties.
- Joint EDI and PPIEP strategies.
- Joint Manchester BRC / Manchester CRF Inclusive Research Oversight Group.
- Industry team will identify the pipeline of industry sponsored studies arising from Manchester BRC, the biomedical businesses attracted to the bioscience parks in GM and the surrounding area, the UKCRF Network and our partners in the NWCRF Alliance.
- North West CRF Alliance: Manchester CRF initiated formation of the NWCRF Alliance. Through a signed MoU, NIHR CRFs at the Royal Liverpool, Alder Hey, Manchester and Lancashire are collaborating, sharing the expertise of individual sites across the region. The NWCRF Alliance also links to the NIHR National Patient Recruitment Centre in Blackpool. This collaboration will primarily focus on first in human (FIH)/ phase I trials, with the goal of increasing their delivery through the optimal use of joint capacity and clinical pharmacology expertise. We will increase the early phase skills of our workforces through staff placements and bespoke training for investigators across our joint facilities.

Lancashire CRF (NB: Lancashire is part of Manchester Biomedical Research Centre)

- Only home for experimental medicine (EM) in Lancashire and South Cumbria (L&SC) and the anticipated home for BRC collaboration trials. CRF and R&I work closely with [NIHR Blackpool PRC](#).
- LCRF's NIHR Annual Report Feedback 21/22 – Overall Green RAG Rated.
- Strong contribution to the response to Covid-19 – AGILE study included.
- 91 studies reported.
- Key achievements – recruited the first global patient to our first FiH trial, hosting our first overnight patient; delivery of GMO trials.



Designation Period: 2020-2025

Website: MAHSC

Partners: See figure below, Accountable body for MAHSC is the HInM Board.

Manchester Academic Health Science Centre

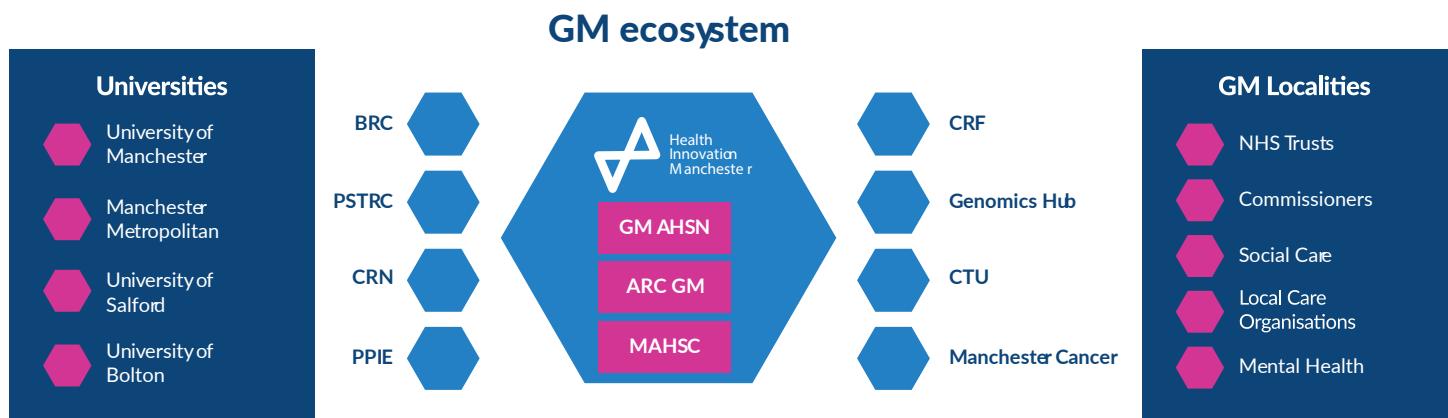


Figure 8: MAHSC & GM Partners

Key Themes: 7 domains:

(Applied Health & Care Research, Cancer, Cardiovascular and Diabetes, Inflammation and Repair, Mental Health, Neuroscience, Women and Children), each led jointly by an academic and a clinician and chaired by a CEO from partner Trusts.

The domains are supported by HInM to ensure that innovations developed within MAHSC

- ✓ Align with the health and social care priorities of GM
- ✓ Have a direct line of sight to those who ultimately commission care pathways and services for our local population, thereby accelerating research into the HInM innovation pipeline for implementation both locally and nationally.



Strategic Aims:

- 1 Doing excellent research that delivers outcomes for patients
- 2 Growing Greater Manchester healthcare strengths
- 3 Utilising clinical and social information

MAHSC Domain Accelerator projects

MAHSC is committed to supporting the HInM pipeline (Fig 9) business objective by:

- ✓ Delivering a fully populated innovation pipeline supported by NIHR infrastructure and industry with three projects per year (across all domains and linked to the BRC) entering system deployment.
- ✓ Demonstrating with at least four examples how MAHSC's managed pipeline approach reduces the timeline from discovery to deployment by 50%.

Each domain is tasked with identifying projects within their specialities and populating these on the pipeline with the MDS. Domains are also required to prioritise these projects for entry into the pipeline process of HInM.





Website: Health Innovation Manchester

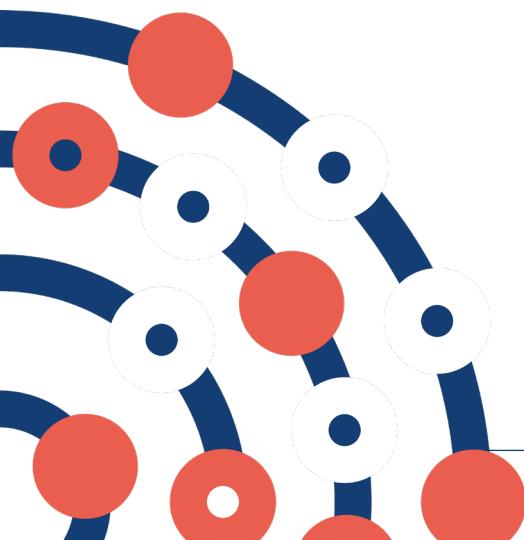
Mission: become a recognised international leader in accelerating innovation that transforms the health and wellbeing of our citizens. We work with innovators to **discover, develop and deploy** new solutions, harnessing the transformative power of health and care, industry and academia working together to address major challenges and tackle inequalities.



Strategic Objectives:

- 1** Address high priority drivers of population health by deploying proven innovations at scale, with a major focus on primary and secondary prevention.
- 2** Establish GM as a global learning market for accelerated access to novel innovations at scale.
- 3** Optimise digital and data products and services to understand the population, define their needs and develop new models and pathways.
- 4** Work with partners to enhance the GM system's capacity and capability to deliver health innovation and demonstrate impact.

The HInM Board
includes senior executive leaders from academia, health, industry and GM's civic authorities.



HInM pipeline overview

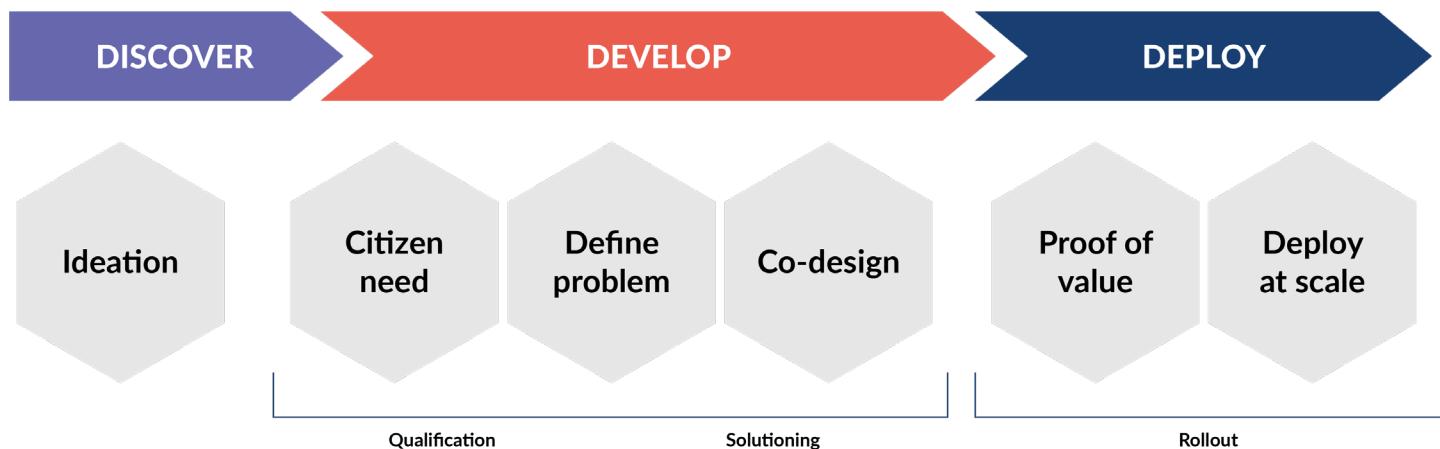


Figure 9: HInM Pipeline

A core business objective of HInM is to 'enrich and deliver an effective innovation pipeline that is prioritised to meet the needs of the citizens of Greater Manchester' by:

Curating a constant innovation pipeline sourced regionally, nationally and internationally.

Prioritising development and deployment innovations that meet the needs of GM citizens and system challenges.

Accelerating delivery of proven innovations using a rigorous method to deliver maximal benefit.

The pipeline includes processes and mechanisms by which proposals are identified, assessed, prioritised, and supported through to deployment and adoption at scale.

Following the pipeline approach taken by HInM, the 14 other Academic Health Science Networks (AHSNs) have agreed to support the development of a national approach. A standardised national minimum dataset (MDS) for the pipeline has been agreed, which captures pertinent project information. Manchester BRC will ensure the MDS fields are captured within our in-house project management system.



Host: MFT with offices at Citylabs 1.0 on the Oxford Road Campus and Liverpool Science Park

Partners: We are one of 12 Regional Research Delivery Networks (RRDNs) in England which work together, along with our Coordinating Centre, as one organisation with joint leadership. We partner with organisations across health and social care to support the delivery of research across the whole of the North West of England.

Website: <https://rdn.nihr.ac.uk/region/north-west>

Vision: The RRDNs are part of the Research Delivery Network (RDN) established on 1 October 2024, to build on the success of the Clinical Research Network (CRN). Our vision is for the UK to be a global leader in the delivery of high quality research that is inclusive, accessible, and improves health and care.

We have two primary purposes:
to support the successful delivery of high quality research, as an active partner in the research system to increase capacity and capability of the research delivery infrastructure for the future

This means research can:
reach more people
address our population needs
support the health and care system and the economy
become a routine part of care.

Key Metrics:

As a new organisation, metrics are yet to be gathered. As the largest of the 12 RRDN regions, with an estimated population of 7 million, we have the potential to support more investigators and reach more participants, to address the important health and care needs of the North West.

National Leaders from North West RRDN

National Specialty Lead for Mental Health - **Paul French**

National Specialty Lead for Musculoskeletal and Orthopaedics - **James Bluett**

National Specialty Lead for General Practice - **Greg Irving**

National Specialty Lead for Palliative Care - **Amy Gadoud**

National Settings Lead for Hospitals - **Sandip Mitra**

Pan NIHR Collaborations

We have strong links across the NIHR Infrastructure in the North West and are a member of the regional NIHR Oversight Board. We are also part of an NIHR Industry/partnerships sub-group which strengthens intelligence on local delivery opportunities and ensures strategic business objectives are aligned. We are involved in the NIHR Greater Manchester Research Training Group which aims to bring together aspiring and current NIHR award holders and those supporting them across Greater Manchester. In addition to the ARC-GM led PPIE Forum, we support a PPIE Community of Practice for Research Delivery. We are partnered with University of Central Lancashire to support the delivery of the NIHR INSIGHT Programme North West.



Research Van, funded through the Vaccine's taskforce with budget allocated through the BRC provides the opportunity to deliver BRC portfolio research studies in under serviced communities and target communities most in need.

Host: MFT (within HInM)

We work with: the Integrated Care Partnership; the universities of GM and Health and Care providers and commissioners

Awarded: : £12m NIHR funding October 2019 – March 2026 and 25% co-funding (£2.25m) from health and care organisations
Website: [ARC GM | Home \(nihr.ac.uk\)](https://arc-gm.nihr.ac.uk/)

Vision: to improve outcomes for patients and the public; improve the quality, delivery and efficiency of health and care services; and increase the sustainability of the health and care system both locally and nationally.

One of 15 ARCs across England

Key themes:



1 Healthy ageing



2 Digital health



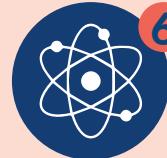
3 Mental Health



4 Organising care



5 Economic Sustainability



6 Evaluation
(cross cutting theme)



7 Implementation Science
(cross cutting theme)

with additional resources given to support Capacity Building and Public, Community Involvement and Engagement

MBRC/ARC-GM links



ARC-GM host the Greater Manchester Public and Community Involvement and Engagement (PCIE) Forum that brings together PCIE leads from across the infrastructure to share best practice and link with the Voluntary, Charity Social Enterprise Sector (VCSE).



Working with Professor Bella Starling and the Vocal team ARC-GM have set up a partnership with the VCSE sector and the other NIHR research infrastructure to strengthen our regional networks for PCIE, learning from the VCSE sector how to develop trusted relationships with communities that do not currently come forward to take part in research.



Working with BRC, CRF and CRN to review and implement the Race Equality Assessment Framework.



Capacity building team collaborates closely with the Manchester BRC, including identifying GM NIHR Academy Members' learning needs and facilitating the GM Training academy.

Total Funding: £5,016,792

Website: www.psrc-gm.nihr.ac.uk

Host: NCA NHS Foundation Trust

Our NIHR-funded collaboration is a partnership between:

- Northern Care Alliance NHS Foundation Trust
- The University of Manchester
- University of Nottingham
- University of Leicester

Our four themes:



1

Improving medication safety



2

Enhancing cultures of safety



3

Developing safer health and care systems



4

Preventing suicide and self-harm

The Greater Manchester PSRC is one of six collaborations in England (others include: Central London PSRC, Midlands PSRC, [Newcastle PSRC](#), [North West London PSRC](#), and [Yorkshire & Humber PSRC](#)).



The collaboration addresses three Strategic Patient Safety Challenges set out by NHS England:

- Effective patient safety practices
- Improving organisational patient safety culture and practice
- The patient safety impacts of alternative service delivery models

Our Aims:

- 1 We will co-develop, test, and deploy innovative patient safety interventions to demonstrably improve safety in health and care systems.
- 2 Support patients, carers, service users, health and social care professionals to use these interventions.
- 3 Evaluate the patient safety impacts of alternative ways to deliver care, including unexpected benefits and negative unintended consequences of significant service changes
- 4 Develop a diverse group of future patient safety research leaders by providing high quality training that integrates multidisciplinary expertise, patient engagement and collaboration with local, national, and international partners.
- 5 Accelerate the impact of our research through our strategic collaborations to achieve measurable, implementable, and economically sustainable improvements in patient safety, especially for those who are underserved by health and care systems.

BRC links in PSRC themes:

Darren Ashcroft and Matt Carr (LWBC, Dermatology) Medication safety , Chris Armitage (Hearing Health) – Preventing suicide and self-harm, Nav Kapur and Roger Webb (Mental Health) – Preventing suicide and self-harm, Niels Peek (Digital) – Medication safety, Caroline Sanders (Patients & Public) – Developing safer health and care systems



Manchester Experimental Cancer Medicine Centre (ECMC) part of the ECMC network (jointly funded in England by Cancer Research UK, the Little Princess Trust, the National Institute for Health and Care Research)

The Manchester Experimental Cancer Medicine Centre (ECMC), led by Professor Caroline Dive (Non-Clinical Lead) and Dr Natalie Cook (Clinical Lead), is one of the largest adult ECMCs in the pan-UK ECMC network.

Manchester ECMC is a collaboration of world-leading scientists and clinicians, bringing together experts from across the CRUK National Biomarker Centre, CRUK Manchester Institute and The Christie NHS Foundation Trust to drive the discovery, development and testing of new anti-cancer treatments and biomarkers in early phase studies and trials. It is at the forefront of early phase drug development and biomarker research with international leadership in precision medicine, advanced cell therapies and digital technology clinical trials. There is also a strong commitment to increasing equity of access to early phase oncology trials.

Manchester ECMC supports a broad portfolio of investigator-led and commercial clinical studies. Together with being the 'go to' centre for biomarker-driven experimental cancer medicine (ECM) trials, Manchester ECMC is able to offer increased opportunities for patients, alongside training the next generation of trialists and translational scientists.

Manchester ECMC is part of 'ECMC North'- a network of six northern ECMCs (Glasgow, Edinburgh, Liverpool, Belfast, Newcastle, Manchester) established to offer patients better access, closer to home to the broadest range of experimental cancer medicine clinical trials possible.

Within Manchester, there is also a Manchester paediatric ECMC led by Guy Makin.

Email:
manchesterecmc@manchester.ac.uk

Website:
www.ecmcnetwork.org.uk/manchester

12.9 Policy Research Units (PRU) (NIHR Schools).

i) Older People and Frailty PRU

- ✓ Collaboration between the UoM, Newcastle University and the London School of Economics.
- ✓ Our aims are to answer policymakers' questions and help the DHSC to make informed decisions about the lives of older people.
- ✓ Carry out research into promoting healthy ageing, the future needs of older people and the provision of high-quality, cost effective care.

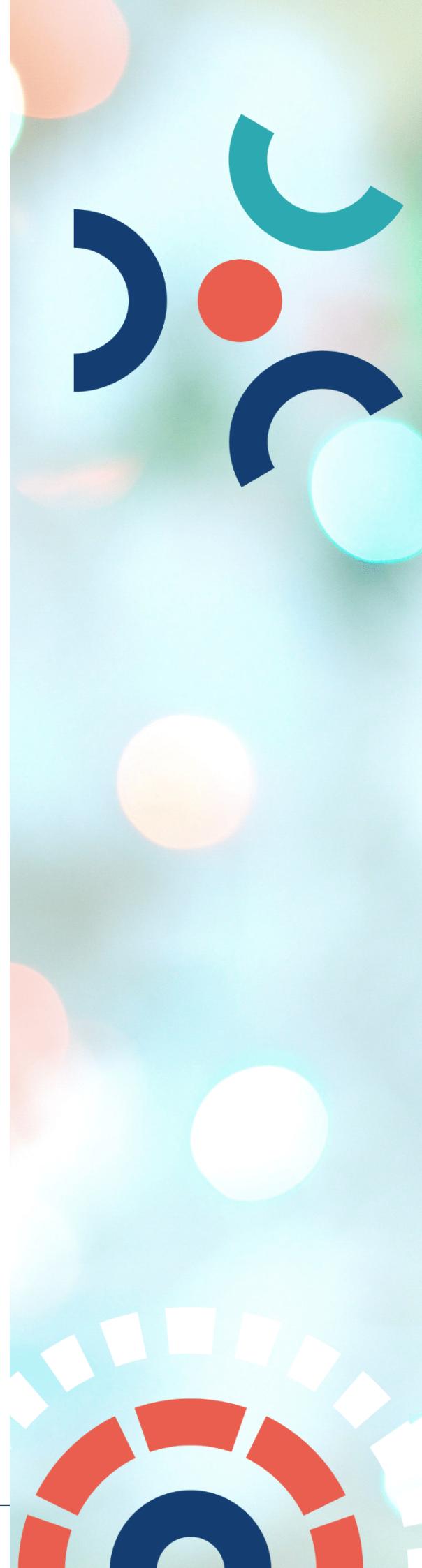
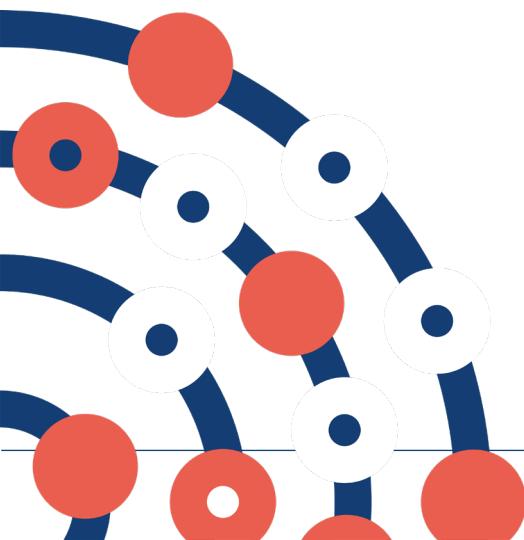
ii) Health and Social Care System and Commissioning PRU

The Centre for Primary Care and Health Services Research and [NIHR School for Primary Care Research](#)

- ✓ [NIHR School for Primary Care Research](#), a collaboration of eight leading primary care departments.
- ✓ Delivers high-quality research to inform the development of primary care.
- ✓ Disseminates and support implementation of research findings to promote the development of evidence-based primary care.
- ✓ Builds capacity in primary care research.
- ✓ Multidisciplinary and brings together staff who are GPs, psychiatrists, sociologists, psychologists, statisticians, economists and health services researchers.

iii) School for Social Care Research (SSCR)

- ✓ budget of £15 million over five years, the NIHR SSCR is a partnership between seven leading universities in adult social care research in England
- ✓ To develop the evidence base to inform and improve adult social care practice in England by commissioning and conducting internationally leading research.
- ✓ Led by Professor Catherine Robinson – already linking with qualitative research network of BRCs.
- ✓ On the NIHR oversight board, will contribute to the IROB.



Launched: June 2020

Website: [NIHR PRC Blackpool](#)



- ✓ 1 of 5 National NIHR Patient Recruitment Centres (PRCs) for Commercial Research.
- ✓ Highest recruiter across the 5 PRCs to late phase commercial clinical trials.
- ✓ Best patient research experience across the 5 PRCs.
- ✓ Global first patient for Novavax trial.
- ✓ Entered into a collaboration with LTHTr to jointly deliver a Phase 1b study within heart failure in order to broaden our expertise and we have also aligned to the North West Clinical Research Facility Alliance.

12.11 NIHR HealthTech Research Centre (HRC) in Emergency and Acute Care

Awarded : £2,998,433 (01/04/2024-31/03/2029)

Website: [NIHR HRC in Emergency and Acute Care](#)

Host: MFT

NIHR | HealthTech Research Centre
Emergency and acute care

Vision: to transform emergency and acute care by developing and deploying new technologies for the detection, diagnosis and monitoring of disease, and embedding these technologies into the way that health and care services look after patients.

There are [14 NIHR HRCs](#) across England. Each HRC has a distinct therapeutic focus.

Strategic Aims:

- 1 Build a community of practitioners with expertise to generate evidence for patients and healthcare providers for candidate innovations.
- 2 Support industry and Greater Manchester's discovery science by providing commercialisation infrastructure to rapidly and efficiently support the development of technologies into practical solutions fit for deployment.
- 3 Become an international centre of excellence for HealthTech commercialisation attracting domestic and international commercial investment to increase the pace and scale of innovation.
- 4 Increase capacity and capability by training researchers and innovators from across academia, healthcare and industry to expand knowledge and understanding in HealthTech development and commercialisation.

We have four themes divided into a Clinical Cluster and a Methodology Cluster:

1 Community care, primary care and the community-secondary care interface:

Using health care technologies in the community so that patients do not need to go to A&E for diagnosis and treatment (receiving patient-centred care in the right place).

3 Understanding the problem:

How many people are affected, what is the cost to the NHS/economy, what will the benefit be to patients (especially groups who might be more prone to certain conditions) and the NHS.

2 Secondary care:

Allowing quicker, better diagnosis in the hospital setting, ensuring patients get the right care to patients at the right time.

4 Evaluating the solution:

Clinical studies to ensure the technology is safe and effective, and statistical/economic analysis to ensure it can be used in the NHS.

These themes are underpinned by our strategies around capacity building, inclusive research, PPIE and sustainability.

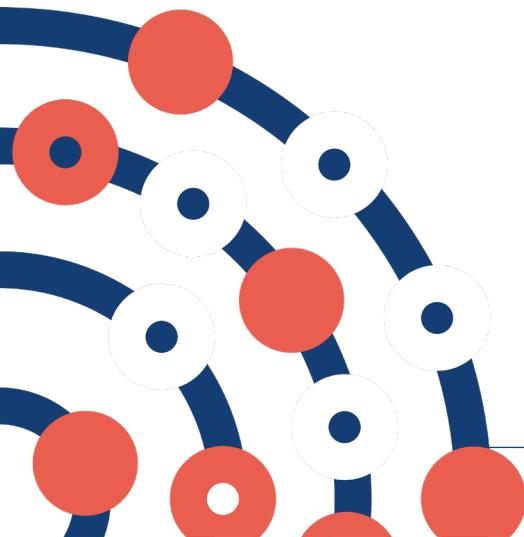
Links to the BRC

Many of the researchers involved in the HRC are also part of the BRC and can collaborate on projects that cross boundaries between the two areas. There are also joint activities, and opportunities for collaboration between the HRC and BRC around cross-cutting issues and areas of interest such as PPIE, inclusive research, and environmental sustainability.

13.0 Northern BRCs

Through the Northern BRC Alliance we promote collaborative initiatives for the benefit of all our patients and workforce. This includes collaborations across research themes alongside key priorities including capacity building and patient and public involvement, engagement and participation (including a PPIEP Memorandum Of Understanding across Northern BRCs).

The Northern BRC Operations Network (BRC Operational Director: Chair) is focused on delivering best-practice and consistency across infrastructures, sharing experience and resources and maximising outputs across the North for patient benefit and to support delivery of local, regional and national priorities.



Appendix 1: Glossary

| | |
|---------------------------------------------------------|---------------------------------------------------------------------------|
| A2E – Access to Expertise | ISAB – International Scientific Advisory Board |
| A2T – Access to Tissue | ITS – Innovator Training Scheme |
| AHSN – Academic Health Science Network | LA – Local Authority |
| ARC – Applied Research Collaborative | LTHTr – Lancashire Teaching Hospital NHS Foundation Trust |
| BRCA – Biomedical Research Centre | MAHSC – Manchester Academic Health Science Centre |
| C4T – Confidence for Translation | MAHSE – Manchester Academy Healthcare Scientist Education |
| CEO – Chief Executive Officer | MCAC – Manchester Clinical Academic Centre |
| CRF – Clinical Research Facility | MFT – Manchester Foundation Trust |
| CRN – Clinical Research Network | MRI – Manchester Royal Infirmary |
| CTU – Clinical Trials Unit | MSK – Musculoskeletal |
| DHSC – Departments of Health & Social Care | MSP – Manchester Science Park |
| DSE – Development & Skills Enhancement Awards | NCA – Northern Care Alliance |
| ECMC – Experimental Cancer Medicines Centre | NF – Neurofibromatosis |
| EDI – Equality, Diversity & Inclusivity | NHS – National Health Service |
| EM – Experimental Medicine | NHSE – NHS England |
| EPR – Electronic Patient Record | NHSI – NHS-Improvement |
| FBMH – Faculty for Biology Medicine & Health | NIHR – National Institute for Health Research |
| FY – Financial Year | NMAHP – nursing, midwifery, allied health professionals |
| GM – Greater Manchester | PhD – Post Doctorate |
| GMCA – Greater Manchester Combined Authority | PPIEP – Patient and Public Involvement, Engagement & Participation |
| GMHSCP – Greater Manchester Health & Social Care | PSRC – Patient Safety Research Collaboration |
| GMMH – Greater Manchester Mental Health Trust | R&D – Research & Development |
| HEI – Higher Educational Institute | RMD – Rheumatic & Musculoskeletal Diseases |
| HIC – Health Informatics Collaborative | SPARC – Short Placement Award for Research Collaboration |
| HInM – Health Innovation Manchester | TRC – Translational Research Collaborative |
| ICAT – Integrated Clinical Academic Training | URC – Under Researched Condition |
| IMID – Immune Mediated Inflammatory Disease | UoM – University Of Manchester |
| IP – Intellectual Property | UoMIF – University of Manchester Innovation Factory |
| IROB – Inclusive Research Oversight Board | VSA – Visiting Speaker Award |