

NIHR Manchester Biomedical Research Centre (BRC)



Induction Booklet



2023/24

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 Research Clusters & Research Themes	P. 11-12
5.0 Children's Research and links to BRC	P. 14-15
6.0 Inclusive Research Infrastructure	P. 16-17
6.1 Inclusive Research Oversight Board (IROB)	P. 16
6.2 Equality, Diversity & Inclusion (EDI)	P. 16
6.3 Patient & Public Involvement, Engagement & Participation (PPIEP)	P. 17
7.0 Strategic Core Delivery	P. 18-30
7.1 Digital Infrastructure	P. 18-19
7.2 Innovation & Partnerships	P. 20
7.3 Capacity Building, Training & Opportunities	P. 21-27
7.3.1 NIHR Programme Overviews Awards & Fellowships	P. 28-29
7.3.2 Career Development Training	P. 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



11.0 NIHR initiatives linked to Manchester BRC	P. 41-43
11.1 NIHR BioResource	P. 41
11.2 NIHR Health Informatics Collaborative (NIHR HIC)	P. 42
11.3 NIHR Translational Research Collaborations	P. 43
11.4 NIHR Polygenic Risk Scores Initiative	P. 43
12.0 How the MBRC links in with the research landscape across GM	P. 44-57
12.1 GM NIHR Infrastructure	P. 45
12.2 NIHR Manchester Clinical Research Facility (MCRF) – Adult & Paediatric	P. 46-47
12.3 Manchester Academic Health Science Centre (MAHSC)	P. 48-49
12.4 Academic Health Science Network (AHSN) – Health Innovation Manchester (HInM)	P. 50-51
12.5 NIHR Local Clinical Research Network (LCRN)-Greater Manchester	P.52
12.6 NIHR Applied Research Collaborative-Greater Manchester (ARC-GM)	P.53
12.7 NIHR Greater Manchester Patient Safety Research Collaboration (PSRC)	P.54
12.8 NIHR Manchester Experimental Cancer Medicine Centre (ECMC) Network....	P.55
12.9 Policy Research Units (PRU) (NIHR Schools)	P.55
12.10 NIHR Patient Recruitment Centre	P.57
(Blackpool Teaching Hospitals NHS Foundation Trust)	
Appendix 1 Glossary	P.58





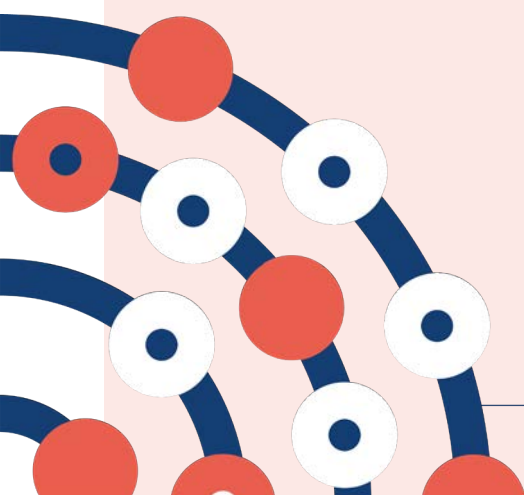
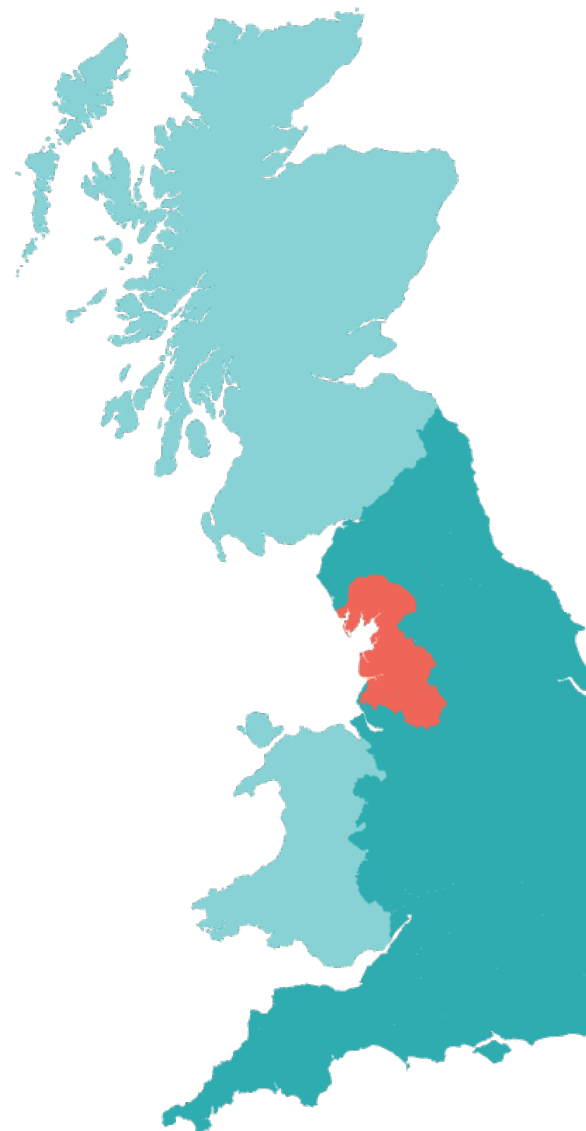
NIHR | Manchester Biomedical Research Centre

Welcome from Professor Ian Bruce, Director of NIHR Manchester BRC

This booklet provides all NIHR Manchester BRC funded and affiliated workforce and students with a high-level introduction to the Manchester BRC, including key contacts and useful information, with relevant links provided where possible. 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.

Our new BRC (2022-2027) has been awarded over £60 million - more than double our 2017-2022 award.

Over the next five years, our new funding – the largest single research award given by the National Institute for Health and Care Research (NIHR) to the city region – 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](#) look forward to continuing our partnership with [The University of Manchester \(UoM\)](#), [The Christie NHS Foundation Trust](#) and the [Northern Care Alliance NHS Foundation Trust](#), and are also pleased to welcome our new partners into the BRC; [Greater Manchester Mental Health NHS Foundation Trust](#), [Lancashire Teaching Hospitals NHS Foundation Trust](#), and [Blackpool Teaching Hospitals NHS Foundation Trust](#). This award allows us to expand our research capacity both in terms of new research themes but also by expanding our geographical reach from Greater Manchester into Lancashire and 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. Collaborating with scientific teams locally, nationally and internationally, healthcare staff, charities, industry, patients and communities, we will carefully and thoroughly appraise what difference our BRC makes to health, and to the lives of the people we serve. This way of working will bring about quick and effective translation of our discoveries into healthcare and create a region with the collective power to effectively carry out and rapidly adopt research. .

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

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

Professor Ian N Bruce
(BRC Director)



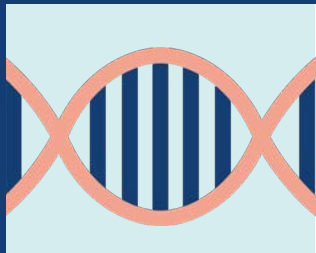
A handwritten signature in black ink that reads "Ian Bruce". The signature is written in a cursive, flowing style.

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.

BRCs receive substantial levels of sustained funding over five years to create an environment where experimental medicine can thrive. BRC funding supports researchers of the highest calibre to develop innovative research ideas and world-leading research outputs that can attract further investment and contribute to the local and national economy.



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	2022-2027
Musculoskeletal Biomedical Research Unit	Seven theme (+ Three cross cutting theme) BRC	Thirteen theme BRC
£5.5m	£28.5m	£60.4m

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 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

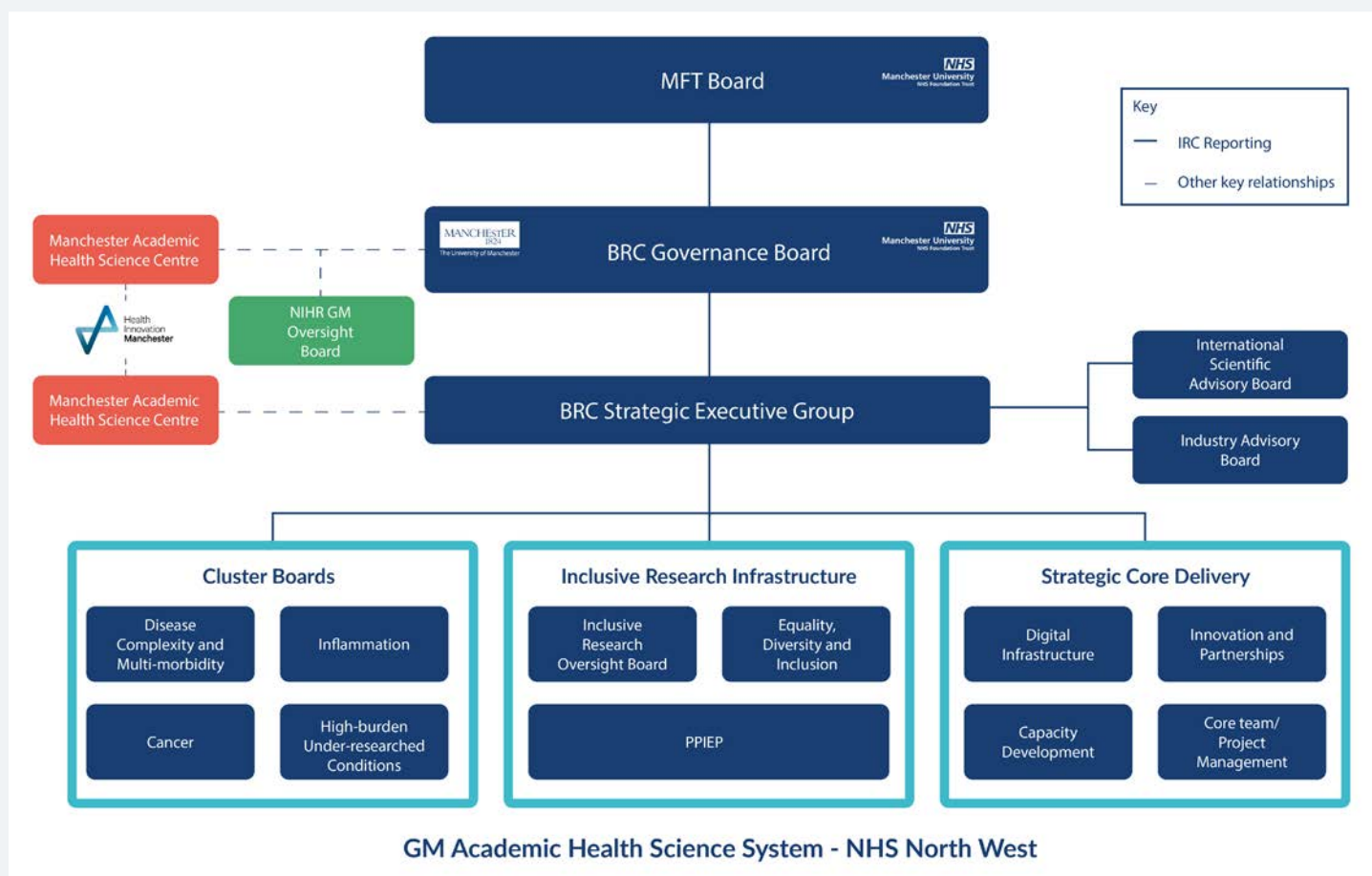


Figure 3: BRC Governance Structure

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 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, [Health Innovation Manchester](#), 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), Greater Manchester NIHR infrastructure leadership, Leads for our Strategic Core Delivery areas (Fig 4) as well as public representatives, digital infrastructure, communications, children/young adults and our Inclusive Research infrastructure (see Table 1).

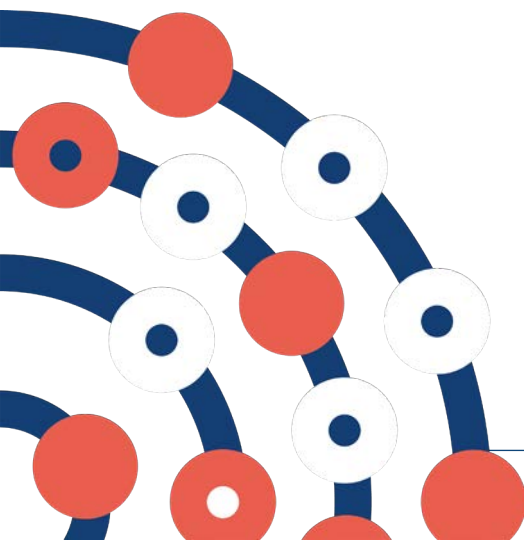
The BRC Operational Director oversees the delivery of BRC core infrastructure workstreams, working within a specialised core team (see section 8.2) across themes and key strategic areas. The BRC Operational Management Team is responsible for managing the BRC Governance arrangements.

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 will 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 will have regular meetings chaired by the Theme Lead and attended by Programme Leads, Theme Manager and relevant strategic areas 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 (24 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](#), will form part of our ISAB and brings commercial expertise from across the global health and digital sectors.



4.3 BRC Research 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 collaborate in **four Clusters** to maximise cohesion and encompass a wider geographical reach and mission.

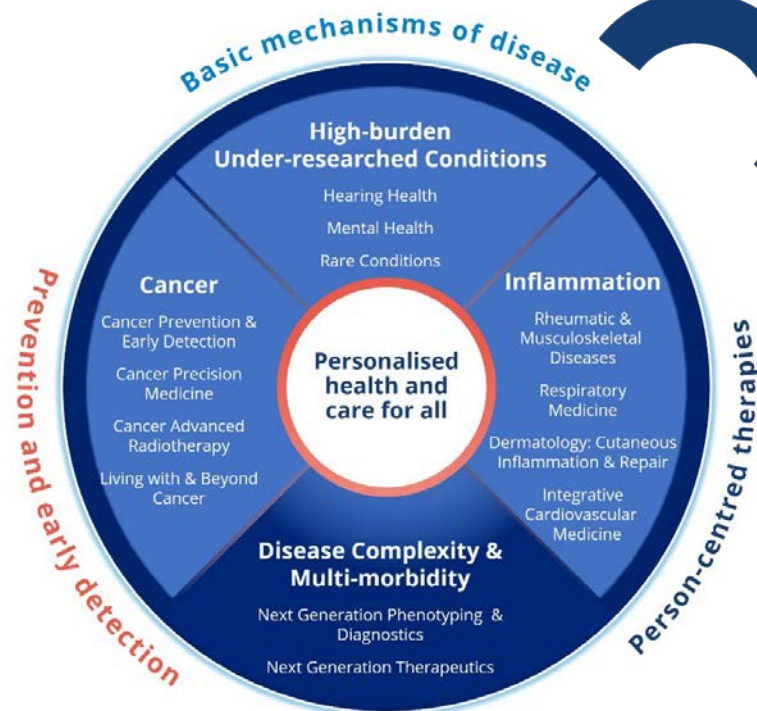


Figure 4: BRC Research Themes



Disease Complexity and Multi-Morbidity Cluster	Inflammation Cluster	Cancer Cluster	High-Burden Under-Researched Condition Cluster
<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: Professor Anne Barton Anne.Barton@manchester.ac.uk</p> <p>Cluster Manager: Zoe Talks Zoe.Talks@mft.nhs.uk</p>	<p>Cluster Lead: Professor Emma Crosbie Emma.Crosbie@manchester.ac.uk</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>Next Generation Phenotyping & Diagnostics</p> <p>Leads: Rachel Lennon & Graeme Black Theme Manager: Mamoona Ahmed</p>	<p>Rheumatic & Musculoskeletal Diseases</p> <p>Leads: Anne Barton & Andrew Morris Theme Manager: Nisha Nair</p>	<p>Cancer Prevention & Early Detection</p> <p>Leads: Gareth Evans & Emma Crosbie Theme Manager: Emma Thorpe</p>	<p>Hearing Health</p> <p>Leads: Kevin Munro & Chris Plack Theme Manager: Cath Wright</p>
<p>Next Generation Therapeutics</p> <p>Leads: Maya Buch & Julie Gough Theme Manager: Mamoona Ahmed</p>	<p>Respiratory Medicine</p> <p>Leads: Angela Simpson & Jacky Smith Theme Manager: Zoe Talks</p>	<p>Cancer Precision Medicine</p> <p>Leads: Caroline Dive & Fiona Blackhall Theme Manager: Ekram Aidaros-Talbot</p>	<p>Mental Health</p> <p>Leads: Gillian Haddock & Shon Lewis Theme Manager: TBC</p>
	<p>Dermatology: Cutaneous Inflammation & Repair</p> <p>Leads: Richard Warren & Jo Dumville Theme Manager: Kate Kuyt</p>	<p>Cancer Advanced Radiotherapy</p> <p>Leads: Tim Illidge & Ananya Choudhury Theme Manager: Lois Gardner</p>	<p>Rare Conditions</p> <p>Leads: Bill Newman & Sid Banka Theme Manager: Rachel James</p>
	<p>Integrative Cardiovascular Medicine</p> <p>Leads: Bernard Keavney & Maciej Tomaszewski Theme Manager: Kate Kuyt</p>	<p>Living With and Beyond Cancer</p> <p>Leads: John Radford & Chris Miller Theme Manager: Louise James</p>	

Further information about the different research themes and projects can be found at the [Manchester BRC website](https://www.manchesterbrc.ac.uk).

Table 1: Clusters & Leads

Disease Complexity and Multi-morbidity

- ✓ Next Generation Phenotyping and Diagnostics
- ✓ Next Generation Therapeutics.



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
- ✓ Cancer Precision Medicine
- ✓ Advanced Radiotherapy
- ✓ Living with and Beyond Cancer.



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 • 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 • 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](#).



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



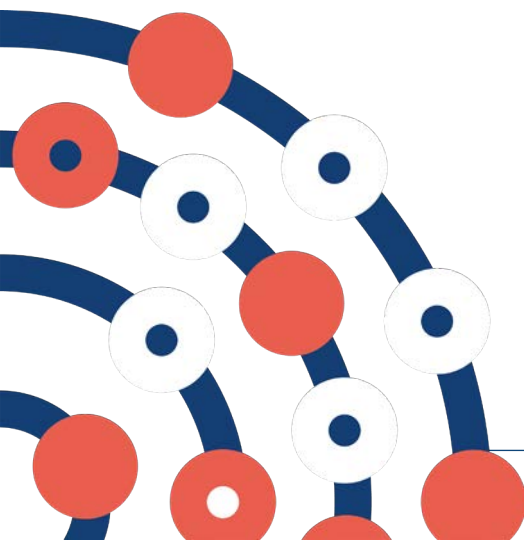
Vision: To provide the highest quality of clinical care with research in the prevention of ill health, early and rapid diagnosis, improvement clinical management and health outcomes



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.



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:

indi.banerjee@mft.nhs.uk. Professor Indi Banerjee is a Consultant Paediatric Endocrinologist and a member of the Manchester BRC Strategic Executive.

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 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 health, methodologists and Greater Manchester Health and Social Care Partnership (GMHSCP). Patient and public voices from across our diverse region co-produced our vision and aims and are embedded into our scientific and governance structures. We will bring people and place into the heart of our research so that it is better delivered, more informed and serves diverse communities, including those considered as disadvantaged or overlooked. Through meaningful engagement, we will understand the complex and diverse experience and perspectives of our communities, promoting a more health research confident population.



To address patient need and respond with agility to changing circumstance, our academic and workforce training programmes 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. We will deliver a joint EDI Strategy with the NIHR [Manchester CRF](#) which has been submitted to the NIHR for approval on 1 June 2023 and will be available on our website soon thereafter.

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 (e.g. CRF, as PPIEP advisors for North-West Research Design Service), 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 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.

For more details on our PPIEP strategy and workplans please visit our [website](#).

For information about how Vocal can support PPIEP in your research contact: vocal@mft.nhs.uk



7.0 Strategic Core Delivery

7.1 Digital Infrastructure

Academic Lead: **Professor Niels Peek**
niels.peek@manchester.ac.uk

Head of Operations/Digital Strategy: **Ruth Norris**
ruth.norris@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/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 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

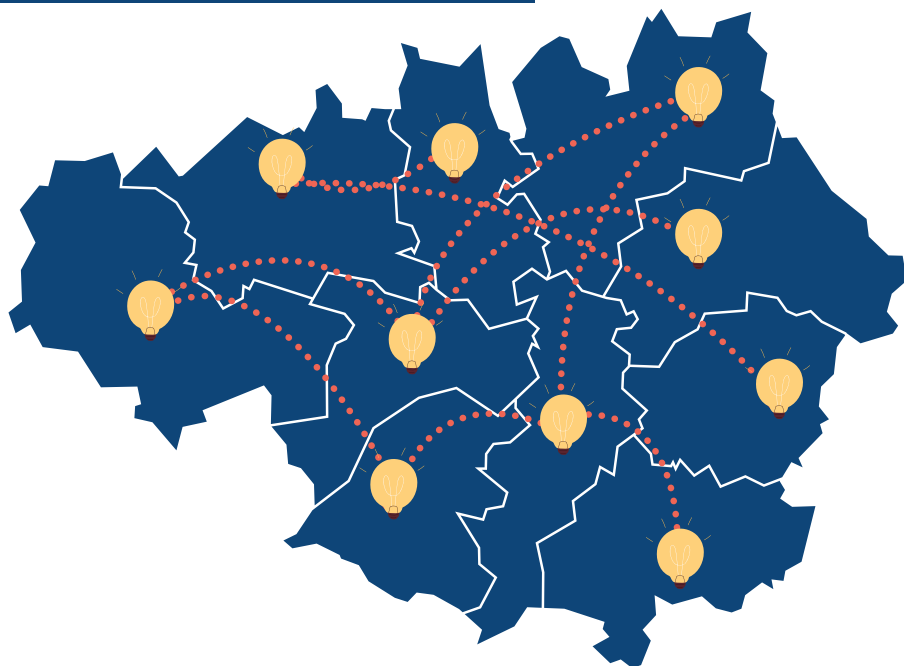
7 General: Supporting Manchester NIHR BRC researchers with information governance, data management and engineering, software development, and data analysis.

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. We anticipate the 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 form an Innovation working group.

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 Innovation Leads to identify commercial synergies and activities that could be shared and harnessed across themes and clusters.

To support invention capture, IP management and investments we have engaged [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 contacts 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 Career Development Lead
Professor Georgina (George) Moulton
georgina.moulton@manchester.ac.uk

MAHSC and BRC Training Coordinator:
Jane Crosbie
jane.crosbie@manchester.ac.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

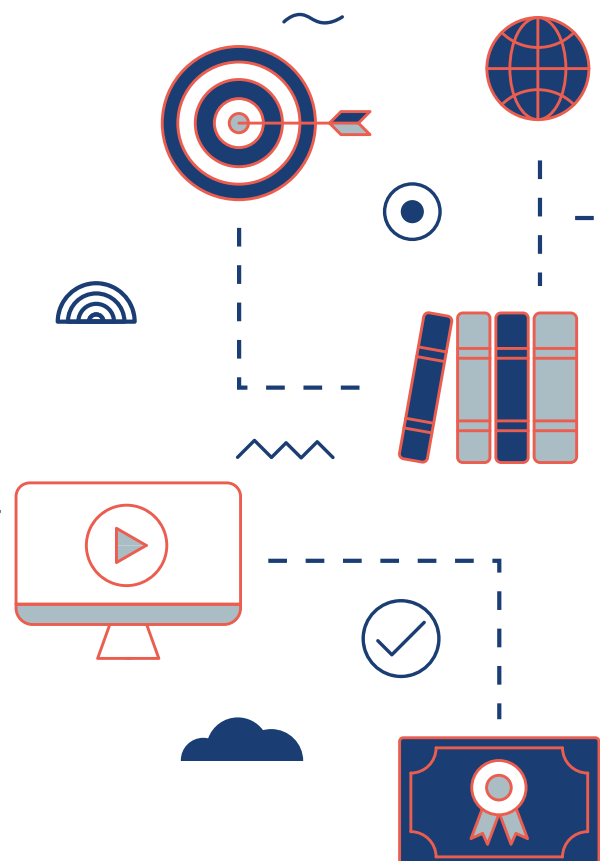
Training Communication

The BRC offers a wide range of education and training opportunities for staff and students. We recommend [you request to be added to our mailing list \(if you are not already receiving updates\)](#) and monitor the [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 website](#).

Background

The BRC comprises individuals from a range of backgrounds, for example, clinicians, allied health 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, focussing 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 will provide a series of bespoke training schemes.

Our vision for the capacity building strategy is 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 will focus on three key areas, each comprising a range of schemes and opportunities that individuals will be able to access. Throughout we will work in partnership with other groups and organisations across the local, regional and national footprint to deliver these opportunities. This will include NHS Trusts, NIHR infrastructure and industry.





1

Academic Programmes

These will be from undergraduate to postgraduate levels

A PhD programme starting in 2023 will comprise about 50 students across themes. These will be through the Doctoral Academy at The University of Manchester through the provision of staged milestones throughout the study period. In addition, there will opportunities to bring cohorts together for skills development and research showcases.

Fellowship programme will be devised in conjunction with the Faculty of Biological, Medical and Health Sciences at The UoM Fellowship Academy to support 19 clinical fellowships, mentored by NIHR Senior Investigators.

2

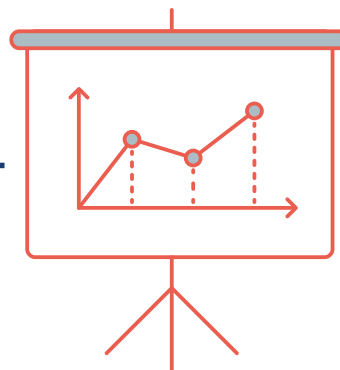
Ongoing Professional Development and Careers

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. This will be responsive to the needs of the community, and form 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.

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.

Internships/Placements provide an opportunity to develop research skills on-the-job at different stages of career, in particular, focussing on individuals with little or limited research experience. These will be tailor-made in length to suit project and researcher.

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. We will support individuals over two years for 20% of their time.



3

Networks and Communities

Event and Training series will be available throughout the five years to share research and best-practice, inform and educate, develop the community and foster cross-theme research ideas. They will 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.

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. In particular, we will focus on the development of Rising Stars, to develop the future leaders in biomedical research. These will be based other schemes such as NIHR Mentoring Scheme and University coaching and mentoring programmes, but tailored to suit our community.

```

graph TD
    BRC((BRC)) --- GMNIHR[GM NIHR Training Network]
    BRC --- NIHR[NIHR Infrastructure]
    BRC --- Fellowship[Fellowship Academy/Talent Management]
    BRC --- Academy[Academy for Education and Professional Development]
    BRC --- NIHRAcademy[NIHR Academy]
    BRC --- Faculty[Faculty Doctoral Academy]
    BRC --- HInM[HInM]
    BRC --- Other[Other GM Health effects institutes]
  
```

Figure 5: Training Infrastructure

NIHR Manchester BRC Induction Booklet 2023

23

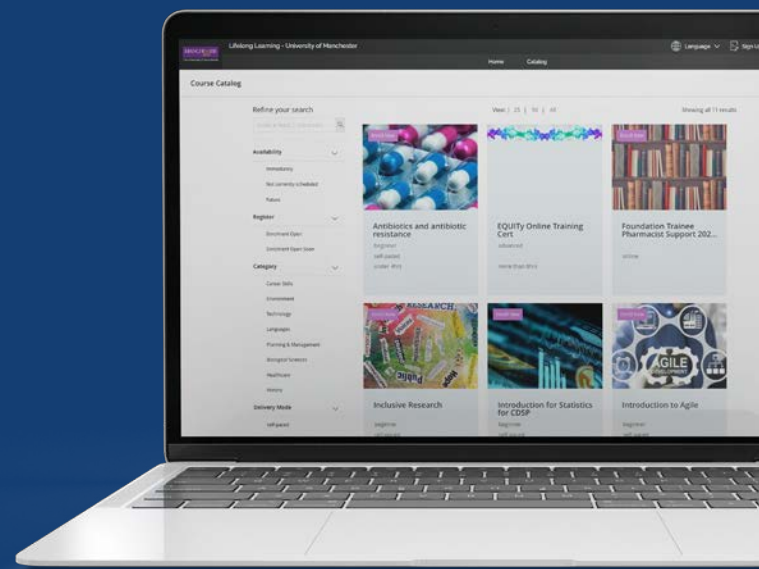
Academic programme	Professional Development	Careers & Community Building
<p>Innovative research &/or interdisciplinary training through:</p> <ul style="list-style-type: none"> • PhD & Fellows programmes • Integrated Clinical Academic Training (ICAT) 	<p>Flexible Online & F2F Training:</p> <ul style="list-style-type: none"> • Core research methods - link to QI & audit for nurses • Data Science/Informatics • Clinical Trials (e.g. Associate PI programme) <p>Flexible short-term placements for NMAHPs and others</p> <p>Clinical Research Investment Scheme for Senior Clinicians</p>	<p>Build communities across research boundaries & organisations:</p> <ul style="list-style-type: none"> • Coaching and Mentoring scheme for rising stars and Early careers researchers (peer-to-peer) • Active online communities of practice across GM and wider NIHR network • Supporting EM research for all - Team Research and Non-Academic Careers • Promotion of careers & communication of training opportunities

Table 3: Programmes & Development Opportunities

Induction Training for All

As we establish our core curriculum there is some 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** - coming soon and will be 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. Details can be found [here](#). 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](#).



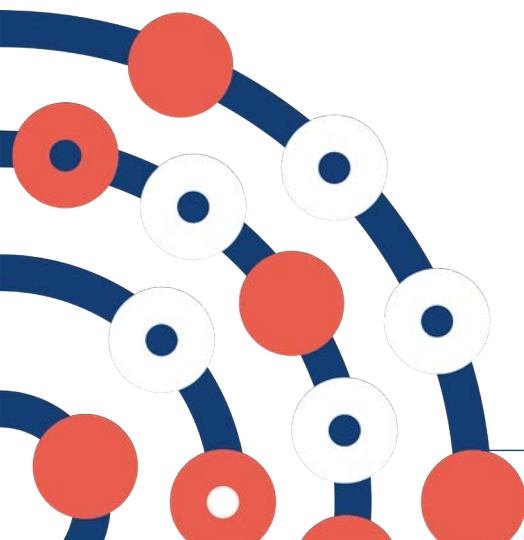
Other Training Opportunities

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 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](#).
- ✓ 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)</p> <p>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)</p> <p>Training Team https://www.gmmh.nhs.uk/training/</p>
 <p>The Health Academy Lancashire Teaching Hospitals NHS Foundation Trust</p>	<p>Lancashire Teaching Hospitals NHS Foundation Trust (LTHTr)</p> <p>The Health Academy https://healthacademy.lancsteachinghospitals.nhs.uk/</p>
 <p>Blackpool Teaching Hospitals NHS Foundation Trust</p>	<p>Blackpool Teaching Hospitals NHS Trust Foundation Trust</p> <p>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

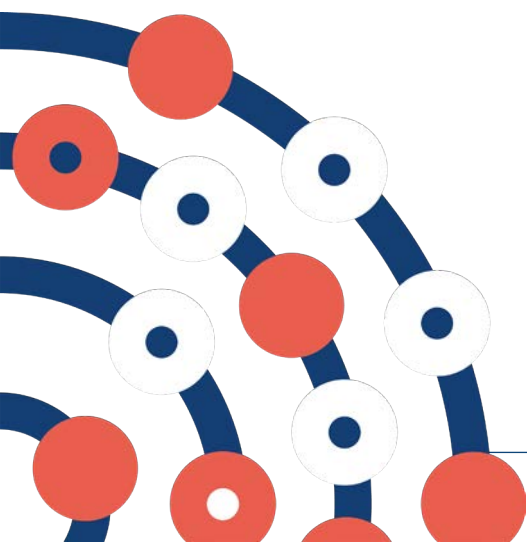
The NIHR Academy holds a variety of in-person and virtual events every year. The highlight event is the annual NIHR Academy Members' Conference that provides NIHR Academy Members the opportunity to network, hear from a variety of inspirational speakers and develop their skills in a series of workshops.



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

7.3.2 Career Development Training

Career Development Training	
<u>Incubators</u>	<p>The NIHR Incubators address areas where there is a need to build research capacity on a national level. Current NIHR Incubators include:</p> <ul style="list-style-type: none">• <u>Social Care Incubator</u>• <u>Public Health Incubator</u>• <u>Emergency Care Incubator</u>• <u>Nursing and Midwifery Incubator</u>• <u>Incubator for Mental Health Research</u>• <u>Methodology Incubator</u>• <u>Incubator for Clinical Education Research</u>• <u>Advanced Surgical Technology Incubator</u>
	
<u>NIHR Leaders Support and Development Programme</u>	<p>The NIHR Leaders Support and Development Programme seeks to maintain and improve the quality of leadership in health and social care research.</p>
Career Recognition Awards	
<u>Senior Investigators</u>	<p>Our Senior Investigators are among the most prominent and prestigious researchers funded by the NIHR and the most outstanding leaders of patient and people-based research within the NIHR research community.</p>

Table 8. Career Development Training

[Check funding opportunities for details of the latest funding rounds.](#)

For more information, see the [BRC Training website](#) or contact jane.crosbie@manchester.ac.uk

8.0 BRC Core Funding Opportunities

The BRC will be offering a range of core funding opportunities throughout the funding award timeframe across core strategic areas. These will be announced via the [BRC website](#) and communication channels.

We work closely with [Translation Manchester](#) on a range of initiatives including funding awards.

Translation Manchester was established in May 2018 as part of a Wellcome initiative to help overcome the obstacles to conducting translational research in Greater Manchester, by bringing together a [network of support](#), facilities and expertise to make the [pathway to translation](#) quicker and easier. Part of their role is to help identify the potential of a project to be translated and therefore they support projects at all points along the translational pathway, from discovery-based research projects to clinical trials.



Translation Manchester help investigators translate their research into healthcare outcomes by forging new and productive connections between academic researchers and the clinical workforce, as well as industry. Every year they run a [Translation Manchester Accelerator Award funding call](#) – consisting of two schemes - ‘Confidence for Translation (C4T)’ and ‘Access to Expertise (A2E)’ as well as providing specific funding opportunities tailored to early career researchers. Additionally, they run more tailored calls for specific translational needs such as Access to Tissue (A2T) for researchers to be able to access samples from biobanks within the [Translation Manchester Research Network](#). Please see their website for more information.

Translation Manchester also develops, facilitates and delivers training in translational research skills and bioinformatics, and recently launched a [bioinformatics support](#) service.

For the most up to date information visit the [website](#) and subscribe to their newsletter.



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 IROB.
- ✓ 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 plans, 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.

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 theme 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 added-value examples (as case studies) 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
- 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.*
- *Share BRC, NIHR Academy,*

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.

BRC 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: 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 30th November 2027, 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 journaled 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

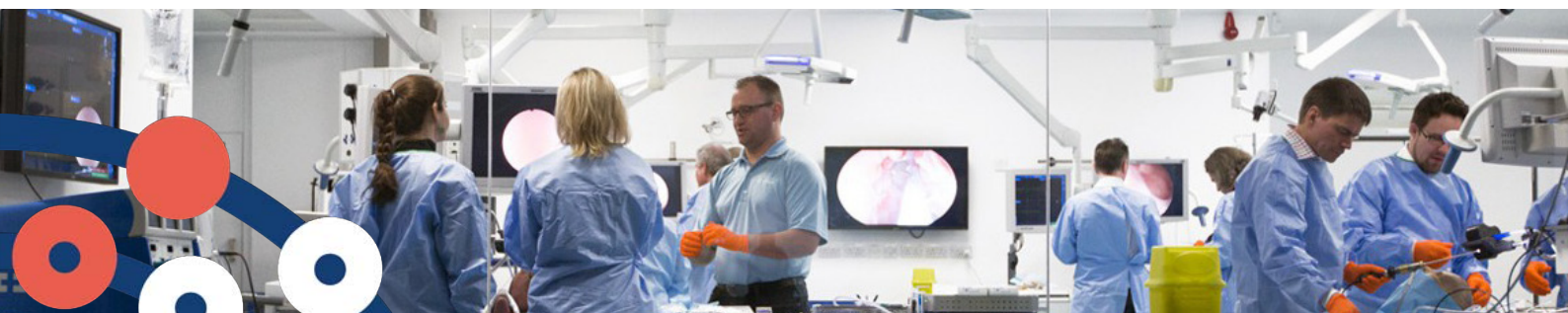
Each year we need to submit an Annual Report to NIHR. There are several parts to this:

- ✓ **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
- ✓ Suggestions for **Added Value Examples (AVEs)** are a requirement when reporting back to NIHR. AVEs need to demonstrate impact, collaboration with an emphasis on those projects that are majority funded by the BRC. Each year a minimum of five AVEs need to be reported to the NIHR (three new, two updates will be accepted). These will be written up in full with support from the communications team.

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’

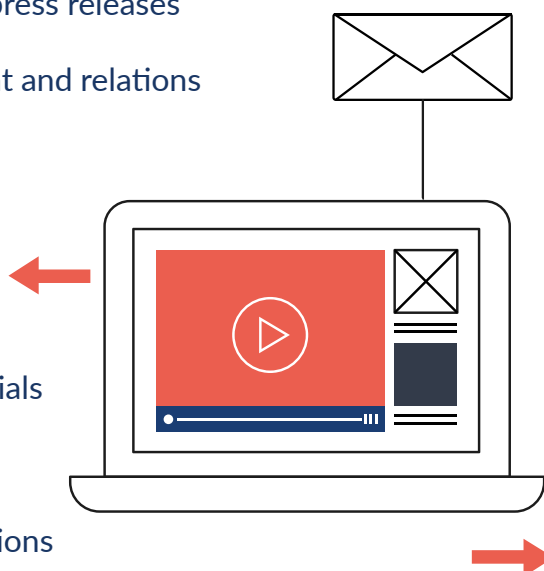
The BRC Communications Team showcase Manchester BRC’s story of driving health improvements and lasting change for all to a wide audience including: staff, partners, academia, industry, regulators, government bodies, patients and the public.

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 Twitter](#)
- ✓ [Manchester BRC YouTube](#)
- ✓ [Manchester BRC LinkedIn](#)
- ✓ [‘Bridging the Gap’ - Manchester BRC Director blog](#)
- ✓ Social Media

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 acknowledgment section.

✓ 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

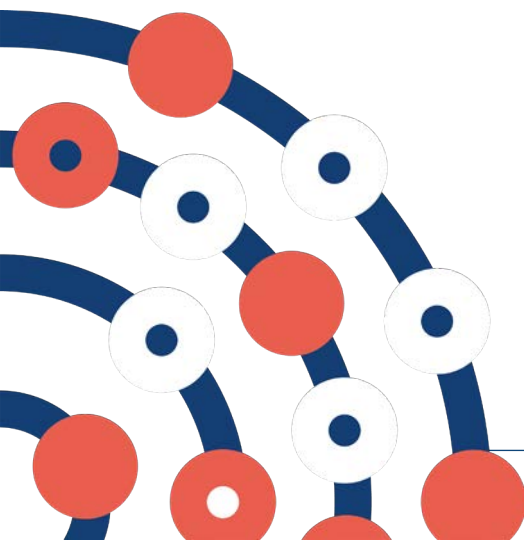
For further information on Manchester BRC Communications and materials to download, including the full NIHR Manchester BRC brand guidelines and Powerpoint template slides, please visit the staff communications page on the [Manchester BRC website](#).

Contact Us

Communications Lead: Adam Sheppard (adam.sheppard@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)



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 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:

Dr Tracy Briggs,
NIHR BioResource Lead for Manchester:
tracy.briggs@manchester.ac.uk

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

11.2 NIHR Health Informatics Collaborative (NIHR HIC)



Website: [NIHR HIC](#)

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 ruth.norris@manchester.ac.uk

11.3 NIHR Translational Research Collaborations

Website: [NIHR TRCs](#)

There are a number of TRCs (Translational Research Collaborations), working alongside a number of different Partner organisations. These are ready-formed networks of the UK's leading universities, NHS trusts and research centres which carry out early phase translational research and tackle experimental medicine challenges in selected therapeutic themes.

We plan to obtain an active involvement in all current TRCs:

Contributing funds to and participating in:

- ✓ NIHR-BHF Cardiovascular Partnership – Integrative Cardiovascular and Rheumatic Musculoskeletal Diseases Themes
- ✓ NIHR Diet and Activity Research TRC – Cancer Prevention and Early Detection, Living With and Beyond Cancer and Cardiovascular Themes
- ✓ NIHR Oncology TRC – all cancer themes, Professor Caroline Dive (Cancer Precision Medicine Theme Lead) is Chair
- ✓ NIHR Cancer and Nutrition TTRC – Cancer Prevention and Early Detection
- ✓ NIHR Dementia TRC - Hearing Health, LTHTr's CRF participate in studies
- ✓ NIHR Mental Health TRC – Mental Health
- ✓ 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 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.
- ✓ 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.
For more information on the TRCs please contact
Lynsey Priest, BRC Project Manager. Lynsey.Priest@mft.nhs.uk

11.4 NIHR Polygenic Risk Scores Initiative

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

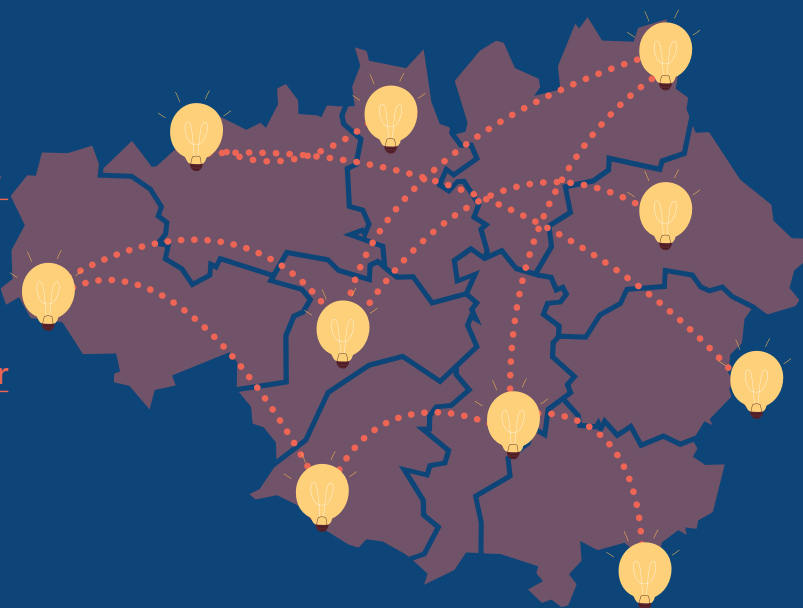
In Manchester a Risk Prediction Group was established which brings together expertise from across the NHS Trusts and University. The aim is to build a community of academics/clinicians working in risk prediction, including disease prevention, screening and outcomes with a view to foster interaction between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



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 includes the following:

 **Chief Operating Officer**
NIHR | Clinical Research Network
Greater Manchester

 **Operational Director**
NIHR | Manchester Clinical
Research Facility

 **Centre Manager**
NIHR | Greater Manchester
Patient Safety Translational
Research Centre

 **Operational Director**
NIHR | Manchester Biomedical
Research Centre

 **Head of Operations**
NIHR | Applied Research Collaboration
Greater Manchester

 **Programme Director for Academia**
 **Health
Innovation
Manchester**

12.1 GM NIHR Infrastructure

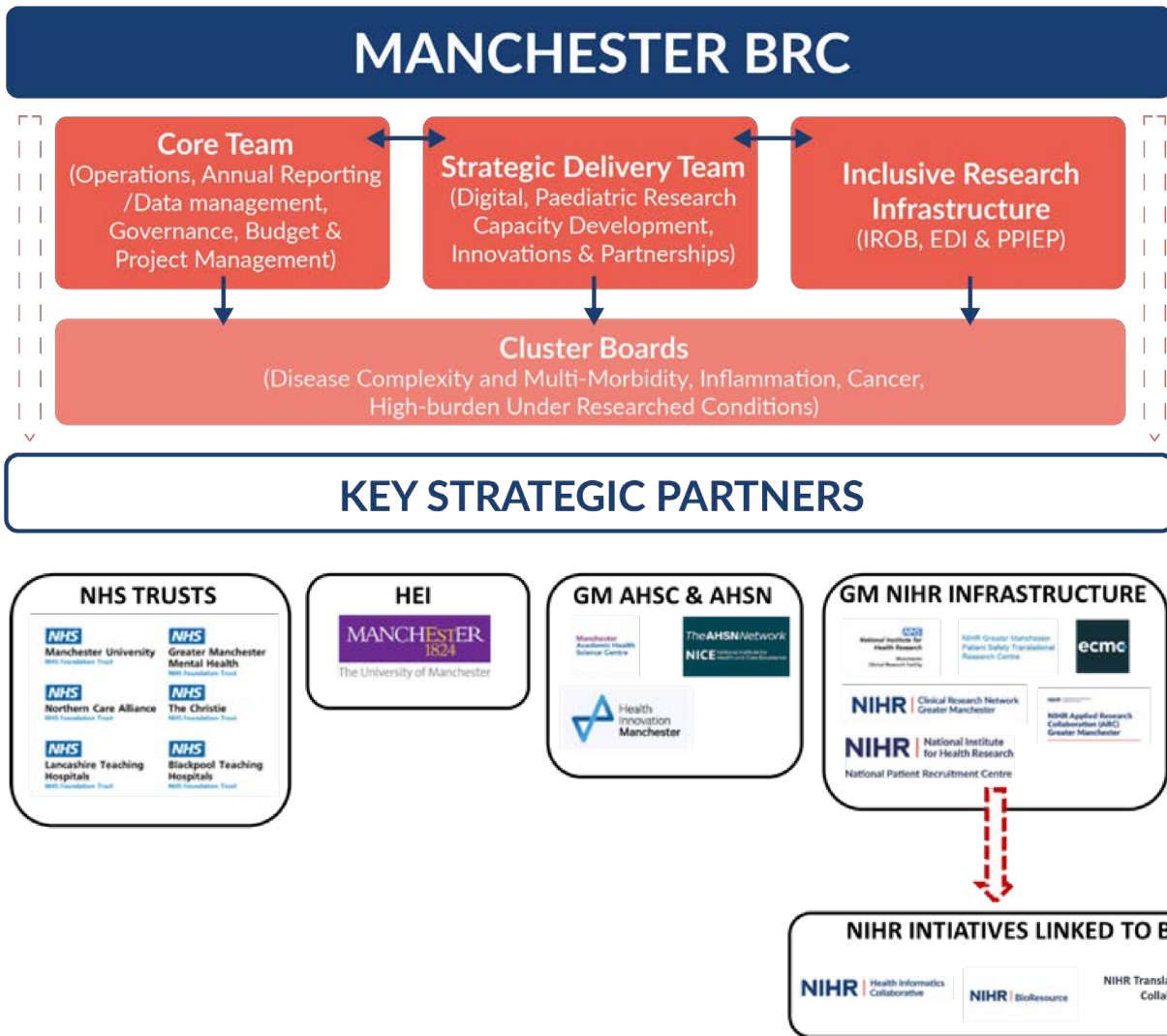


Figure 6: BRC Strategic Partnerships Landscape

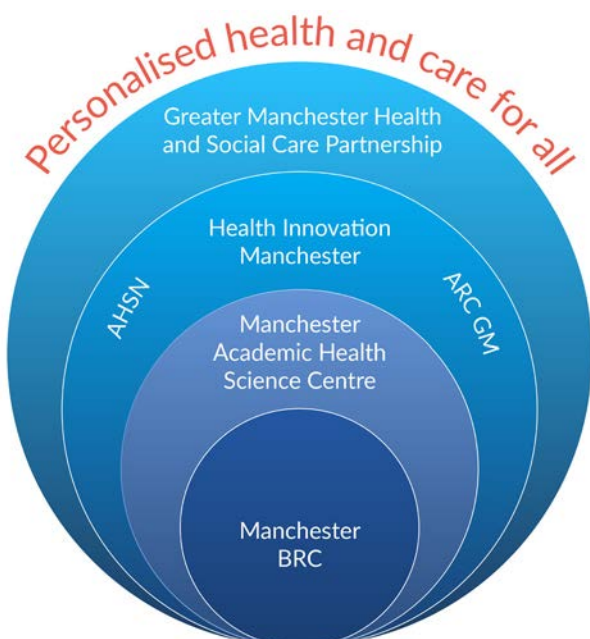


Figure 7: BRC connected across innovation

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](#)

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 an 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 specialities.
- ✔ 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 MBRC, 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: MCRF 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

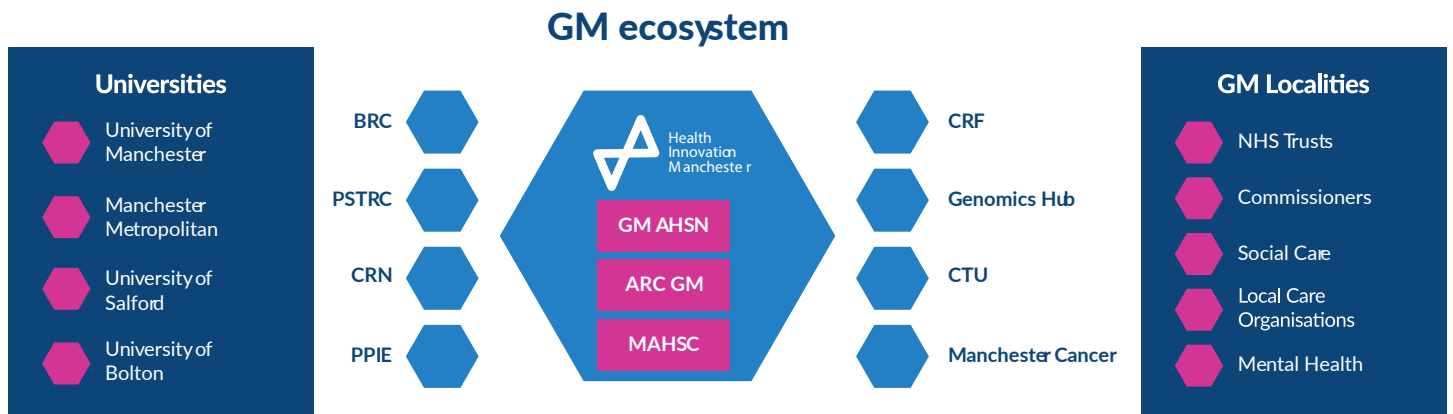


Figure 8: MAHSC & GM Partners

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 Aims:

- 1 Accelerate innovation at pace and scale** – close alignment of innovation to addressing Greater Manchester’s major health challenges, with a stronger affiliation to commissioning and service transformation to ensure maximal benefits are delivered.
- 2 Data science, pathway analysis and transformation** – Greater Manchester’s (GM) strong digital and data assets are now globally important for analysing existing pathways and supporting pathway redesign to benefit citizens and the system.
- 3 Conduct traditional trials and real-world studies** – continue to build on Greater Manchester’s excellence in recruitment to clinical trials and source opportunities to harness all of GM’s data assets to deliver real world evidence studies.
- 4 Place-based transformation** – Support localities to harness the power of digital technology to transform and regenerate local communities by addressing the many factors affecting health, wealth and wellbeing.



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

HInM pipeline overview

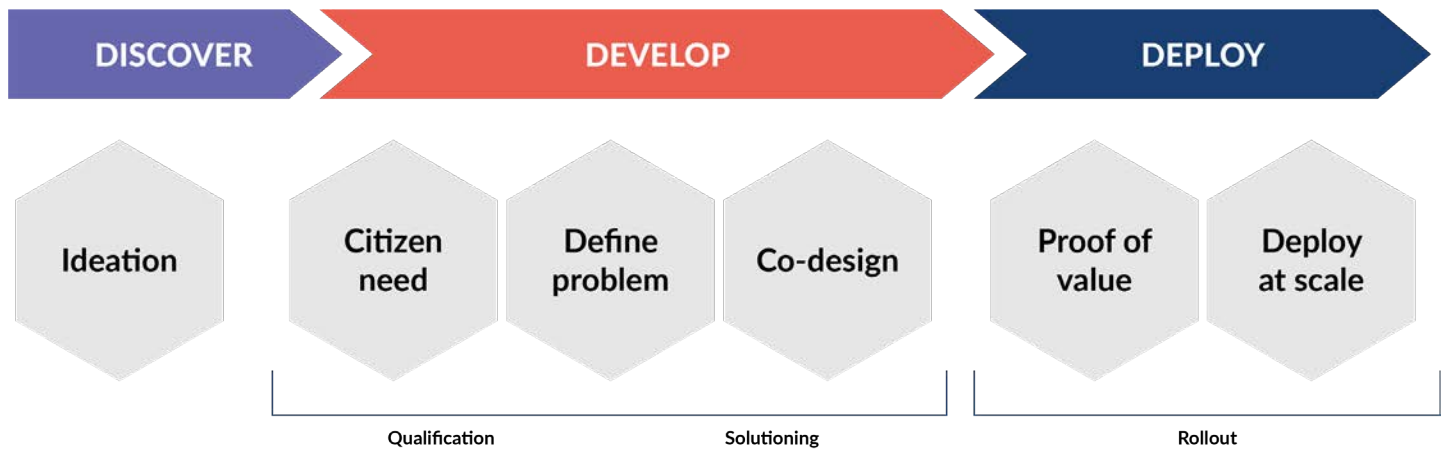


Figure 9: HInM Pipeline

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 (in CityLabs 1.0)

Partners: works across Secondary, Primary, Social and Community regional care services and provides infrastructure to Care Organisations in Greater Manchester, East Cheshire and East Lancashire

Awarded: £20m per year

Website: [NIHR CRN-GM](#)

Vision: To support the delivery of health research which improves patients' health and NHS services.

Key Metrics:

- ✓ CRN GM top in the country for commercial portfolio recruitment and time and target delivery
- ✓ 16 CRN GM Specialty areas in the top five national recruitment league tables out of 30
- ✓ Renal and Health Services Delivery CRN GM specialties are top recruiting specialties nationally
- ✓ CRN GM is 9th for population size but is currently performing in 6th place for overall national recruitment

National Leaders from Clinical Research Network Greater Manchester:

Deputy Medical Director:
Paul Dark (Respiratory Theme)

Mental Health
Kathryn Abel

Health services and delivery research
Peter Bower

Infectious Diseases
Andrew Ustianowski



MBRC/ARC-GM links

Good commercial links and previous role in Industry Advisory Groups. BRC will closely align our BRC/CRF industry and partnerships plans with the CRN industry team.

Exploring shared dashboard and data links to strengthen information and intelligence on locally delivery opportunities.

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

Host: MFT (within HInM)
Partners: UoM (Lead HEI)

Awarded: : £9m NIHR funding and a minimum of 25% co-funding from health and care organisations in GM (£2.25m) October 2019 – September 2024

Website: [NIHR ARC-GM](https://www.nihr.ac.uk/about/arc-gm)

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



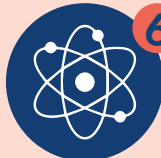
3 Mental Health



4 Organising care



5 Evaluation



6 Implementation science
(cross cutting theme)



7 Economic sustainability
(cross cutting theme)

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

MBRC/ARC-GM links

Project supported by the BRC, and ARC is the Ethnic Inequalities in COVID-19 vaccine uptake in Greater Manchester

- ✓ 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. Currently in discussion about setting up a 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

One of only three **PSRCs** in England (others include Imperial College London and the Yorkshire and Humber PSRC at Bradford Teaching Hospitals NHS Foundation Trust and University of Leeds).

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



The Manchester Experimental Cancer Medicine Centre (ECMC), led by Professor Caroline Dive (Non-Clinical Lead) and Dr Natalie Cook (Clinical Lead), is part of the ECMC Network across the UK and is a collaboration of world-leading scientists and clinicians to drive the discovery, development and testing of new anti-cancer treatments and biomarkers in early phase studies and trials.

The Manchester ECMC is at the forefront of early phase drug development with international leadership in first-in-human trials, precision medicine, advanced cell therapies, innovative trial design and digital technology clinical trials, incorporating a wide range of investigator-led and commercial studies. Manchester is a 'go to' centre for biomarker-driven experimental cancer medicine (ECM) trials, offering increased opportunities for patients alongside training the next generation of trialists and translational scientists. The Centre's ECM trials portfolio includes over 250 open studies.

Manchester ECMC is also a part of 'ECMC North'- a network of eight northern ECMCs to give patients better access to the broadest range of experimental cancer medicine clinical trials possible.

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.

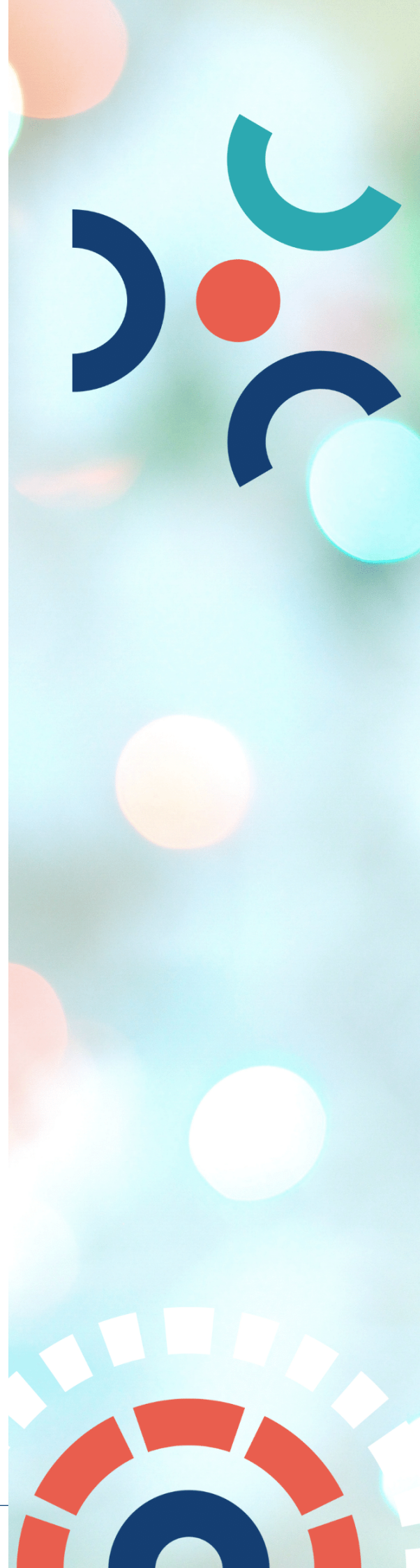
ii) Health and Social Care System and Commissioning PRU

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 LTHT^r 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.

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 deliver of local, regional and national priorities.

Appendix 1: Glossary

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