



R&D ANNUAL REPORT

2022/23

Barts Health NHS Trust - Research & Development

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EXECUTIVE SUMMARY

The Pandemic continued to have an impact on our research programmes and strategic objectives in 2022/23, as has the enormous pressures the Trust faced over the winter period. However, by implementing a programme of refreshing and re-invigorating our research activities throughout the year and adopting flexible approaches to front-line delivery, we have largely mitigated adverse impacts on our research portfolio. Although our recruitment to NIHR portfolio studies was 23% below our target, it reflects a national trend in UK patient recruitment to trials but Barts Health is still in the top ten recruiters in the UK and the highest recruiting Trust in our regional Network. The estimated total number of patients actively involved in our research studies and trials, whether in treatment modalities or tissue donation and participating in questionnaire studies is 30,000.

The Trust's research income for the year was approximately £30m exceeding its target by 4%. This is a significant result given that we are still feeling the impact of the Pandemic on our activities. Commercial income was particularly good at £11.1m, 21% above our target for the year.

On the back of our successful application for an NIHR Clinical Research Facility award, we applied and were successful, in winning a major grant from the Barts Charity to refurbish an area on the 15th floor of the Royal London Hospital, for a state-of-the-art facility that will provide a step change in our capacity to house leading-edge research and clinical trials at Barts Health. The award is for £14m and is the centre point of the Charity's 900th fundraising campaign.

The Trust was also successful in its NIHR Biomedical Research Centre Application with an award of £20.9m over the next five-year grant cycle. The previous award was for £6.2m so the award represents a threefold increase in funding, one of the best results in the UK. This award highlights our partnership with our prime collaborator, Queen Mary University of London and the strength in depth research that exists in our organisations.

Our Research Engagement team has been particularly active this year and has worked on some key national and local initiatives, attracting additional funding from the NIHR to support their work in reaching our underserved communities.

Overall our performance under difficult circumstances this year was good and both our non-commercial, largely grant-funded activity and our commercial research programmes are strong and producing excellent outcomes for our patients.



INTRODUCTION

The Trust set a challenging set of objectives for this year, taking into account the continuing impact of the Covid-19 Pandemic and the anticipated pressures that we expected to face in the coming winter period. As expected, the winter pressures were extreme and did impact our research activities. For example, the Clinical Research Facility at the Royal London was closed for much of the year and handed over to our Renal colleagues to help them manage their dialysis patients. By making flexible use of our facilities at Whipps Cross and other research spaces in the Trust and Queen Mary, the impact was to a degree mitigated. Overall our performance under difficult circumstances this year was good and both our non-commercial, largely grant-funded activity and commercial research programmes are in a strong position and producing excellent outcomes for our patients.

Again this year we have selected a few research impact stories that help illustrate the type of leading-edge research the Trust is conducting. This represents only a small sample of the many research projects, in a wide range of specialties, that our patients have access to.



Welcome to the Joint Research Management Office (JRMO) for Barts Health NHS Trust and Queen Mary University of London.

Our role is to support our academics and clinicians, and those who work with them across our sites, helping them to conduct world-class research.

- To find out more about the JRMO and its services please use the navigation bar above or click on one of the boxes below.
- If you have any questions or comments about this website please contact its editor, Nick Good: nicholas.good@nhs.net

Using patient information in research

For more information on how patient information can be used for research purposes please visit the Health Research Authority (HRA) website or see information on data protection, including the General Data Protection Regulation (GDPR), on this website.



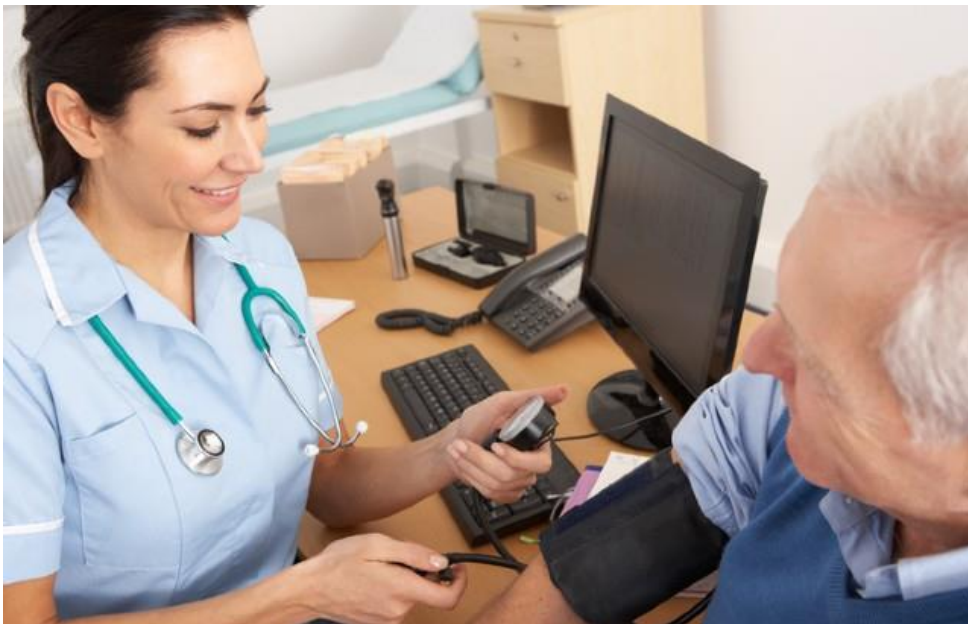
RESEARCH IMPACT STORIES

Trial of world's first long-acting injection for high blood pressure

Researchers at Barts Health have been trialling an investigational medication for high blood pressure (hypertension) since spring 2022. The medication, Zilebesiran, is injected every 6 months under supervision. This is a world-first first and could change how high blood pressure is treated.

Barts Health is the lead site for the NIHR-funded trial that will run for about three years led by Dr Manish Saxena. Untreated, high blood pressure considerably increases the risk of heart attacks and strokes. It is one of the most common conditions among adults in the UK. Roughly a third of adults suffer from it in the UK. Key risk factors include being overweight, a poor diet with excess salt and not enough fruit and vegetables, along with smoking and a lack of exercise.

Providing a wider choice of treatment options to patients will be beneficial as half of people with high blood pressure are not diagnosed or receiving treatment, according to the British Heart Foundation.



Nasal spray can prevent Covid-19

Results from a clinical trial led by Barts Health and Queen Mary showed that a nasal spray (pHOXWELL) can reduce infection with SARS-CoV-2 (the virus that causes Covid-19) by 62%.

After 45 days use 13% of those in the group that used it had antibodies against the Covid-19 virus, compared to 35% in the group who received the placebo. Using pHOXWELL dramatically reduced the chances of developing Covid-19.

The researchers also found that people who used the nasal spray were less likely to experience symptoms than those given the placebo. No serious side effects were reported in either group and participants noted that the nasal spray was easy to use.



Prof Rakesh Uppal, Director of Barts Life Sciences said: “pHOXWELL presents a significant breakthrough in preventing people developing Covid-19. We now have an effective tool, previously missing, to fight this virus, and is designed to offer extra protection against Covid-19, in addition to vaccines, face masks and washing our hands. I’m immensely proud of everyone involved in this trial and am extremely grateful to the participants who gave their time to be involved.”

The researchers expect that the treatment will be of particular use in areas where vaccination rates remain low and there is a shortage of personal protective equipment for those who need it, such as frontline healthcare workers.

NMAHP Emergency Care and Trauma research growth

The Barts Health Emergency Medicine Research team has been in place for a decade now, supporting the delivery of NIHR Research and developing its own research themes.

There are currently two nurses completing PhDs within the Emergency Care and Trauma group, two of which are senior nurses within the Research team, and one former ED matron, now the lead nurse for violence reduction. The local research strategy has focused on workforce development, including NMAHP’s as researchers. Research nurses often work split roles, within the research delivery team and in the emergency department. Team members are supported to undertake further academic development, completing courses such as Masters in Clinical Research, MSc Trauma science, MSc Leading Clinical Research delivery.

Last year the Barts Emergency Medicine Research team scooped an NIHR/ Royal College of Emergency Medicine award for their ‘outstanding contribution to research’. In addition, nurses presented work at the International Conference on Emergency Medicine, in the Netherlands and the Royal College of Emergency Medicine Annual Scientific conference in 2022. Highlights included:

- “The positives, the challenges and the impact; an exploration of early career nurses experiences in the Emergency Department” – a qualitative project designed and conducted by the research nurses;
- Automating observational trial abstraction in the Emergency Department - working smarter not harder – creation of a novel approach for data collection for a study by writing code that automates inclusion and CRF completion; and
- Exploration of asthma related health beliefs and behaviours in the Emergency Department - a qualitative project designed and conducted as part of a PhD.

The guiding principle of the team is that all patients should be given the opportunity to participate in research. Since 2020, they have carried out 34 research studies to which they have recruited more than 6,000 patients, and they have contributed to or authored 35 peer-reviewed academic papers. The team’s ambition is to continue to build strong research leadership, and an evidence base in practice that is part of our everyday model of care.



PERFORMANCE AGAINST OBJECTIVES

2022/ 2023

Re-start programme and study set-up

Our objective this year was to review our study start-up procedures and introduce a proportionate review for low-risk projects. This is a direct response to the DHSC's concerns about the loss of international commercial trials coming to the UK, one of the reasons for the decline being the UK's study slow start-up times, as highlighted in [Lord O'Shaughnessy's recent report on commercial clinical trials](#).

The research governance section is undertaking development work across all areas of study set-up to streamline and work SMARTER, but also reduce timelines without compromising on the quality of our regulatory and ethical reviews. We have already completed the hosted study set-up process review. We are currently looking at sponsorship review of low-risk studies to put in place triggers for risk assessment as well as potentially amalgamating many of the steps in the process to make it more straightforward and proportionate.

Portfolio Review

The Department of Health and Social Care (DHSC) and NHS England initiated a Research Reset Programme in March 2022 to revitalise the NHS research portfolio. The programme aims to address post-pandemic challenges across the UK clinical research delivery system to support the delivery of research. The objective of Research Reset is to give as many studies as possible the chance of completing and yielding results, generating the evidence needed to improve care and sustain our health and care system. Trusts were asked to review their study portfolios, identify any studies that were not meeting their participant recruitment targets and take action either to improve recruitment or if there was no chance of meeting them, to close studies, release resources and re-deploying them onto studies that were performing well in terms of patient recruitment.

Working with colleagues in the Local Clinical Research Network North Thames, the JRMO has implemented a process of continuous review of the Trust's portfolio. This year four studies have been terminated early because they were deemed to no longer be viable in the current context and only twenty-four have been identified as being behind key recruitment milestones. The JRMO are in active discussions with the Chief Investigators of these studies and their funders, to agree on the future intentions for the studies, our objective will be to work to ensure that as many of these studies as possible are successfully concluded.

The JRMO will continue to closely monitor the performance of all Barts Health and Queen Mary-sponsored studies and the Research Reset list to ensure we can protect as many of our studies from early termination as possible.

Covid-19 Research

Many of the national guidelines surrounding Covid-19 research have now been removed and activity in this area, which is still ongoing, has become, in effect, part of business as usual. Our CRF Vaccine Research Centre at Mile End Hospital is still active and we are participating in several Covid-related vaccine studies with a variety of major players in the field. This area of research has developed rapidly over the past two years and companies like Moderna have entered into agreements with the UK Government to invest substantial sums in expanding vaccine research into other clinical areas, particularly cancer. The experience we have gained in running this type of clinical trial has already proved to be invaluable and Barts Health has already signed up, as a leading vaccine centre, to the Moderna programme, which will take off next year.

Research Finances

The Trust's research income for the year was approximately £29.8m exceeding the target of £28.5m by 4.3%. This is a significant result given that we are still feeling the impact of the Pandemic on our activities. Commercial income was particularly good at £11.1m, 21% above our target for the year and well above pre-pandemic levels. Income from our largest funder, the NIHR, held up well, given that we had predicted a slight drop in income this year. The increase is small at 3% but there are indications that our NIHR grant portfolio is strengthening and we expect income to increase next year. See **Table 1** for a high-level KPI breakdown and **Appendix 1** for a Clinical Board breakdown.

Outturn 2022/23	2022/23 Target	2021/22 Outturn	Target Inc/Decr	Outturn 2023	Inc/Decr	RAG
	£000	£000	%	£000	%	
Commercial Research Income	9,165	8,332	10%	11,094	21	Green
NIHR Projects Income	16,000	16,425	-3%	16,449	3	Green
Charitable and Other Income	3,370	3,064	10%	2,218	-34	Red
Total Income (NIHR, Commercial and Other)	28,535	27,821	3%	29,760	4	Green
<i>Number of portfolio trials with patients recruited in current FY</i>	390	371	5%	292	-25	Red
<i>Number of portfolio patients recruited in current FY</i>	17,894	16,267	10%	13,730	-23	Red
<i>Number of commercial research projects generating income in last 12 months</i>	350	317	10%	294	-16	Red
<i>Number of PIs generating income in last 12 months</i>	170	164	4%	156	-8	Yellow

Table 1 Outturn 2022/23

Research Activity

Performance against our principal activity KPIs has not met our targets in many areas this year, which reflects a national decline in the number of recruiting trials on the NIHR portfolio and patient recruitment to those trials since the start of the Pandemic, see **Tables 2 and 3** below.

What is encouraging is that the national trend is upwards and the Trust has a very robust pipeline portfolio which should show an overall improvement next year. In a national and local context, Barts Health was in the top ten recruiting trusts in the UK this year, the highest recruiter to commercial trials (see **Table 4**) and the highest recruiter in our regional network, the Local Comprehensive Research Network North Thames.

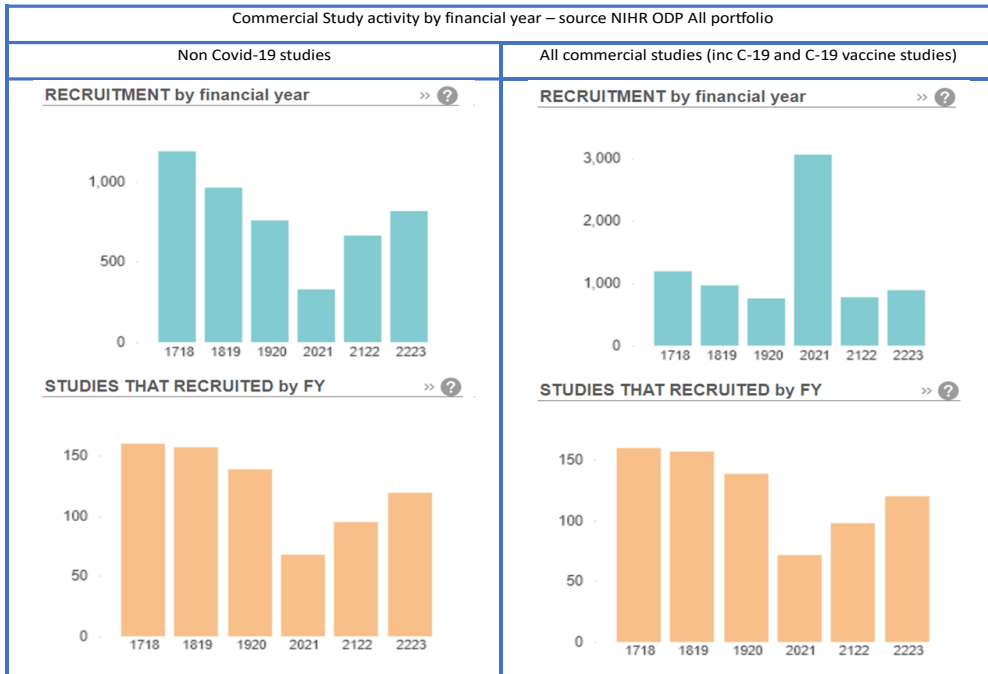


Table 2 Barts Health Recruitment to Commercial Studies

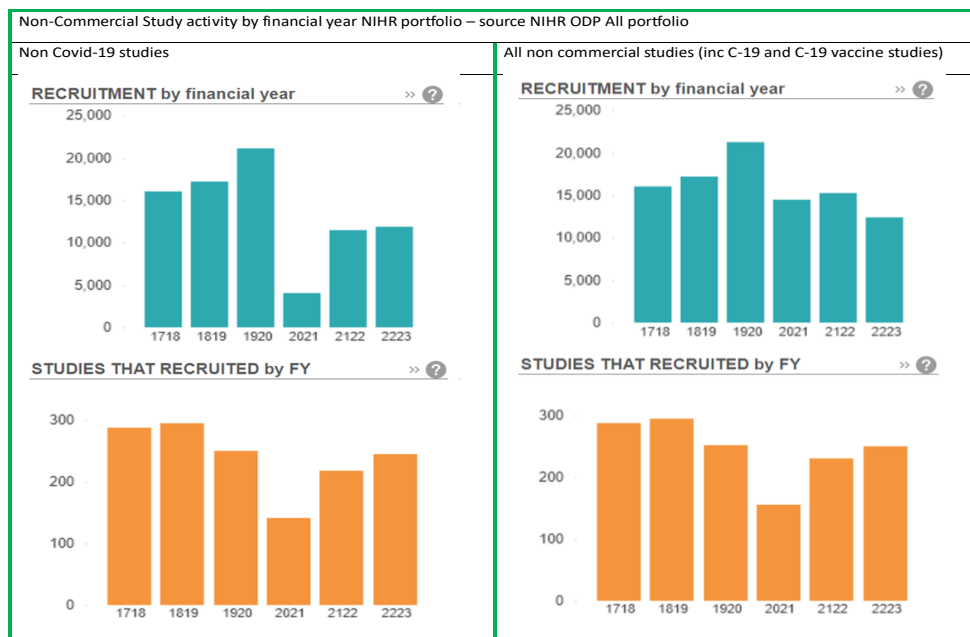


Table 3 Barts Health recruitment to non-commercial studies

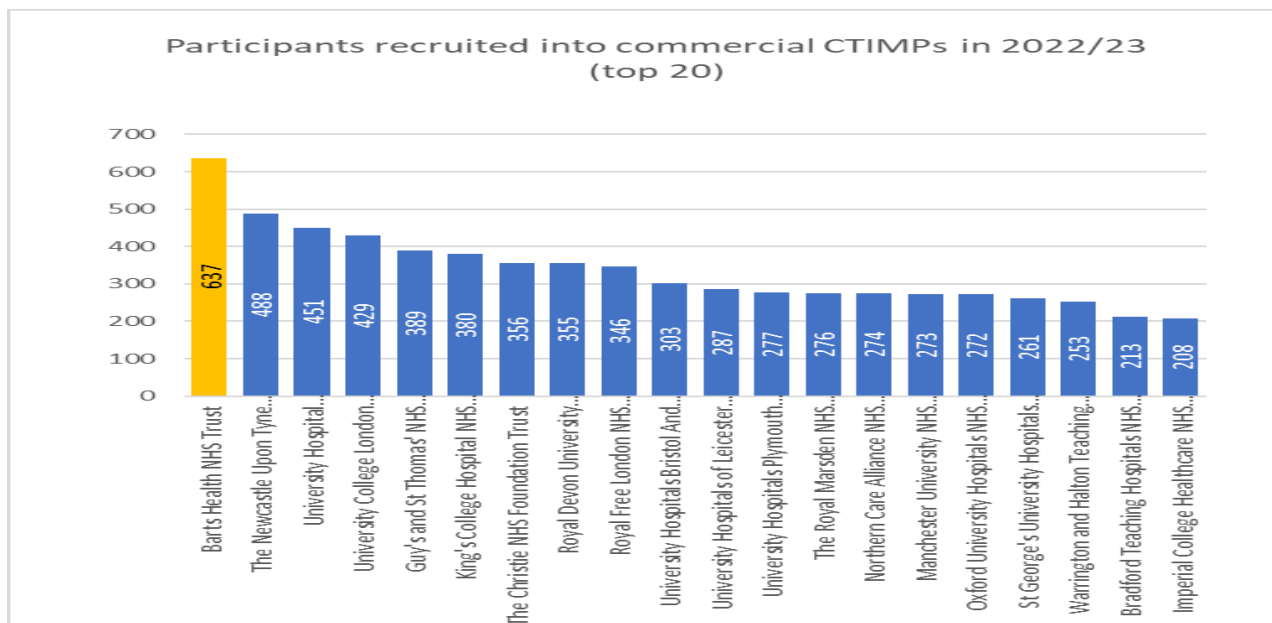


Table 4 Top twenty UK recruiters to commercial studies 2022/23

Senior research leadership: supporting ten consultants and senior AHPs to become research-active

Our Principal Investigator (PI) scheme was successfully launched this year. The PI scheme aims to identify, develop and support a new generation of young and enthusiastic investigators from across Barts Health to develop their careers in research, growing our research capacity. The scheme provides time, training, support and mentorship for new researchers that will enable them to build their research skills and gain experience in delivering research.

Applications were received from colleagues from all our sites and are areas of expertise. Eleven awards were made, providing funding for nineteen research PAs in anaesthetics, ITU, acute medicine, vaccines/ infection, paediatrics, hepatology, gastroenterology, gynaecology, diabetes/ endocrinology, physiotherapy and orthopaedics. We are particularly delighted to appoint our first NMAHP research leader to the scheme and we hope to see this grow further in future years.

Clinical academic leadership

Barts Health and Queen Mary University London have unveiled plans for an Academic Centre for Healthy Ageing in the UK to improve the quality of life for millions of people in London. Hosted at Whipps Cross Hospital, the new centre will create a collaborative network of clinicians, researchers, educators, policymakers and the local community to transform how services work for older people. Thanks to £6.6 million awarded by Barts Charity, the centre will be a network across Barts Health, Queen Mary University London, and partner care provider organisations hosted at Whipps Cross Hospital.

In Muscular Skeletal (MSK) we have appointed a clinical lecturer in Hand therapy to start in September. This is the first clinical academic post in hand therapy and their remit will be to build their research portfolio as well as mentor aspiring clinical academics in MSK therapy at BH. We are also in the process of appointing a professor of rehabilitation. The research group are working on building capacity and infrastructure for clinical academics in MSK therapy, recognising that the path for this group is not as well defined as it is for medics. Hopefully, these posts will be the start of building even more research capacity in this field of medicine.

Our clinical leadership structure has been strengthened to support our Director of Clinical Research, Rupert Pearse. His team of Deputy Directors now provide cross-site support for researchers as we implement our plans to build our researcher capacity.

Table 5, below, shows the new team's membership and roles.

Prof Rupert Pearse, Director of Clinical Research	3 PAs	
Dr Manish Saxena, Deputy Director of Clinical Research	2 PAs	Leading on clinical trials and data management infrastructure issues
Prof Klaus Schmierer, Deputy Director of Clinical Research	2 PAs	Leading on CRF-related matters and research governance
Dr Stephen Kelly, Deputy Director of Clinical Research	1 PA	Leading on business development (securing new research projects),
Dr Sophie Welch, S Deputy Director of Clinical Research	.2 FTE	Currently on maternity leave, Sophie will be leading on workforce, community engagement and equality diversity and inclusion (EDI) matters.
Vacancy Dr Vickie McDonald, Deputy Director of Clinical Research - Development	2 PAs	Working in a developmental capacity, supporting research governance, workforce (which has specific medical and NMAHP elements), community engagement and EDI.
Ms Imogen Skene, Deputy Director of Clinical Research – Development	.2 FTE	Working in a developmental capacity, also supporting research governance, workforce (which has specific medical and NMAHP elements), community engagement and EDI.

Widening our Partnerships

Our North East London Acute Provider collaborative research and clinical trials initiative with Barking, Havering and Redbridge and The Homerton continues to develop. We aim to make a step change increase in clinical research opportunities for our diverse community across east London, improve patient trial engagement focussing on a wider and more diverse participation in research to put us in a much stronger position to form national and international research collaborations, attracting additional funding for our trusts. Our partnership workstreams are:

- Strategy development
- Establishing common policies
- Addressing health inequalities

We have already begun to share our expertise in research administration and governance and are exploring mutually beneficial opportunities for expanding our research activities. The partnership will develop further next year as the work we have begun begins to bear tangible fruits.

Our Trust was heavily involved in the development and testing of vaccines during the Pandemic and is still involved in the delivery of new vaccines. The expertise in the field gained by our Vaccine Centre and in particular the relationships developed with our commercial partners has put the Trust in a strong position to participate in two major development opportunities with leading Pharmaceutical companies that have recently been announced by the DHSC. The Government recently announced that Moderna, one of the leading Covid 19 vaccine developers, will invest a substantial sum in mRNA research and development in the UK, aiming to develop vaccines targeting a range of other illnesses, such as flu and RSV. We have already initiated a dialogue with the company and are looking forward to developing our partnership further.

Nursing, Midwifery and Allied Health Professionals (NMAHP) clinical academic, research and developmental achievements

Our first objective is to deliver outstanding patient care, and our research is critical to achieving this. We continue to promote investigator-led research across professional boundaries and build on strengths in research capacity and capability. Our research strategy this year has focused on workforce development for NMAHPs as researchers, developing clinical academic careers and building core research leadership themes. Our research in Cardiac Nursing, Cancer, Respiratory and Endocrine practice, Neonatal and Child Health, Emergency Care and Maternity practice has developed through the superb leadership of Professor Julie Sanders, Dr Jackie Buick Dr Deanna Gibbs, Dr Hortensia Gimeno, Imogen Skene and collaborative work with Professor Angela Harden (City University of London) and our maternity teams. Jackie has been awarded a prestigious NIHR Senior Research Leader role.

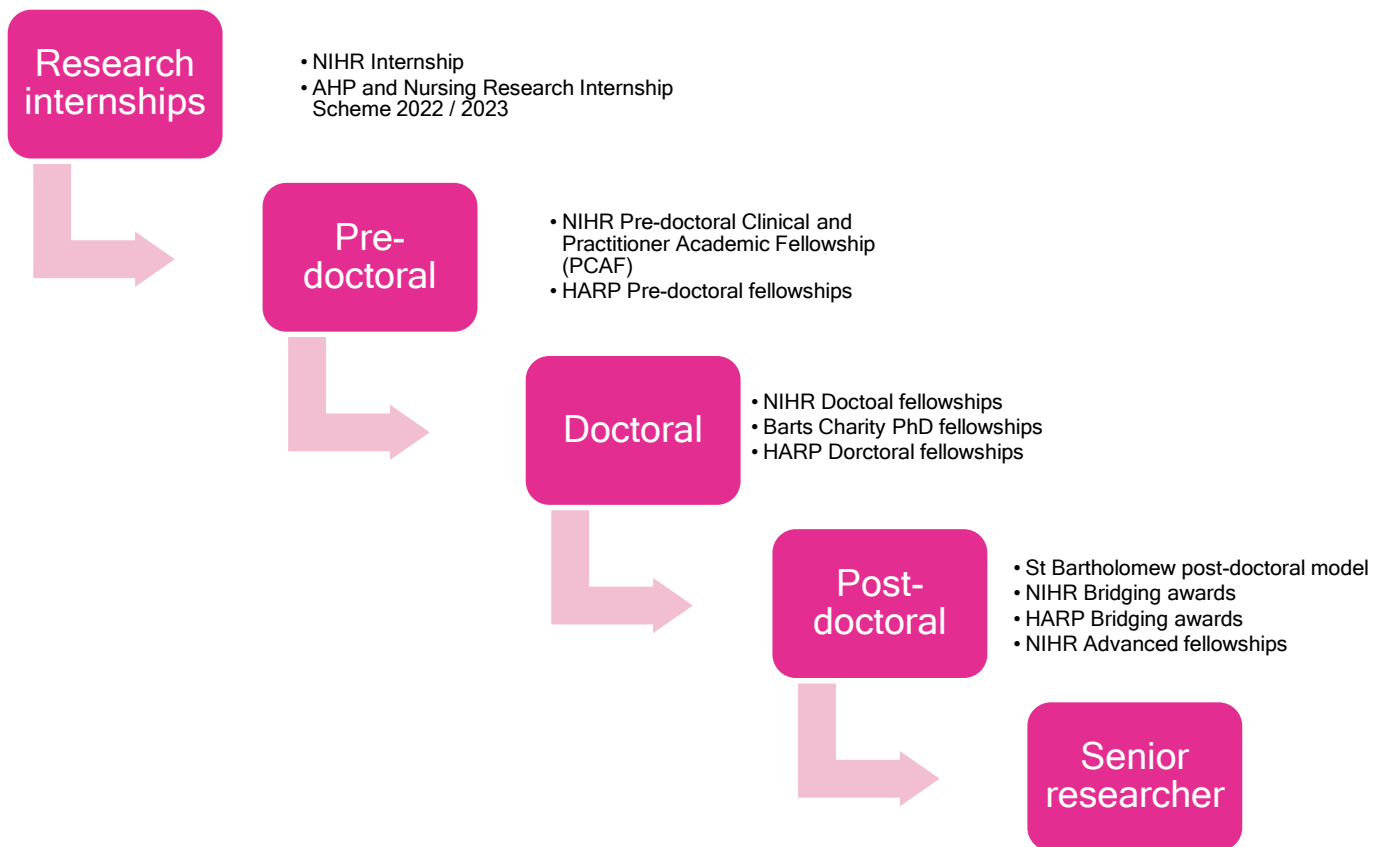


The impact of our research in genomics nursing is shaping new thinking and practice as is developing nursing data science, enhanced through the growth of nursing informatics (Professor Louise Hicks and team) and digital health activity, working with Life Sciences. International invitations have expanded our reputation through visits, presentations and sharing successes in building a research culture, including St Bartholomew’s post-doctoral careers and more broadly in the key research themes across the Barts Health Group.

This year two members of the NMAHP research team have been appointed Deputy Directors of Research, Dr Sophie Welch, Senior Research Nurse in the Cardiac Research Department and Imogen Skene, Senior Research Nurse in Emergency Medicine.

Our publication profile continues to increase with eighteen peer-reviewed papers and many more professional publications. Of note is a six-paper series in the British Journal of Cardiac Nursing by Julie Sanders on our research infrastructure supporting and sustaining a positive research environment. Colleagues are leading NIHR portfolio studies, supporting internships, international masterclass series and the range of doctoral and post-doctoral studies.

Our Research leads have developed a structured framework designed to create clinical academic opportunities as illustrated below:



RESEARCH INFRASTRUCTURE

Biomedical Research Centre

Barts Health received £20.9 million in funding from the NIHR in November to create the new NIHR Biomedical Research Centre (BRC), a partnership between Barts Health, with Queen Mary University of London and St George's University of London. It is led by Professor Sir Mark Caulfield, Vice Principal for Health at Queen Mary and the Barts BRC Director,

This funding will enable healthcare professionals and scientists to research and develop new ways to diagnose and treat a variety of illnesses including cancer, musculoskeletal conditions and heart disease, based on an individual patient's genetic make-up and health history, known as precision or personalised medicine.

This grant is a major boost to tackle health inequalities and deliver pioneering, innovative healthcare to the people of East London and beyond and builds on existing research carried out by the Trust. The new BRC has a particular focus on finding new ways to diagnose diseases like cancer earlier, which increases the chances of survival. One way they will do this is by looking for patterns and clues in existing healthcare data that has been depersonalised, which could reveal new information about a disease, and in turn how to better diagnose and treat it.

NIHR Barts Health Clinical Research Facility

Planning for the new NIHR Barts Health Clinical Research Facility (CRF) at the Royal London Hospital passed two important milestones this year. Firstly, funding from the NIHR was secured so the facility has an official NIHR imprint which will open doors to additional funding. Dr Kieran McCafferty was appointed as Clinical Director for the CRF in October and the design for the new unit was approved by the Trust Board in November. Secondly, our bid to The Barts Charity to support that design and fit-out was awarded in February as part of the Charity's Barts 900 campaign. The new facility will support a full range of clinical trials, including early-phase first-in-human studies and advanced therapy trials, providing more capacity and increasing both the quantity and quality of our clinical research. Barts Charity, NIHR funding and income from grants and commercial research will support the CRF, covering staff and operational costs, including an innovative scheme to support new researchers. The unit aims to widen participation through a programme of community engagement, demonstrating the benefits of research to the local community and beyond. Construction work is due to start in July 2023, with a full opening due in September 2024.

NIHR Capital Bid

This year the DHSC issued a call for applications for Capital items up to a £5m ceiling. Our Trust application was for approximately £4.8m and included items for the Homerton and Mid and South Essex. The results will be published next year.

Barts Life Sciences (BLS)

THE BLS is a partnership between Barts Health NHS Trust and Queen Mary University of London to bring together researchers, scientists, clinicians and industry to collaborate and accelerate the latest healthcare innovations from bench to bedside. The focus of the work of the Barts Life Sciences (BLS) is to transform health life expectancy and opportunity for our community in a new life sciences campus at Whitechapel by creating healthcare solutions that can be translated directly into patient benefit at Barts Health hospitals and to generate investment in the local economy.

As owners of the development site, the Department of Health and Social Care and Queen Mary University of London submitted a planning application for the development in December 2021. Supported by BLS, they have discussed the proposals with the planning team at LBTH during 2022 and 2023. The positive impacts of the cluster have been welcomed, but there are concerns about the impact of the proposed development on heritage assets and place-making in the area. Subject to the outcome of these discussions, it is anticipated that the application will be reviewed by the planning authority in early 2024.

Alongside this BLS has been developing a range of programmes to support the development of a vibrant life sciences cluster in east London including:

Precision Medicine Platform (PMP): The PMP will support the secure analysis of research-ready NHS patient data from a diverse community of over 2.5M people in East London. These will include statistical analysis, machine learning and bioinformatics resources to develop tools and products that will be used to improve health outcomes for the whole community. Funded by Barts Charity, the PMP will be operational in a test version from October 2023 and fully operational from April 2024.

Skills and training: Following the opening of the first hub at Newham College in October 2021, the team has been working with Waltham Forest College to open a hub in 2023.

Population health and primary care: BLS is working with integrated care systems and primary care partners to develop and implement new models of care. A new clinical academic primary care facility in the Whitechapel life sciences campus will enable better service integration, links with academic teams and wider participation in clinical research.

Patient & Public Involvement and Engagement (PPIE)

Our Research Engagement unit has increased its activity during the year. They have provided advice and guidance to over 40 researchers and research teams and contributed to major grant applications by Barts Health and Queen Mary University of London, including the BRC and CRF applications, contributing to their success.

The Unit has evolved to better reach under-served communities through participation in NIHR CRN's 'Research Ready Community Champions' programme. The project has involved working closely with two Barts Health-based community champions to reach groups who have been historically under-served by the healthcare research sector, including people living with physical and mental disabilities and women of Bengali, Pakistani and North African heritage. Future plans involve scaling up the project by expanding the number of champions working with Barts Health researchers to reach underserved communities.

A successfully bid was submitted for a Small Grants Award from our local research network. This project aims to meet the needs of underserved communities by ensuring the Trust has research-ready bilingual health advocates available to support our patients and investigators during the consent process and research appointments. The project will initially develop and deliver bespoke training workshops to the Trust's advocacy teams (approx. 35 staff), covering 10 languages across the group. Public contributors will be involved in the design and delivery of the training module.

Working with the Trust's Communications team, the Unit ran a successful research awareness campaign during Black History Month. Our social media engagement activities were particularly successful, with a Tweet, featuring Sam Gordon from our Ophthalmology research group, viewed by 21.3k users, with 121 clicks through to the main article. This was one of the top 3 performing posts for October 22. Our Instagram podcast featuring Dr Vanessa Apea and MS patient Roxy Murray reached over 3k accounts and received over 4k plays.

Once again we performed very well in this year's NIHR PRES engagement survey, meeting our target of 455 returns by year-end.



TRIAL PARTICIPANT EXPERIENCE

Suresh's Experience in His Own Words – From his speech at the inauguration of the Barts 900 fundraising campaign.

As a nurse, in this article I'm going to talk about my experience of a clinical trial that transformed my life and why it's so important to uncover the treatments of the future.

I've always led an active life. I love to travel, ski and head off on adventures on my motorbike. All that came to an abrupt halt around 10 years ago when I got severe pain in my hips. I was only 56. I was very stiff, and it got to the stage where I could hardly walk. The pain got worse. It went into my legs, my arms, my wrists, even my jaw – it was everywhere and it was constant – day and night. Some days I'd try to brush my teeth, but the stiffness in my elbow would prevent my hand from reaching my mouth.

Blood tests at the doctors showed it was rheumatoid arthritis. I didn't think it was that serious and I thought that medicine would find me a cure. I was put under the care of Professor Hasan Tahir at Whipps Cross Hospital and medication improved things, but I was still in a lot of pain. I had flare-ups when I couldn't do much as I was so stiff. I was struggling to walk, let alone enjoy the travelling and hobbies that meant so much to me. At the time, I was managing two care homes, but I had to get a colleague to take on some of my work as there were periods when I couldn't cope with it all.

I'm an optimistic person, I have a loving family and some lovely friends, but there were times when the pain was so bad that I didn't want to live anymore.

Professor Tahir could see how much it had put a stop to my life. He suggested I go on a clinical trial. I wasn't aware of trials before this. It's only when you need something that you find out about it.

I was given a treatment called tocilizumab, which at the time was new and being tested. It involved going to Whipps Cross Hospital every four weeks for an IV infusion. Here I have to give a mention to the wonderful caring staff – Diane, Carey, Kim, and Vinesh to name a few, who looked after me and answered any concerns I had.

Over time, the pain decreased and my mobility improved. Eventually, my pain disappeared.

I was able to go a bit longer between treatments, so each time I had an infusion I would get six weeks of freedom where I could jump on my motorcycle or head off abroad. It wasn't a cure, but I'd improved around 90% and was in remission. When the trial came to an end and I was off the treatment, my symptoms came back with a vengeance. It was a difficult time. Professor Tahir built a case and was able to apply for funding for me to continue the treatment on the NHS, which has been funded for the last eight years.

Since the pandemic, the treatment has changed to injections I do myself at home every two weeks. It makes it more difficult to travel as the medicine needs to be kept in the fridge. I'm hoping that more research will lead to improved ways of delivering treatments like these.

I can say, without any doubt, that the clinical trial gave me my life back. I'm able to play with my grandchildren, I'm skiing again and I ride my motorbike here and abroad. I'm retired now and I've got a lifetime ambition to ride my motorcycle from here to India. Thanks to my improved health, I'm going to do it.

I know how much suffering people can be under. The only way to find cures and treatments that work is to try new things and that takes time and money. I hope that in the future, many more people just like me get the chance to access innovative treatments that mean we can all live our lives to the full.

Suresh Chand, Woodford in East London 2023

FORWARD OBJECTIVES: 2023/24

As we enter the final year of our Five Year Strategic plan we will reflect on plans to deliver research in a swiftly changing post-Pandemic environment. Much has changed over the past five years and the new strategy will set out plans to address how we will engage in emerging research themes such as precision medicine, artificial intelligence and the wider use of data to develop new research programmes.

We will continue this year our drive to re-invigorate our research programmes and increase the number of patients who can access research in our Trust. We will focus on inclusivity and populations that are underrepresented in research. We will aim to continue to increase our research income so that we can invest in new and innovative research initiatives.

Our Clinical Research Facility (CRF) team will focus on managing the design and build programme at the Royal London Hospital to achieve our target opening date of September 2023. In addition, we will work to integrate the CRF facilities at all of our sites under one strategic management umbrella to increase capacity and provide access for our patients to research at their local hospitals.

Our other activities this year will be aligned with our strategy and will be geared towards completing the comprehensive body of research work the Trust set out to do in 2019.

1. Study Set-Up and Portfolio Review

Our drive to ensure that each of our research trials and studies achieves their individual targets and research objectives will continue at pace and our systems for continuous portfolio review will be to the NIHR's project monitoring system. In this we aim to achieve town activity targets and contribute to the UK-wide drive to ensure that our national research delivery can compete in the world market, increasing the number of trials of new medicines and innovative technologies that that our patients can access. To facilitate study set up we will continue to explore and implement systems that will reduce the length of time to start our studies, focusing on a proportionate review process whilst maintaining strong and effective research governance controls. For example, we are about to embark on a stakeholder engagement initiative to gain their views on our proposals. We aim to complete this work by July 2023. We will then move on to higher-risk projects with the aim of re-configuring our current review processes, embedding into our procedures changes that will be initiated at the national level to MHRA regulatory approvals, ethics, costing and contracting rules.

2. Finance and Performance Metrics

The Trust met most of its financial targets in 2022/23 and its commercial and NIHR grant income has increased even though the exceptionally high income received from

vaccine studies during the pandemic has reduced substantially. Our commercial trial pipeline is strong and we expect next year's income to increase by 10%. NIHR income is also expected to increase on the back of our successful BRC, CRF and ARC applications, as will charitable income, particularly from the Barts Charity, which has been particularly generous in supporting several of our major development projects, for which we would like to express our gratitude for this vital support. Table 5 sets out our forecast outturn for 2023/24.

Table 5: Finance and Activity Forecasts 2023/2024

Forecasts 2023/24	2023/24 Forecast	2022/23 Baseline	Inc/Decr
	£000	£000	%
Commercial Research Income	12,150	11,094	10%
NIHR Projects Income	18,000	16,448	9%
Charitable and Other Income	3,000	2,218	35%
Total Income (NIHR, Commercial and Other)	33,150	29,760	11%
Number of portfolio trials with patients recruited in the current FY	321	292	10%
Number of portfolio patients recruited in current FY	15,104	13,730	10%
Number of commercial research projects generating income in the last 12 months	324	294	10%
Number of PIs generating income in the current FY	170	156	9%

3. Consultant leadership: Support ten consultants to become research active within two years

We will monitor the progress and outcomes of our first tranche of colleagues who have enrolled on the Principal Investigator (PI) scheme after its successful launch this year. The Clinical Director of Research will evaluate the contribution the scheme has made to the development of our research infrastructure. Consideration will be given to launching a new round of the scheme in 2024/5.

4. Clinical academic leadership

We will build on the successes of recent years in appointing new clinical academic roles, such as Musculoskeletal and Healthy Ageing, to increase the breadth of our research and our researcher infrastructure, further enhancing the strength of our partnership with Queen Mary. A regional developmental approach will be adopted in line with our objective of widening our partnerships with our Northeast London Acute Provider, BHRUT and Newham.

5. Widening our Partnerships

Our work with the North East London Acute Provider, BHRUT and Newham will continue next year as we work on developing our collaboration strategy, implementing common policies and addressing the health inequalities that exist in our area. We will share best practices in delivering research and continue to develop our support network that will contribute to the achievement of our partnership aims. The Trust has successfully applied to Host the new Regional Research Delivery Network North London, which brings together the existing North East and West London networks to create one new integrated network for our region. We will work with the NIHR and partners across London to ensure that the new network is operational by September 2025.

6. Nursing, Midwifery and Allied Health Professionals (NMAHP)

Our NMAHP team have made tremendous progress in developing its academic and clinical research profile and by using the management tools they have developed, particularly the structured framework designed to create clinical academic posts, will continue to deliver leading-edge research next year. The NMAHP Leadership will be an integral part of the team that will work towards developing the Trust's next five-year research strategy.

7. Infrastructure funding

Next year will be critical to the Trust's mission to build our new state-of-the-art Clinical Research Facility and our team will work with the Trust's design and build team to ensure our plans are on target to meet a go-live date in August 2025.

We will monitor the progress of our major infrastructure programmes, Barts Health Biomedical Research Centre and our NIHR Applied Research Collaboration (ARC) *North Thames*, as they enter their new grant extension periods.

Our major NIHR capital bid application result will be announced early in the new financial year and if successful we will work with our colleagues in Estates, Finance and Imaging to develop plans to procure and install any capital equipment we succeed in obtaining funds for and ensure funds are identified to finance on-going revenue costs.

8. Barts Life Sciences - Bioinformatics and information governance

We will continue to work with our colleagues in Life Sciences to develop the forward plan for this major initiative as an active stakeholder in delivering our joint strategic objectives, particularly those that facilitate growth in our research activities like the Precision Medicine Platform and the Population health and primary care initiatives. We

look forward to developing and conducting new and innovative programmes across our sites and clinical specialties with our Life Science colleagues.

9. Barts Health Research Strategy Review

Our senior management team will engage with our primary stakeholders and continue the process of drawing up a new five-year Trust research strategy. The Trust has been extremely successful in developing its research infrastructure and national profile in recent years and is in a good position to build on these successes and meet our aim of being one of the leading research trusts in the UK, providing our patients with unappreciated opportunities to benefit directly from the leading edge research we conduct.

High-level talks have already taken place with our principal academic partner, Queen Mary University of London around the process for determining our joint and several strategic objectives to ensure that our synergies are identified and our objectives set out clearly to reflect our individual and corporate needs. The key appointments required to complete our corporate management establishment have been made and Jenny Rivers, our new Director of Research Development, will join the team in October next year to continue the work to develop the new strategy, with colleagues.

10. Patient & Public Involvement and Engagement (PPIE)

In 2023/24 we will build on existing programmes to increase the number of Patient Research Champion (volunteer) placements and the membership of our PPIE Practitioners Network. We will also seek to increase the number of teams delivering NIHR PRES surveys and therefore, the number of patients taking part in the survey to 550. We plan to work with our colleagues in BHRUT and The Homerton and invite their PPIE practitioners' network to collaborate on joint initiatives, supporting our wider ICS Acute Service Provider collaboration objectives.

We will work to embed best practices in research communications amongst our research workforce, in response to a significant increase in the number of requests for help in this area, working with the Trust Communications team to implement our plans to share research information more widely through Trust communication channels.

We will seek to increase investment in the Research Engagement team and a Barts Charity application for two full-time posts will be submitted next year.

We aim to embed inclusive research practice more widely in our Trust through focused training sessions and as part of a team, participate in a Research Development led project to establish a Trust and Queen Mary diversity data collection system.

Rupert Pearce
Clinical Director of Research
July 20223

Gerry Leonard
Director of Research Development

APPENDIX 1: KEY PERFORMANCE INDICATORS: OUTTURN BY CLINICAL BOARDS 2022/23

Outturn 2022/23 Clinical Boards	2022/23 Target	2021/22 Outturn	Inc/Decr	AHS	Cancer	Cardiovascular	Childrens Health	CSS	Medicine	Surgery	Womens Health	Other	Total
	£000	£000	%	£000	£000	£000	£000	£000	£000	£000	£000	£000	£000
Commercial Research Income	9,165	8,332	10%		2,665	1,501	83	1,106	3,877	593	0	1,269	11,094
NIHR Projects Income	16,000	16,425	-3%	4,984	748	3,090	488	1,209	2,934	863	462	1,671	16,449
Charitable and Other Income	3,370	3,064	10%		111	499	105	1	407	525	55	515	2,218
Total Income (NIHR, Commercial and Other)	28,535	27,821	3%	4,984	3,524	5,090	676	2,316	7,218	1,981	517	3,455	29,760
<i>Number of portfolio trials with patients recruited in current FY</i>	390	371	5%	0	74	54	27	12	85	29	3	8	292
<i>Number of portfolio patients recruited in current FY</i>	17,894	16,267	10%	0	630	1,286	472	94	7,655	1,618	385	1,590	13,730
<i>Number of commercial research projects generating income in last 12 months</i>	350	317	10%	0	77	55	12	24	106	19	0	1	294
<i>Number of PIs generating income in last 12 months</i>	170	164	4%	0	24	26	11	12	54	24	3	2	156