Joint Research Management Office

Research News Bulletin

Issue 115 **2 October 2020**

The Research News Bulletin is edited by Nick Good ~ nicholas.good@nhs.net

The JRMO has moved!

Whilst most of our staff continue to work from home, in accordance with Government, NHS and University guidelines, the physical location of JRMO has now changed.

Over the summer a great deal of time was spent by staff packing up the filing and our personal possessions. For a while there was no physical office as the QM Innovation Centre was closed, but now we have shifted everything across into new premises. For the foreseeable future JRMO staff will occupy the ground and first floors of Empire House, 67-75 New Road, Whitechapel, E1 1HH – that's just across New Road from our old office and opposite the Abernathy Building..

Empire House is a major refurbishment of an iconic art deco building, fitted out in what Estates Agents call 'loft style'.

When we return to work in Empire House, probably, in a phased and part-time way, access will be limited and by appointment only. But we are always available to speak to you on the phone or be emailed.

A full list of JRMO contacts – both generic and individual - is available on the JRMO website.

Many staff managed to transfer their work telephones to their mobiles - so don't be afraid to try calling!

Bulletin contents

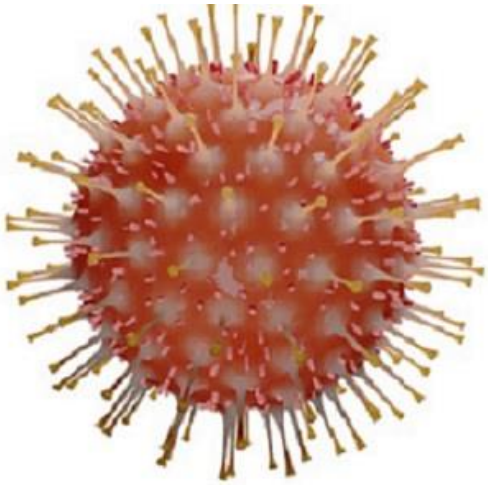
Updates and guidance for our researchers on matters relating to research and the Covid -19 virus can be found on the JRMO website

Covid vaccine research – get involved!

Barts Health has been leading the way on research and understanding of the disease with over 1,200 staff taking part in an antibody study and 550 staff recruited to a healthcare workers study. The Trust will continue the fight against the virus by ensuring the local population has access to vaccine trials at a specially designated site, right in the heart of east London (Bethnal Green).

Details of studies, the first of which is expected to begin recruitment in November 2020, will be posted on the Take Part pages of the Barts Health website. Alternatively you can email the research team at covidresearch.bartshealth@nhs.net.

Over 250,000 volunteers are now registered in the UK for Covid-19 vaccine trials and recruitment has begun on the world's first Phase 3 Covid-19 vaccine study to test the effectiveness of the new Novavax vaccine.



Participants aged between 18-85 years will help test the safety and effectiveness of a new Covid-19 vaccine, developed by US biotechnology company Novavax, at several NIHR sites across the UK, including Lancashire, the Midlands, Greater Manchester, London, Glasgow and Belfast. Participants for the Phase 3 trial will be drawn from the NHS Covid-19 vaccine research registry.

The registry was launched in July to help create a database of people who consent to be contacted by the NHS to take part in clinical studies to help speed up the development of a safe and effective vaccine against coronavirus. It has been developed as part of the UK Government's Vaccine Taskforce, in partnership with the National Institute for Health Research (NIHR), NHS Digital, and the Northern Ireland, Scottish and Welsh Governments.

With several more studies for potential vaccine candidates expected to start before the end of the year, UK researchers are particularly encouraging volunteers from diverse ethnic backgrounds, people with underlying health conditions and the over 65s, to take part in vaccine research so that any vaccines developed will work for as many people as possible.

Should a vaccine be successful in clinical studies they could start to roll-out in the UK in 2021. It is expected that these vaccines would first be given to priority groups such as frontline health and social care workers, ethnic minorities, adults with underlying health conditions, and the elderly based on JCVI advice.

To find out about volunteering for COVID-19 vaccine studies visit the NHS research website. More information about taking part in research and other opportunities to take part in COVID-19 research can be found on the Be Part of Research site.

Take part in the Patient Research Experience Survey 2020/21

The annual NIHR Patient Research Experience Survey (PRES), which gathers feedback from patients who take part in our studies, begins again this month at Barts Health.

Last year 831 surveys were completed and the 19 research teams who took part have been reviewing their local results to learn to learn what works best for their patients and to identify changes they can make to improve their experience in the future.

Headlines from 2019/2020 survey (indicating an overall improved performance at Barts Health over the last 12 months):

- I had a good experience: 89% (up from 85% in 2018/19)
- I knew who to contact: 89% (up from 85% in 2018/19)
- Were you aware your health care provider supported research: 43% (up from 24% in 2018/19)

- I would take part again: 88.5% (up from 79% in 2018/19)

We are looking for new teams to take part in this year's PRES which we are looking to deliver virtually, to help ensure the experience of our patients and carers is the best it can be and for their feedback to shape our decisions about future healthcare services. Contact the Research Engagement and Diffusion team ASAP if you would like to find out more about the survey and how we can support you to deliver this during the pandemic.

New National Genomic Healthcare Strategy published

Health and Social Care Secretary Matt Hancock has announced the launch of a landmark new National Genomic Healthcare Strategy. 'Genome UK: the future of healthcare' sets out how the UK genomics community, from researches through to the NHS, will work together to harness the latest advances in genetic and genomic science, research and technology for the benefit of patients, to create the most progressive genomic healthcare system in the world.

This will drive improvements in healthcare for patients, reducing limitations between clinical care and research, and continue to deliver innovative new research projects in the UK.

The strategy focuses on 3 key areas:

- Diagnosis and personalised medicine; using genomic technologies to identify the genetic causes of rare diseases, infectious diseases, and cancer and provide personalised treatments to illness. The NHS will embed the latest genomic technologies to benefit patients.
- Prevention; genomics will be used to accurately predict the risk of chronic diseases. Subject to validation, national screening programmes could use genomics to identify at-risk populations, including more vulnerable populations and those in harder to reach groups to allow earlier clinical and lifestyle interventions
- The research will enable more efficient and improved collaboration between researchers and clinicians to benefit patients while upholding the highest standards on the use of data. This includes ensuring that research findings are translated into healthcare settings to benefit patients.

Genomics England continues to focus our efforts on enabling genomic healthcare to help doctors diagnose, treat and prevent illnesses, and accelerating genomic research by providing the health data and advanced technology researchers need to make new discoveries and create more effective medicines. You can find out more about the strategy and work on the Genomics England website.

Your Path in Research 2020

On 4 October the NIHR launches the 2020 Your Path in Research campaign.

The campaign, which begins on James Lind's birthday, is aimed at encouraging more healthcare professionals across a wide range of NHS trust and community settings to become more involved in research.

It will be supported across NIHR channels and social media for two weeks from October 4.

This year the CRN is looking for volunteers to do one (or more!) of three things:

- Make a 30-second film of yourself talking about research for us to promote on our social media channels
- Post a selfie/photo of yourself with the attached social media board, on which you've summarised why you are proud to have a career in research, for us to promote on our social media channel
- Post your selfie/photo with the summary of why you are proud to work in research in some email text and we can promote it on social media

In each case, you are asked to tag your NHS Trust - and any accounts you felt appropriate - in our Twitter and LinkedIn posts.

Ben Jones, Communications and Engagement Manage at the LCRN North Thames Core Team would like to receive your photos or

stories: benjamin.jones@nihr.ac.uk. If you have any questions or queries, please let him know or you can discuss with our own Engagement and Diffusion Team who can be contacted at patientsinresearch.bartshealth@nhs.net

Take part in CoPE-HCP research into the physical and emotional wellbeing of healthcare professionals

The Covid-19 pandemic has led to unprecedented strain to healthcare systems, worldwide, and posed unique challenges to the healthcare professionals and the general public. It is anticipated that these changes may have a physical and emotional impact on healthcare professionals, more than the other professionals.

All healthcare professionals are invited to share their insights and experience in the CoPE-HCP study. This study involves the collection of anonymised data in form of survey (of approximately 15 minutes) exploring the physical, psychological and social effects of the current pandemic on healthcare professionals and compare that with the other non-healthcare professionals.

We hope to improve the support provided to healthcare professionals/ NHS staff members in such challenging times. The information collected from this study will be pivotal in helping us do so.
To take part you need to be one of the following:

(i) A healthcare professional in direct patient contact, or
(ii) Healthcare/Hospital administrative staff not in direct patient contact, or
(iii) Non-healthcare / Non-hospital staff: academic, university staff or other professional

Further information is available online and to take part please access the survey.

Newham and Whipps Cross Research Forums

Two very successful and much-welcomed Research Forums took place in September to highlight Covid-19 research activity at both Whipps Cross and New Hospitals. The events were delivered online via Webex, open to all staff and students across the Trust and Medical School.

The programmes covered our Covid-19 research activity over the past 6 months and offered different perspectives from strategic oversight (Professor Sir Mark Caulfield) to reflections from frontline research delivery staff. Plus one of our Covid -19 trial patients gave a talk about his experience of taking part in the RECOVERY trial. The forums were also designed to engage and inform staff about opportunities and support available for clinical researchers (new and returning).

At Newham Dr Simon Tiberi, Consultant, Microbiology spoke about the RECOVERY trial at Newham Newham Hospital research delivery team, including reflections and learning from research nurses, trial managers and AHPs delivering research. Whilst, at the Whipps Cross, event Dr Angela Pakozdi, Consultant Rheumatologist Delivering COVID-19 research at Whipps Cross spoke about the local experiences of research nurses, trial managers and AHPs delivering Covid-19 research

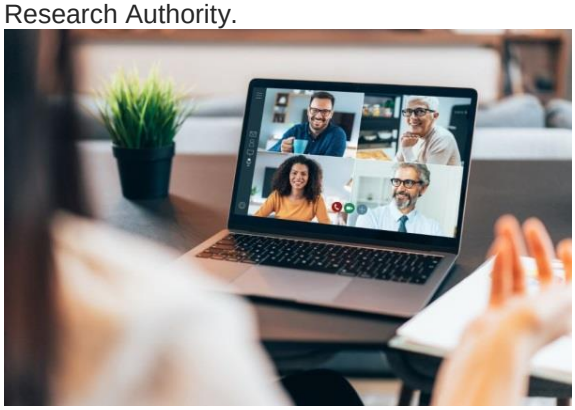
Gerry Leonard, Director of Research Development, Barts Health have an overview of the Joint Research Management Office (JRMO) support available to researchers – more information about which can be found on the JRMO website.

These events were arranged by the Engagement and Diffusion Team who can be contacted at patientsinresearch.bartshealth@nhs.net

Join HRA Confidentiality Advisory Group

The HRA is recruiting volunteer lay members to join our Confidentiality Advisory Group (CAG). CAG meets regularly to assess applications to use healthcare data and provides independent expert advice to the HRA and the Secretary of State for Health. They are looking for members with experience of healthcare as a patient, a carer or a professional, and with some experience of working with data.

The CAG committee meets regularly to assess applications to use healthcare data and provides independent expert advice to the Secretary of State for Health and the Health Research Authority.



The HRA needs lay members to share their views, so if you have experience of healthcare as a patient, a carer or a professional, and some experience working with data this could be the role for you. You will need a keen interest in healthcare data and a passion for making sure it's used legally, you'll have a keen eye for detail, enjoy solving problems and approach decision making with an open mind. For more information and to apply, contact communications@hra.nhs.uk

JRMO restarts non-Covid-19 research

Empowering research delivery staff to make decisions about the eligibility, suitability of and their capacity to reopen studies has been key to Barts Health reopening a sizeable chunk of its non-Covid studies after the suspension caused by the pandemic.

"We've taken a pragmatic approach to reopening studies with decisions made at local level, because we wanted to bring our staff with us on the journey," said Gerry Leonard, Director of Research Development at the trust.

Working with the NIHR and the Health Research Authority (HRA), the Trust has provided a framework for its staff to follow on reopening a study. This framework incorporates a checklist for researchers to follow. Once the checklist is completed, the trust's research governance team aims to action any requests within five days, though this can often be done sooner.

Dr Mays Jawad, R&D Governance Operations Manager, said there were mixed feelings about reopening studies, the vast majority of which were paused in the early stages of the pandemic. She said: "It was never the case that all our non-Covid studies were suspended. We did have some cancer studies remain open because some patients still needed their treatment as part of a trial.
"But I think it's fair to say that there was a mixture of relief and some apprehension when we were reopening studies, because there's so much to think about in a clinical trial. For example, is it safe for patients, do we have the staff to run it, or access to the facilities in clinical support services, such as CT scans, or is the clinical service even open to deliver the study?

"That's why, using the framework, informed by discussions we had with both the NIHR, whose own guidance was really good, and the HRA, who were really sensible in their own approach to reopening studies, such as giving us the ability to make most study amendments without prior notification, helped us to put the decision to open studies in the hands of our staff, which is what we wanted. We wanted to empower them to make that decision, to involve them in the dialogue.

So far, it's worked out really well. We knew that the clinical leads had all the information at their fingertips, so we left the decision to them with help from us when they needed it" said Dr Jawad.

Continuing research also meant that the trust could provide job security for staff. Gerry Leonard explained: "The financial consequences of studies not being open to recruitment, particularly in the case of commercial studies, can mean that it's people's jobs we are talking about because the funding doesn't come through if the study isn't recruiting. So it was really important to us to get studies open again."

Sometimes, drastic situations can mean much is learned. For the Barts Health research team, restarting studies after Covid -19 has been no exception to this rule. You can find out more about this work in the JRMO website.

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HRA Technical Assurances is expanding to accept further study types

From 30 September 2020, HRA Technical Assurances will be expanding its process to

further support sponsors/applicants and our reviewers:

- Pharmacy Assurance will be expanded to include all Phase I-III oncology and non-oncology studies through pharmacy assurance in England and Wales.
- For Radiation Assurance (all nations);
  - All studies involving general radiology will be accepted through Radiation Assurance (all nations).
  - Commercial sponsors will also be able to use the self-managed route for Radiation Assurance
  - HRA registered reviewers (MPEs and CREs) will be able to register to undertake reviews independently (as well as on behalf of an organisation) if they so choose.

Technical Assurances has played a key role in supporting the quick set up of Covid-19 research. Feedback during this time has identified the benefits of using the process to reduce queries, support capacity and capability, and to quickly/efficiently share information.

It is expected that NHS Sponsors use the technical assurance processes as they roll-out. If you sponsor CTIMPs or studies involving radiation, ensure your local reviewers are registered.

More information on these changes will be emailed out shortly and further details about this and our processes can be found on the HRA website.

If you have any specific questions relating to either Pharmacy or Radiation Assurance process, please contact the relevant team;
Pharmacy.assurance@hra.nhs.uk
Radiation.assurance@hra.nhs.uk

Make it Public – new HRA transparency strategy

The HRA launched its new strategy in July, and work continues to ensure information about all health and social care research – including Covid-19 research – is made publicly available to benefit patients, researchers and policymakers.

If you have yet to look at the strategy in detail it can be read it in full on the HRA website.

For a reminder about why the strategy is important, there is a five-minute video to watch

UK CRC Tissue Directory

Tissue samples held across the UK, in universities, hospitals and charities can be accessed using the UKCRC Tissue Directory. The Directory enables researchers to search over 200 UK human sample resources (tissue banks, biorepositories, biobanks, cohort studies, research tissue banks, etc.), to find relevant samples and data.

Using a specific disease term or searching 'fit and well' will enable you to find existing tissue samples or organisations that can collect bespoke collections. An A-Z of human sample resources is also available. The Directory is free to use, with discussions about sample access taking place directly with individual biobanks.

To find out more visit the UKCRC Tissue Directory or email contact@biobankinguk.org.

Leaving the EU: research implications

Perhaps somewhat buried under Covid-19 news, the UK has now left the EU and the final part of this, the transition period, concludes on 31 December 2020.

It should be borne in mind that the MHRA can only control what happens in the UK, not how the EU and its regulators deal with the UK. New guidance has been issued that will be effective from 1 January 2021 covering

research in the UK. In summary, the following is set out:

CTIMPS and ATMPS

- There will be no need to register new studies on EUDRACT
- All studies already registered, will need to complete results
- A new submission portal will exist for clinical trial applications.
- There may be a new safety reporting portal.
- Within the UK, the sponsor or legal representative can be in the UK or EEA.
- If in the EU, the sponsor or legal representative we will need to be within the EEA.
- New UK Marketing Authorisations will exist from 1 January 2021.
- Current Marketing Authorisations will be migrated and a UK MA established within 2 years.
- There is no significant change to ATMPS.
- Import-export delays are possible.

Devices:
- MDR and IVR abandoned and the UK will now create its own regulatory framework.
- CE marks remain active and will be accepted for a 2½ year transition.
- UKCA 'mark' can be used from 1 January 2021; this will be standard for new devices and become compulsory on 1 July 2023.

The latest MHRA guidance on medicines, medical devices and blood regulation and safety can be found online.

Changes to JRMO SOPS

The following SOP has been updated and released by the JRMO along with the supporting associated documents:

SOP 20, Archiving: Transferring research study records to Corporate Records Management v6.0
- AD1 Corporate Records Management guidelines v2.0

SOP 25, Informed Consent v7.0

SOP 27, JRMO Internal filing process v1.0
- AD1 Sponsor Oversight Files Guidance v1.0
- AD2 Monitoring visit filing checklist v1.0
- AD3 Legacy Records v1.0
- Template 1 GCP File spine template v3.0
- Template 2 GCP File Cover Template v2.0

SOP 31, Non-Compliance v4.0
- AD1 Non-Compliance Notification form v1.0
- AD2 Non-Compliance guidance document v1.0
- AD3 JRMO Root Cause Analysis Template v1.0
- AD4 JRMO Non Compliance Terms of Reference v2.0
- AD5 Non-Compliance notification of closure certificate v1.0

SOP 38b Electronic data management systems for MHRA-regulated studies v5.0

- AD 1 Requirements and specifications v2.0
- AD 2 CRF design guidance v5.
- AD 3 Template Test Plan v1.0
- AD 4 Test Script Template v1.0
- AD 5 Database Change Control Log v2.0
- AD 6 Test Report Template v1.0
- AD 7 End of study activities v1.0 05.10.20

SOP 40, Vendor assessments v4.0
- AD1: GCP & Governance compliance sample questions v2.0

The following guidance documents have also been released:

- Guidance for site study teams and sponsors for remote monitoring and source data verification within Barts Health NHS Trust v2.0
- EDGE Manual v2.0

These documents can all be accessed on the JRMO website.

Ongoing EDGE data migration

The JRMO has now migrated data from ReDA to EDGE (Local Portfolio Management System) and is cleaning that data to improve its accuracy and timeliness. The aim is to keep the system as up-to-date as possible with study details and status, annual progress reports, recruitment target figures, accruals achieved and notes on these where relevant, along with study closures and the registration of clinical trials on public databases.

This will help with the performance and initiating and delivery report (PID) submission, made quarterly to the NIHR.

EDGE champions working group

A new working group has been set up to champion EDGE across the organisation. Current 'champions' attended this year's EDGE conference 2020 which was held in Farnborough International Exhibition and Conference centre. The idea is to share best practice and best utilise EDGE (e.g. study set up, delivery, finance and QC activities) to shape the future of EDGE at a national level.

If you would like to join this group then please contact research.governance@qmul.ac.uk.

If you are not familiar with EDGE or would like to receive further training or advice on aspects of EDGE you may not yet have discovered, please contact Zabed Ahmed in the JRMO at research.governance@qmul.ac.uk.

Our research

World's first brain aneurysm surgery on awake patient takes place at the Royal London Hospital

Interventional neuroradiologists at Barts Health have performed the world's first successful brain aneurysm surgery with a Woven EndoBridge (WEB) device while a patient was awake.

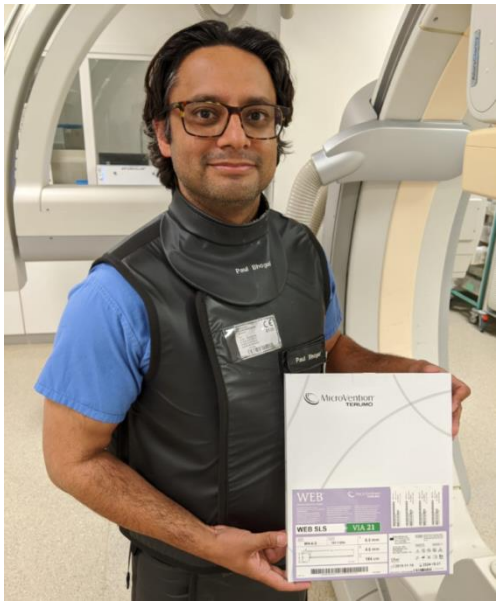
Celine Dawes, 64, from Chingford, was rushed to A&E at The Royal London Hospital after suffering from a headache and stiff neck for 72 hours. It was suspected that she had a ruptured brain aneurysm and was referred to the neurosurgical team. An aneurysm is a bulge in a blood vessel caused by a weakness in the blood vessel wall. This can lead to a subarachnoid haemorrhage, where bleeding caused by the ruptured aneurysm can cause extensive brain damage, vomiting, severe headaches and even death.
Further investigation showed that Celine would need surgery using a WEB device to stop the aneurysm from rupturing again – a treatment performed by interventional neuroradiologists at the hospital. A WEB device is a tiny, super-soft, cage-like device that is implanted into aneurysms to stop blood flowing into it and prevents the aneurysm from rupturing. Typically, this procedure is carried out under general anaesthetic to prevent the patient from moving during the operation.

However, Celine was at high risk of cardiac and pulmonary complications from the general anaesthetic. There were also concerns that she would need post-procedural respiratory support and would, in the worst-case scenario, require prolonged ventilation on the intensive care unit.

The team decided to use local anaesthetic instead. They gently fixed Celine's head using straps and prepared the equipment and medication to switch over to general anaesthetic if needed.

The aneurysm was successfully closed using only local anaesthetic without complication. It took approximately 35 minutes and Celine was sent home seven days later.

Celine said: "The surgeon was fantastic. We are so grateful to Barts Health and all the team." Although the procedure was not painful, Celine did note that she felt 'little tingles' in the front of her head and that although she was frightened, to begin with, "I thought, he's going to save my life and I kept that in my mind," she added.



Dr Paul Bhogal, the consultant interventional neuroradiologist who operated on Celine, said: “Ruptured aneurysms are often smaller than 5mm and even a 1mm error can result in catastrophe. Performing this treatment was stressful but I had an excellent team around me and Celine was an exceptional patient who stayed perfectly still during the procedure.”

In light of this success, the journal Interventional Neuroradiology has published a report on the procedure, It is now recommending local anaesthetic be used in future cases where patients are similarly at risk.

Tetrandrine as a Potential Therapeutic Agent for Covid-19

Dr Robin. N. Poston from Centre for Microvascular Research, WHRI has recently published a new review paper concerning a potential treatment for Covid-19. The work he co-authored with Dr Paula Heister from the University of Cambridge was included in the Journal of Pharmacological Research and Perspectives and can be found attached to the newsletter.

The focus in this review on the two-pore channel 2 (TPC2) arises from previous research by Dr Heister which led to a DPhil degree at Oxford University. It is a calcium channel which is present in cellular endosomes. The review considers the recent evidence that the SARS-CoV-2 virus requires this channel for replication, and proposes that it might be a suitable target for therapeutic intervention. The small molecule tetrandrine can block this channel, and its properties are considered as to whether it might be a suitable therapeutic agent. Tetrandrine can block SARS-CoV-2 replication at low concentrations in cultured cells.

Tetrandrine has a long history of use in China, extending back into Chinese traditional medicine, where it was used in an impure form as a plant extract for the treatment of a remarkably wide range of diseases. Modern study has shown that it has an anti-inflammatory action, including inhibition of cytokine release from macrophages. Clinical trials have shown that it can treat industrial lung disease successfully, for which it is currently licensed in China. It remains little known elsewhere in the world.

Prestigious fellowship awarded from lessons learnt from Covid-19.

Dr Stamatina Iliodromiti, Senior Lecturer in Women’s Health and Reproductive Medicine, has been awarded a prestigious THIS Institute Fellowship for two years proposing work on creating learning maternity systems from the lessons learnt from Covid-19.

The pandemic has changed the way that maternity care is delivered but also created opportunities for electronic information to be accessed faster. The project aims to develop a system to assess how the pandemic affected maternity services, learn from the lessons and ultimately sustain the tool to monitor and innovate maternity care long term. The project will create a "traffic light system" that will alert when a unit performs worse than others. This way inequalities within maternity units will become smaller and childbirth will be safe across all units in the UK.

This work has the support of RCOG, RCM and CQC, and as one of the priorities for NHS England provides a great opportunity to

further strengthen the reputation of the SMD within population health research.'

Focus on ophthalmology research

The Whipps Cross/ Newham Ophthalmology Research Group has developed a new approach to promoting themselves and their research.

Firstly, they have created a regular Research Bulletin which you can be sent by contacting Research Lead Samantha Gordon at samanthagordon1@nhs.net

Secondly, they are looking for a new, more user-friendly name for themselves. They think that the 'Whipps Cross/ Newham Ophthalmology Research Group', or WNORG, looks a bit like 'wrong' with the letters jumbled up so if you have a better suggestion get in touch with Samantha. A prize awaits the best suggestion!

Publications, presentations and posters around the world by our ophthalmology team:

- Consultant Marwan Ghabra presented at the virtual World Ophthalmology Congress in Johannesburg speaking about his work in the creation of his innovative radial corneal inlay and the management of traumatic cataract. He also spoke at the Syrian Ophthalmological Society Summer Meeting on Cataract management and IOL strength calculation in Keratoconus.
- Consultants Hadi Zambarakji, Cordelia McKechnie and Panagiotis Georgoudis published Stellate Non-Hereditary Idiopathic Foveomacular Retinoschisis in a Female Patient: Case report and brief literature review.

The Research Team meets approximately once a month. If you are interested in their work or would like help or advice with getting a research project started, come and see us and we can point you in the right direction.

Research lead: Samantha Gordon
PI scheme lead: Sudeshna Patra
Research Nurse/co-ordinator: Khurshid Ahmed
Lead nurse Taurai Matare

St Bartholomew's registrar scoops prestigious cardiology prize for MRI discovery

Dr Nay Aung, a specialist registrar at St Bartholomew's Hospital, has been awarded the Royal Society of Medicine President's prize for best cardiology PhD project. He presented his doctoral thesis on the genetic make-up of the heart using magnetic resonance imaging (MRI).

The work discovered 14 regions in the human genome that regulate individual differences in the structure of the heart. It also produced personalised genetic risk scores that can be used to spot people at risk of heart failure.

The award panel recognised Dr Aung's efforts in applying artificial intelligence (AI) to analyse the MRI scans of 17,000 volunteers and performing an in-depth evaluation of genetic data to uncover the genetic basis of heart structure and function.

The study was conducted in the UK Biobank population imaging study, in collaboration with the University of Oxford and Multi-Ethnic Study of Atherosclerosis from the USA.

Alongside his role within the Barts Heart Centre at St Bartholomew's Hospital, Dr Aung is also a National Institute for Health Research (NIHR) academic clinical lecturer.

He was previously awarded a Wellcome Trust Research Training Fellowship to pursue his doctoral degree under the supervision of Professors Steffen Petersen and Patricia Munroe at Queen Mary University of London. His research interests include the application of genomics to dissect the biology of common and complex cardiovascular diseases, development of personalised risk prediction algorithms and automation of image analysis by artificial intelligence.

Immunotherapy Improves Survival in Patients with Advanced Bladder Cancer

An immunotherapy drug called 'avelumab' has been shown to significantly improve survival in patients with the most common type of bladder cancer, according to results from a phase III clinical trial led by Queen Mary University of London and Barts Cancer Centre, UK.

This is the first time an immune therapy has resulted in a survival advantage in this setting in bladder cancer, and will potentially benefit thousands of patients each year.

The results were published in the New England Journal of Medicine and found that avelumab led to a 31 per cent reduction in risk of death of bladder cancer and extended median survival in advanced bladder cancer by more than seven months.

Approximately 550,000 new cases of bladder cancer are diagnosed each year (10,200 of which are in the UK), making it the tenth most common cancer worldwide. This trial focused on the group of these patients whose cancer had spread beyond the bladder (advanced or stage 4 disease), which is difficult to treat and results in more than 200,000 deaths each year worldwide.

Treatment combination involving additional Vitamin A shown to be safe for patients

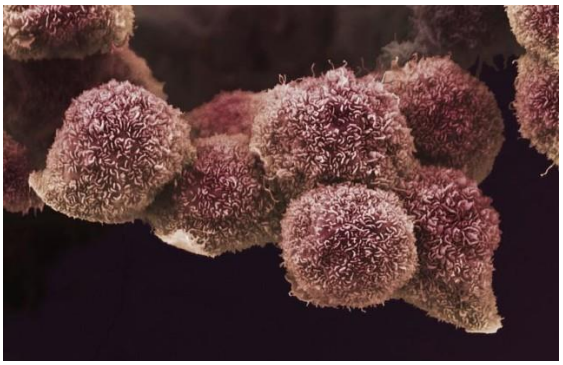
Following the encouraging results of this phase I trial (STARPAC), published in Nature Communications, a second clinical trial called STARPAC2 will now investigate whether the addition of this form of vitamin A, called ATRA, to standard chemotherapy can enhance the efficacy of treatment in patients with pancreatic cancer.

There are around 10,300 new pancreatic cancer cases diagnosed in the UK each year and although this accounts for only 3 per cent of the total cancer cases, pancreatic cancer has the lowest survival rate of all common cancers. It sadly claims the lives of approximately 9,200 people each year, and only around 7 per cent of those diagnosed with this cancer type survive for 5 years or more. It is believed that pancreatic cancer will be the second most common cause of cancer mortality (after lung cancer) by 2030.

Chemotherapy and radiotherapy alone are relatively unsuccessful in treating pancreatic cancer, and while surgery to remove the tumour offers the best chance of survival, a lack of symptoms in the early stages of the disease means most patients are diagnosed when the cancer is advanced. A novel approach that can target the cancer more effectively is urgently required.

STARPAC was launched following research conducted by Professor Kocher's laboratory, which found that using ATRA to treat a particular type of cell, known as stellate cells, within pancreatic tumours, restricted tumour growth. Stellate cells have an important role in normal tissue formation; however, they become corrupted in cancer and help to form an impenetrable barrier, known as the stroma, around the pancreatic tumour.

Treating stellate cells with ATRA (a pre-existing drug used for the treatment of acne and some types of leukaemia) was found to restore the vitamin A content of the cells, converting them from tumour-promoting cells to cells which have an anti-cancer effect. By combining this drug with chemotherapy in preclinical models, the team were able to disrupt the communication between the cancer cells and the surrounding stromal cells, leading to a reduction in cancer cell proliferation and invasion.



To determine the safety of this treatment combination in the clinic, patients were recruited to the phase I STARPAC trial from Barts Health NHS Trust, Imperial College Healthcare NHS Trust, Guys and St Thomas' NHS Foundation Trust and Cambridge University Hospitals NHS Foundation Trust. The trial showed that the addition of ATRA to standard chemotherapy had no additional harmful effects in patients when compared with the standard chemotherapy alone, and also demonstrated that the combination does seem to modify the pancreatic cancer stroma in patients.

Hemant Kocher, Professor of Liver and Pancreas Surgery at Queen Mary's Barts Cancer Institute (BCI) and Consultant Liver and Pancreas Surgeon at Barts Health NHS Trust, said: "It is pleasing to demonstrate that changes in the stroma (or scar tissue) surrounding cancer can be used to potentially change pancreatic cancer behaviour. This proof-of-principle that the stroma can be targeted in patients is a novel and exciting discovery, and this approach may also be able to be applied to other cancers and diseases where the stroma performs a critical role in disease progression."

The trial was performed in collaboration with the Institute of Cancer Research, London and the Cancer Research UK Cambridge Institute and funded by the Medical Research Council (MRC) with support from Celgene Corporation.

Queen Mary scientists develop new material for longer-lasting fuel cells

New research, involving scientists at Queen Mary University of London, suggests that graphene could be used to make more durable hydrogen fuel cells for cars.

In the study, published today in the journal *Nanoscale*, researchers produced graphene via a special, scalable technique and used it to develop hydrogen fuel cell catalysts. They showed that this new type of graphene-based catalyst was more durable than commercially available catalysts and matched their performance.

Hydrogen fuel cells convert chemical energy into electrical power by combining hydrogen and oxygen with the aid of catalysts. As the only by-product of the reaction is water, they provide an efficient and environmentally friendly power source.
Platinum is the most widely used catalyst for these fuel cells, but its high cost is a big problem for the commercialisation of hydrogen fuel cells. To address this issue, commercial catalysts are typically made by decorating tiny nanoparticles of platinum onto a cheaper carbon framework. However, the poor durability of the material greatly reduces the lifetime of current fuel cells. Previous research has suggested graphene could be an ideal support material for fuel cells due to its corrosion resistance, high surface area and high conductivity. However, the graphene used in the majority of experiments to-date contains many defects, meaning that the predicted improved resistance has not yet been achieved.

The technique described in the study produces high-quality graphene decorated with platinum nanoparticles in a one-pot synthesis. This process could be scaled up for mass production, opening up the use of graphene-based catalysts for widespread energy applications. The researchers confirmed the durability of the graphene-based catalyst using a type of test based on those recommended by the US Department of Energy (DoE), known as accelerated stress tests. Using these tests, the scientists showed that loss in activity over the same testing period was around 30 per cent lower in the newly developed graphene-based catalyst, compared with commercial catalysts.
Gyen Ming Angel, PhD student and first author of the study, from University College London (UCL), said: "The DoE sets tests and targets for fuel cell durability, with one accelerated stress test to simulate normal operating conditions and one to simulate the high voltages experienced when starting up and shutting down the fuel cell.

Dr Patrick Cullen, Lecturer in Renewable Energy from Queen Mary University of London, said: "Over the years, there's been a lot of hype around graphene and the vast number of promising applications for this material. However, the research community is still waiting for its full potential to be realised, and this has led to some negativity around this proposed 'wonder material'. This view isn't helped by the fact that many research studies on graphene use defective versions of graphene. We hope that this paper can restore faith in graphene and show that this material holds great potential for improving technology, like fuel cells, now and in the future."

For more information see the publication: Realising the electrochemical stability of graphene: scalable synthesis of ultra-durable platinum catalyst for the oxygen reduction reaction'.

Events

Podcast series on complex innovative design trials

The HRA has teamed up with the National Institute for Health Research (NIHR) and the Experimental Cancer Medicine Centre (ECMC) to produce a series of 11 podcasts looking at Complex Innovative Design (CID) trials. The podcasts explore innovative trial design and delivery and look at changes to the clinical research landscape as clinical trials evolve to find new, faster and more efficient ways to bring new treatments to patients.

For more information visit the HRA website.

Webinar on conducting PPI virtually 23 October, 2 pm

Esther van Vliet the Patient and Public Involvement and Engagement Officer – NIHR School for Primary Care Research together with the NIHR Academy is organising a webinar for researchers on conducting Patient and Public Involvement virtually. This webinar will be relevant to you if you are an NIHR funded researcher or accountable for PPI and are interested in learning how to conduct PPI in research virtually.

The Webinar will take place on 23 October at 2 pm, you can find out more and register online.

RDS London drop-in sessions

Our drop-in sessions are an opportunity for you to have an informal chat with one of our advisers to get advice on your research idea or grant application and find out more about the support we provide.

The next East London session is on 27 November, 12-2 pm will take place on a call-back basis. Please submit your request on this call-back form in advance and they will phone back between 12:00 – 14:00.

To make the most of your time with their advisers they recommend that applicants have to hand a brief overview of their research, outlining the areas in which they are having difficulties and where they would like support and feedback.

If you cannot make a drop-in session, please don't wait to get advice: fill out our more detailed request support form and an adviser will provide you with initial feedback within two weeks.

Training

JRMO research governance training

As a result of the Covid-19 pandemic, JRMO GCP training is currently being delivered online, using a mix of MS Teams tutorial, pre-reading and undertaking the NIHR Introduction to GCP. This approach helps keep the online element shorter and more focussed on Barts Health and Queen Mary requirements, CI responsibilities and JRMO SOPs. Please note that places on these courses are limited to 25 people per session.

Barts Health staff and Queen Mary staff and students should book research governance training using the Queen Mary CPD online booking system, but please note you will need a QMUL email address to do this from 5 October 2020.

If you are already booked on a course, you will not lose your place if you have an NHS.NET email address. However, if you wish to join a GCP or Governance course or book onto one of these in the future and you do not have a QMUL email account, please

email cpd@qmul.ac.uk and the team will manually add you to the course.

JRMO courses are also open to staff working on NIHR portfolio studies across North Thames free of charge and to external participants for a fee. Individuals in either group should contact research.governance@qmul.ac.uk for course details and fee information.

Please note the following:

- New users need to register before booking (select the register button on the site and follow the instructions) with a Queen Mary email address
- All users will be asked to select an appropriate course
- Please ensure that you read the details of each course and meet the description of the target audience;
- Select a date and course to meet your needs
- Once you have made your booking, you will receive an automated email to confirm your place
- We can only accept booking through the above route

More detail on all these courses is available on the 'What training do I need' webpage.

WFC Training

Due to current restrictions on travel and group meetings, it is not possible to deliver face-to-face training at the moment, but WFC can arrange online training sessions or take face-to-face bookings for later in the year if preferred.

WFC recognises that your needs are unique and an off-the-shelf solution is rarely sufficient. As such, we offer our selection of training, education and workforce development courses on a hosted basis only.

Hosted courses are capped at 15 delegates (face-to-face) to ensure that an entire team can attend. Hosted courses are delivered upon the request of a client; the client provides the training venue and the course is scheduled in accordance with their needs. The content of the course is developed to be fully bespoke to the client.

Contact WFC to discuss your bespoke needs for 2020.

Recent courses have included:

- Understanding and applying AcoRD principles (Including a module covering the use of the SoECAT and NHS England ETC process)
- Informed consent for research
- Clinical protocol development
- Principles of clinical research involving human subjects
- Regulatory compliance in clinical research
- Effective sponsorship of research

Free Courses in England

The Free Courses in England website is the home of flexible learning. It works to support the professional development of individuals and businesses across England with free online courses. The following are just some of the courses you can link onto from its website:

- Digital Skills Level 1
- Technology-based Solutions Within a Health and Social Care Setting
- Understanding Personal Care Needs
- Awareness of Bullying in Children and Young People
- Event Planning
- Understanding Stewarding at Spectator Events
- Improving Service User Experience in Health and Social Care
- Digital Skills for Work
- Understanding Workplace Violence and Harassment
- Awareness of Mental Health Problems
- Counselling Skills
- Understanding Autism
- Principles of Team Leading
- Principles of Business Administration

Click on the links above to learn more. All of these courses are fully accredited by NCFE and successful completers will be awarded a formal qualification. They are also all funded, meaning there is no cost to you whatsoever. They are an excellent way of providing valuable professional development. If you need to discuss how the team can support you in developing your skill sets, please call 0800 001 5910.

Research funding

NIHR funding

- 20/34 NIHR Evidence Synthesis Programme Grant Scheme 2020
  Closes: 13:00 on 12 October 2020
  The NIHR Evidence Synthesis Programme Grant Scheme (formerly the Cochrane Programme Grant scheme) is now accepting expressions of interest for their 2020 round.
- 20/13 Mechanisms of action of health interventions
  Closes: 13:00 on 3 November 2020
  The Efficacy and Mechanism Evaluation Programme is accepting stage 2 applications to their commissioned workstream for this funding opportunity.
- Research for Patient Benefit Programme - Competition 43
  Closes: 13:00 on 11 November 2020
  Funding Opportunities Post - Competition 43
- 20/68 Targeted mass media interventions for Black, Asian and Minority Ethnic populations
  Closes: 13:00 on 17 November 2020
  The Public Health Research Programme (PHR) accepting stage 1 applications to their commissioned workstream for this topic.
- 20/83 Public Health Research Programme researcher-led
  Closes: 13:00 on 17 November 2020
  The Public Health Research Programme are accepting stage 1 applications to their researcher-led workstream.
- 20/46 Health impacts of housing led interventions for homeless people
  Closes: 13:00 on 17 November 2020
  The Public Health Research Programme (PHR) accepting stage 1 applications to their commissioned workstream for this topic.
- 20/47 Interventions to improve the uptake of the Influenza vaccination in carers
  Closes: 13:00 on 17 November 2020
  The Public Health Research Programme (PHR) accepting stage 1 applications to their commissioned workstream for this topic.
- 20/48 Food insecurity – health impacts and mitigation
  Closes: 13:00 on 17 November 2020
  The Public Health Research Programme (PHR) accepting stage 1 applications to their commissioned workstream for this topic.
- NIHR Global Health Research Units
  Closes: 13:00 on 18 November 2020
  These awards will provide funding to a well-established, equitable research partnership or network of universities and research institutes in LMICs and the UK with an existing track record of delivering internationally recognised applied global health research.
- NIHR Global Health Research Groups
  Closes: 13:00 on 18 November 2020
  These awards will provide funding to collaborations of specialist researchers within universities and research institutes in LMICs and the UK who wish to establish new programmes of applied health research.
- 20/58 Interventions in Paediatric Care
  Closes: 13:00 on 1 December 2020
  The Efficacy and Mechanism Evaluation Programme is accepting stage 1 applications for this primary research topic.
- 20/57 Novel strategies and interventions to reduce overtreatment
  Closes: 13:00 on 1 December 2020
  The Efficacy and Mechanism Evaluation Programme is accepting stage 1 applications for this primary research topic.
- 20/86 Efficacy and Mechanism Evaluation Programme Researcher-led
  Closes: 13:00 on 1 December 2020
  The Efficacy and Mechanism Evaluation Programme is accepting stage 1 applications to their researcher-led workstream.
- 20/72 Oxybutynin for the treatment of vasomotor symptoms associated with menopause *Australian collaborations welcome*
  Closes: 13:00 on 2 December 2020
  The Health Technology Assessment Programme is accepting stage 1 applications to their commissioned workstream for this primary research topic.
- 20/73 Surgery for endometrioma in women undergoing IVF *Australian collaborations welcome*
  Closes: 13:00 on 2 December 2020

The Health Technology Assessment Programme is accepting stage 1 applications to their commissioned workstream for this primary research topic.

- 20/74 Antidepressants for post-stroke emotionalism *Australian collaborations welcome*
  Closes: 13:00 on 2 December 2020
  The Health Technology Assessment Programme is accepting stage 1 applications to their commissioned workstream for this primary research topic.
- 20/22 Rectus sheath blockade in emergency laparotomy
  Closes: 13:00 on 2 December 2020
  The Health Technology Assessment Programme is accepting stage 1 applications to their commissioned workstream for this primary research topic.
- 20/96 Partial vs total nephrectomy for clinically localised renal cell carcinoma *Australian collaborations welcome*
  Closes: 13:00 on 2 December 2020
  The Health Technology Assessment Programme is accepting stage 1 applications to their commissioned workstream for this primary research topic.
- Travel and subsistence funding to support LMIC engagement during the COVID-19 outbreak
  Closes: 31 December 2020
  These awards will provide travel and subsistence funding to appropriately qualified public health professionals, clinicians and academics who wish to offer science and technical advice to support the immediate response to COVID-19 in low and middle-income countries.
- Public Health Research Programme Rapid Funding Scheme
  Closes: 31 December 2020
  The RFS has been set up to provide the public health research community with an accelerated route to funding for small-scale, short and time-sensitive proposals that demonstrate a need for a rapid commissioning process to be followed.
- Cochrane review gold open access scheme
  Closes: 1 January 2021
  Cochrane Review Authors can apply to have their reviews published under Gold open access, meaning that they are instantly and freely open for all users to access on the Cochrane Library from the date of publication.
- 20/28 Repair and rehabilitation of hand flexor tendon injury
  Closes: 13:00 on 6 January 2021
  The Health Technology Assessment Programme is accepting stage 1 applications to their commissioned workstream for this broad brief topic.
- 20/89 Health Technology Assessment Programme Researcher-led (evidence synthesis)
  Closes: 13:00 on 6 January 2021
  The Health Technology Assessment Programme is accepting stage 1 applications to their researcher-led workstream.
- 20/90 Health Technology Assessment Programme Researcher-led (primary research)
  Closes: 13:00 on 6 January 2021
  The Health Technology Assessment Programme is accepting stage 1 applications to their researcher-led workstream.

Information on all NHIR funding can be found on the NIHR Funding website.

MRC funding

- Joint Global Health Trials (JGHT) Call 11 – outline stage
  Closing date: 8 Oct 2020 16:00 GMT+1
  This call funds late-stage clinical and health intervention trials evaluating efficacy and effectiveness that will contribute to the improvement of health in low and middle-income countries (LMICs). Applicants based at eligible research organisations in LMICs and the UK are eligible to apply. Please note: the trial development grant funding opportunity will be launched in October 2020.
- MRC Applied Global Health Research Board
  Closing date: 13 Oct 2020 16:00 GMT+1
  The Applied Global Health Research Board is a standing opportunity with deadlines every 6 months.
- Strategic Priorities Fund: Preparing for Future Clean Air Challenges – Interdisciplinary research and innovation consortia
  Closing date: 15 Oct 2020 16:00 GMT+1
  UK Research and Innovation (UKRI) invites proposals for interdisciplinary research and innovation consortia under

the second wave of the Strategic Priorities Fund (SPF) Clean Air Programme.

- Neuroimmunology Data Generation Award for Early Career Researchers
  Closing date: 22 Oct 2020 16:00 GMT+1
  This call is for pilot, hypothesis-driven, mechanistic studies in the neuroimmunology space Applications must include at least one researcher with expertise in neuroscience/mental health and another with expertise in immunology. This award is for early-career stage researchers.
- Clinical Academic Research Partnerships Round 3: Announcement
  Closing date: 29 Oct 2020 16:00 GMT
  In 2019 the Medical Research Council (MRC) in partnership with the National Institute for Health Research (NIHR) ran two pilot rounds of the Clinical Academic Research Partnerships (CARP) scheme. The response to this scheme was overwhelmingly positive and a commitment has been made to launch Round 3 of CARP in August 2020.
- Ecology and Evolution of Infectious Diseases (EEID) Program 2020 – US-UK, China and Israel call for proposals
  Closing date: 18 Nov 2020 17:00 GMT
  UKRI, in collaboration with partners, are pleased to announce a call for international partnerships involving researchers from the UK, and US, China and/or Israel under the Ecology and Evolution of Infectious Diseases programme (EEID).
- UK-Canada Globalink Doctoral Exchange Scheme
  Closing date: 8 Dec 2020 16:00 GMT
  An exciting opportunity for UKRI and Canadian doctoral students to participate in a UK-Canada research exchange scheme.
- UKRI open call for research and innovation ideas to address Covid-19
  Closing date: 31 Dec 2020 16:00 GMT
  Proposals are invited for short-term projects addressing and mitigating the health, social, economic, cultural and environmental impacts of the COVID-19 outbreak.

British Academy APEX awards

APEX awards are a funding opportunity designed to promote collaboration across academic discipline. With the Leverhulme Trust, the British Academy is inviting applications from established (independent) researchers employed at a UK university, or not-for-profit research institution, with a strong track record in their respective area, an exciting opportunity to pursue genuine interdisciplinary and curiosity-driven research to benefit wider society. Successful applicants will be expected to work in collaboration with relevant researchers from other disciplines. Applications must be submitted via the Royal Society's electronic grant application system Flexi-Grant®.

Closing date: **29 October 2020 (15:00 UK time).** To find out more please contact: apex@royalsociety.org

British Academy / Wolfson Fellowships

The British Academy is now inviting applications to the British Academy / Wolfson Fellowships. The application form is available online on the Flexi-Grant Application system. These Fellowships provide early-career academics with the most valuable commodity – time – by releasing them from some of their administration and teaching duties to pursue their research, along with funding for public engagement and travel. The award duration is three years and is designed to support early-career researchers who show exceptional talent in both research and public engagement, emphasising and demonstrating the importance of academic research and creative thought at a time of rapid political and societal change.

Applicants should use the Flexi-Grant application system. Application deadline: 5 pm on 25 November 2020.

Research professional

Research Professional (formerly Research Research) has an easy-to-use sign-up process: http://www.researchprofessional.com/

Funding information: Up-to-the minute-information about all types of research funding can be found on the Research Professional website – to access this click here (account and password required).