George's Academic Training (GAT) Newsletter May 2022 12th Edition

Welcome to St George's!

New Starters

Dr Yanushi Dullewe Wijeyeratne, BMBS BMedSci(Hons) MRCP PhD, NIHR Clinical Lecturer in Cardiology

Dr Nuria Sanchez Clemente – NIHR Clinical Lecturer in paediatric infectious diseases and immunology

Twitter

This account is open to showcase the opportunities available for those at St George's and to share the amazing work being done by our clinical academic trainees. Have a look and follow, share and retweet! Click on the twitter logo to be redirected to our Twitter.
Please follow our twitter page for regular updates and news

Welcome to New Starters

Dr Yanushi Dullewe Wijeyeratne

BMBS BMedSci(Hons) MRCP PhD,
NIHR Clinical Lecturer in Cardiology

NEW

Dr Yanushi Dullewe Wijeyeratne is a Cardiology Specialty Registrar and ST7 Fellow in Electrophysiology and Devices. She graduated from University of Nottingham in 2009 and was previously awarded an NIHR Academic Clinical Fellowship in Cardiology at St George's in 2012, after which she became a Clinical Research Fellow and then an Honorary Clinical Lecturer at the University. In 2021, she completed her PhD in cardiac genetics and use of induced pluripotent stem cells to model inherited heart disease. She was recently awarded the NIHR Clinical Lectureship in Cardiology at St George's. She will be commencing her lectureship imminently after her maternity leave.

The NIHR Clinical Lectureship will enable Dr Wijeyeratne to continue her research on inherited cardiac conditions whilst training in clinical Cardiac Electrophysiology and Devices. Her research will be focussed on the investigation of the complex genetic architecture underlying inherited arrhythmia syndromes predisposing to sudden death in young adults.

NEW

Dr Nuria Sanchez Clemente

– NIHR Clinical Lecturer in Paediatric Infectious Diseases and Immunology

I am a paediatric registrar and NIHR Academic Clinical Lecturer in paediatric infection and immunity at St. George's University, London.
My academic and clinical interests are around congenital infections, neglected tropical diseases, health inequalities and migrant health.

In 2010, as part of an MSc in Tropical Medicine (LSHTM) I travelled to the Peruvian Andes to undertake the first systematic review on Peruvian Bartonellosis.
From 2014-2017 I lived in Brazil where I did my PhD on congenital Zika syndrome, studying the perinatal outcomes of a Zika pregnancy cohort in the state of Sao Paulo. Since then, I have continued to work with teams in Brazil, LSHTM and WHO to study the long term consequences for children born with congenital Zika infection and the wider impacts on their families and societies.
My more recent academic and clinical interests are around migrant health and health inequalities and I am studying large primary care datasets in order to compare patterns of paediatric primary and secondary healthcare usage between migrants and non-migrants in the UK. As a volunteer with Doctors of the World, I have also been analysing maternal and postnatal outcomes of undocumented migrants in the UK.
In the last year I have also been working on the 'Respond' Refugee Family Project at UCLH which has involved qualitative research and the design of pathways for newly arrived asylum seeking children and young people to better understand and meet their needs in terms of infectious disease screening, mental health assessments and safeguarding.
During my ACL, I also plan to work with the UKHSA to study current patterns of COVID and primary immunisation uptake in the UK by deprivation index and ethnicity.

News from our Trainees

Dr Julia Zöllner

– NIHR Academic Clinical Fellow (ACF) Obs and Gynae

Congratulations to Dr Julia Zöllner, Academic Clinical Fellow – Obs and Gynae. Julia has been awarded a NIHR Clinical Lecturer post at UCL with an award start date of April 2022. Julia's current research focusses on developing a polygenic risk score for predicting gestational diabetes in early pregnancy in British Bangladeshi and Pakistani women. She is interested in bridging the gap of ethnic disparity in genomic medicine.

We asked Julia to reflect on her academic pathway and how she arrived at her current research interest:-

"My interest in research was fuelled by a desire to improve women's health outcomes. I enjoyed interrogating the science behind unanswered questions. I therefore after my ST2 training completed my PhD at Imperial College London. I explored the role of nitric oxide signalling in sepsis in pregnancy. To bridge the time to senior training I was lucky to be awarded a post-doctoral Academic Clinical Fellowship (ACF) at St George's University. Whilst trying to establish an independent research career, I started to develop an interest in genomic medicine specifically advanced bioinformatics. I dedicated my ACF to develop my statistical and genetic analysis skills. I collaborated with King's College London and Queen Mary University London to explore the genetic suscpetibitly of intrahepatic cholestasis in pregnancy using a distinct south Asian cohort (Genes and Health). My interest lies in the translational applications of OMICS technologies for the early detection and personalised management of women with gestational syndromes. Whilst completing my ACF I explored funding and training opportunities as well as mentoring and leadership schemes offered by the NIHR. I took advantage of all research training offered at St George's including a HEE funded PgCert in Genomic Medicine. Subsequently, I was awarded a Clinical Lecturer post to pursue my genomic research further. Bridging the early post-doctoral phase is difficult and there are not many schemes available therefore I would recommend choosing wisely where to spend your early post-doctoral research time. Remain open minded as well as approach others academic leaders for mentorship support. Many continue after their PhD with similar research interests but remember you can change direction and explore other areas that may interest you. Finally, use the opportunity to develop other skill sets to broaden your academic expertise. Perseverance and the ability to get up again when things go wrong is important. "

Dr Camilla Clark

– NIHR Clinical Lecturer (CL) – Neurology

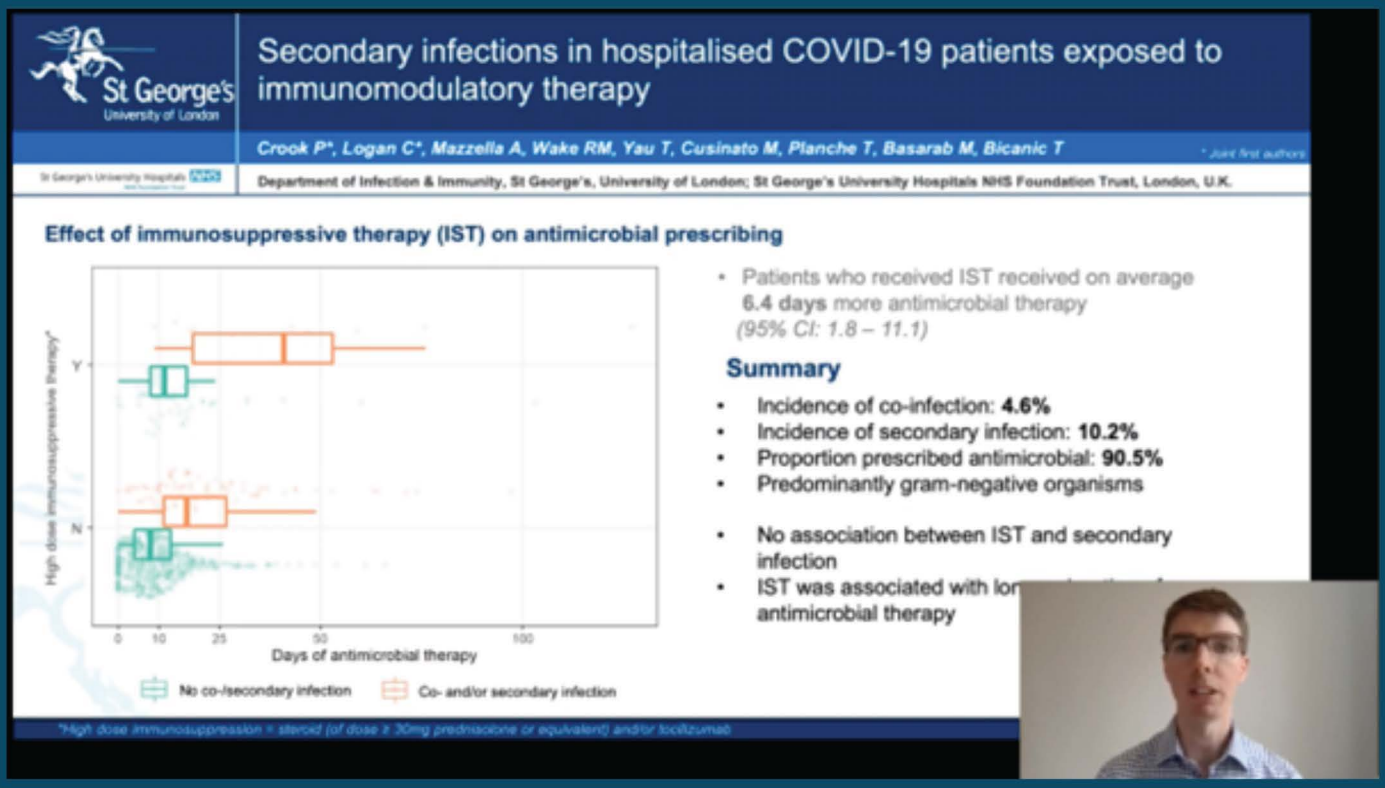
Dr Camilla Clark NIHR Clinical Lecturer – Neurology was awarded an Academy of Medical Sciences Starter Grant (circa £30 000) for her project entitled "How we understand our emotions: Is alexithymia following traumatic brain injury a generalised failure of interoception?". My project will broadly examine the processes for understanding our emotions and how they go wrong after a traumatic brain injury (TBI). One common example of emotional disturbance after head injury is a state called alexithymia or difficulty understanding one's own emotions. Emotional and social dysfunction are underinvestigated in TBI. These behaviours are amongst the most frequent and debilitating consequences of head injury for patients and caregivers. Many of the mechanisms that result in the cognitive, emotional and neuro-behavioural consequences of TBI are unclear and poorly defined.

We interpret our bodily signals by a process called interoception. Interoception refers to the interaction of physical signals with the brain, generating such diverse states as anger, fear, fatigue and hunger. The signals can be emotional or non-emotional. I want to understand whether there is a fundamental problem with processing all physical signals or a specific problem with processing signals relating to emotion in patients with TBI. I will approach this by assessing brain-body interactions using emotional physiological signals (galvanic skin response) and non-emotional signals (heartbeat at rest). I will be using neuroimaging techniques to correlate impaired sensitivity to bodily signals with changes in grey matter and white matter connections from key hubs that we know are important for interoception; the anterior cingulate and the anterior insula. This approach aims to directly link brain structure and function to behaviour across the spectrum of injury severity. The aim is to provide a framework to understand a broad range of symptoms in TBI.

Dr Peter Crook – NIHR Academic Clinical Fellow (ACF) – Infectious Diseases

I was lucky to present an e-poster at the recent European Congress of Clinical Microbiology and Infectious Diseases (ECCMID). With the conference taking place in Lisbon, I took advantage of the blended format and created a video podcast using SGUL's subscription to Panopto®. This was a novel format for me and a good opportunity to develop my skills in virtual presentations. I was able to attend the 4-day conference online and hear a range of speakers from the world of Microbiology and Infectious Diseases.

Our poster was the result of a collaboration between many members of the Infection & Immunity CAG under the supervision of Dr Tihana Bicanic. We conducted a retrospective cohort analysis of over 700 COVID-19 patients admitted to St George's Hospital during the 1st wave of the pandemic. We performed a rigorous analysis based on culture results to identify true co- and secondary infections and sought to identify risk factors for developing these. We found that admission to ICU was the most significant risk factor and that the majority of our secondary infections were due to gram-negative organisms. We looked at the impact of immunosuppressive therapy (IST) in this cohort and found no association between the use of IST and secondary infections, but did find that those who received IST had longer durations of antimicrobial therapy.



Workplace Sexism

Dr Amy Craig AFP Year 2 and Dr Hilary Warrens AFP Year 2

This year we have been working on a project to identify and combat workplace sexism in the NHS. The BMA's recent 'Sexism in Medicine' report showed that 91% of women junior doctors experienced sexism at work with women aged 26–34yrs most commonly affected. In light of this, we were initially interested in evaluating whether experiences of sexism differed between young women starting work in different professions.

We sent out an anonymous survey adapted from the BMA report to both doctors and non-doctors who identify as women and were in their first 5 years of work. We collected 100 responses with an even split between doctors and those in a variety of other professions.

Doctors reported a significantly higher number of experiences of sexism compared to those in other professions, across multiple elements of the survey. 58% of doctors experienced sexism at least weekly, compared to 13% of NDs ($p<0.0001$). 75% of doctors felt the main driver of workplace sexism was 'individuals', whilst 59% of NDs felt it was 'structural and institutional' factors ($p=0.0001$). Compared with NDs, doctors more often felt that due to being a woman: they were disproportionately asked to do specific tasks (79% vs 39% $p=0.03$); were perceived to be in a different or more junior role (95% vs 71%, $p<0.0001$); and their ability was doubted or undervalued (81% vs 62%, $p=0.01$).

This helped us to develop recommendations aimed at 3 key groups: junior doctors, senior colleagues and patients. We have presented our findings at the Foundation school faculty meeting to highlight the issue and gather ideas for improvements. We then delivered a teaching session to the FY1 doctors to hear their experiences, promote awareness, and improve knowledge and confidence in raising issues of sexism. We promoted awareness of unconscious bias amongst senior colleagues by presenting at Grand round. We encouraged both groups to take the Harvard Implicit Association test to identify any areas of unconscious bias they might have. Finally, we aim to organise focus groups amongst patients for further suggestions for change.

We are continuing to work on promoting awareness of workplace sexism and trying to implement ideas to combat this. In our sessions we have recommended taking the Harvard Implicit Association Test to help increase your awareness of any areas of unconscious bias which you might have and would encourage readers to consider doing so.

AFP doctors supported by the Isaac Schapera Research Trust

Dr Simran Parmar AFP Year 1

Simran and I were able to present and virtually attend the International Society of Nephrology's World Congress in February 2022. The event was held in Kuala Lumpur but an impressive interactive virtual conference was established to enable people to get involved worldwide.

Dr Hilary Warrens AFP Year 2

My poster, titled "Seroresponse to SARS-CoV-2 Infection and Vaccinations in Haemodialysis Patients" summarised data thus far in research our team is doing into the efficacy of the COVID vaccine in this vulnerable population.

Simran's poster was titled "The impact of heart failure and chronic kidney disease on mortality in patients with both conditions: an audit of a novel joint clinic". This work highlighted the important effects that each condition has on the other and how treating them together, as is done here at St Georges Hospital in a combined heart failure and kidney failure clinic, is the way forward in best managing these patients.

We were also able to attend seminars from leaders at the forefront of advances in renal medicine worldwide. Speakers shared their work and experiences including interesting talks on bioartificial kidneys and worldwide responses to the COVID-19 pandemic. We were enthused by attending and being a part of this conference and are so grateful for the support of the Isaac Shapera Fund that allowed us to attend.

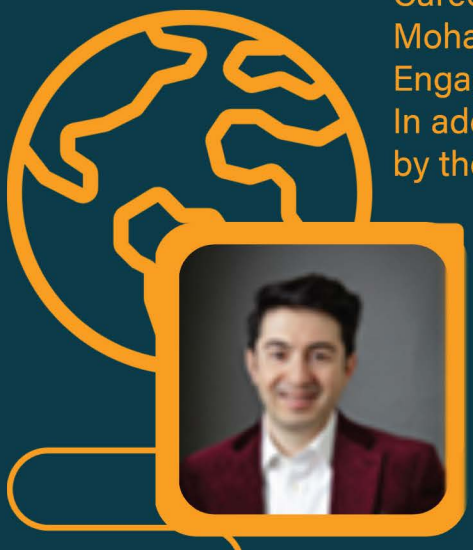
Congratiulations!

Dr ZOE Rutter-Locher Academical clinical fellow ACF Rheumatology 2015 -2018

Dr Zoe Rutter-Locher went back into her clinical training after the Academic Clinical Fellowship at St George's. However, her interest in research continued and she has recently been successful in gaining an NIHR Clinical Research Fellowship for her project based at Guys' hospital which aims to investigate pain mechanisms in inflammatory arthritis

News from Academic General Practice / Primary Care

Mohammad Razai has been awarded the John Maddox Prize 2021 Early Career Researcherby Sense about Science and Nature.
Mohammad also received the award for "Excellence in Public/Civic Engagement in Research 2021" at St George's Research Day 2021
In addition, Mohammad has been awarded the GP Specialty Award 2021 by the Royal College of General Practitioners.



Mohammad has been awarded the GP Specialty Award 2021 by the Royal College of General Practitioners for his work on 'Long Covid' in Primary Care. The award is given for original and/or innovative project work undertaken during the course of GP specialty training.

- Roaa Al-Bedaery (primary care ACF) has just been awarded a distinction, in her MSc in Health Professions education from UCL, which she has undertaken as part of her post.
- Roaa was awarded the Deans prize for best MSc Postgraduate Poster' at UCL and got a distinction

Felicity knights

Academic Clinical Fellow

I've had a busy but enjoyable few months **with the Migrant He**althResearch group prior to going on maternity leave**. This has involv**edfirst authoring a BMJ practice pointer on initial health assessments for newly arrived migrants, refugees and asylum seekers, and supporting my colleagues in a number of publications including a commentary on provision of healthcare for displaced Ukrainian populations and a systematic review defining the determinants of vaccine uptake and undervaccination in migrant populations in Europe in The Lancet Infectious Diseases. We have also recently pre-printed a systematic review on the use of social media platforms by migrant and ethnic minority populations during the COVID-19 pandemic.

It's been a real privilege to be able to share our work with a range of audiences including a migrant health panel for junior health leaders and at the Faculty of Medical Leadership and Management's Health Inequalities forum, and since leaving for maternity leave, the team had a strong representation at ECCMID – The European Congress of Clinical Microbiology and Infectious Diseases.

Overall, I've found it to be a real privilege to be part of such a great team during my academic training and have been able to develop my skills and understanding of a range of methodologies, as well as delivering some practical training and education pieces for other front-line clinicians caring for migrant patients.

Links to papers mentioned:

Initial health assessments for newly arrived migrants, refugees, and asylum seekers
https://www.bmj.com/content/377/bmj-2021-068821

Health-care provision for displaced populations arriving from Ukraine
https://www.thelancet.com/journals/laninf/article/PIIS1473-3099(22)00225-0/fulltext

Defining the determinants of vaccine uptake and undervaccination in migrant populations in Europe to improve routine and COVID-19 vaccine uptake: a systematic review
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9007555/

The use of social media platforms by migrant and ethnic minority populations during the COVID-19 pandemic: a systematic review
https://www.medrxiv.org/content/10.1101/2022.02.07.22270579v1

Dr Mohammad Razai wins John Maddox Early Career Researcher Prize

Dr Mohammad Razai from the Population Health Research Institute at St George's, University of London has been awarded a John Maddox Prize as an early career researcher who stands up for science.

Now in its tenth year, the John Maddox Prize is a joint initiative of the charity Sense About Science and the scientific journal Nature. The internationally-recognised prize attracts global nominations from individuals, across disciplines, who are conducting essential work in standing up for sound science in the public interest and in the face of adversity and opposition.

Dr Razai, an Academic Clinical Fellow in Primary Care and GP, was selected as a winner for bringing an evidence-based understanding of racial health inequalities to bear in public and policy debates. His work has covered topics ranging from tackling vaccine hesitancy among ethnic minority groups to revealing systemic racism as a fundamental cause and driver of adverse health outcomes. His must-read research papers, editorials and guidance have received widespread coverage and recognition, influencing international debates on the issues at hand.

On receiving the award, Dr Razai said: "It is the biggest highlight of my career so far to receive the John Maddox Prize. Sir John Maddox set an example for researchers and clinicians like me, to stand up for what is right and never sidestep controversy even if it receives a hostile reception in high places. My work on racial health inequalities brought me in the crosshairs of those who thought that they could sacrifice scientific evidence in the service of a short-term political project."

Having moved to the UK from Afghanistan as a teenager, he added: “I believe no matter what obstacles and challenges we may face as scientists in the global north, it is not the same as Afghan scientists, especially women and those from racial minorities, who literally pay with their lives in speaking truth and standing up for their rights. I remember them and dedicate this prize to them.”
This year over 100 nominations were received from across 23 countries, with the winners announced last night in a ceremony at the Wellcome Collection. The winners were chosen by an international panel of judges and were presented their awards following comments from Tracey Brown, director of Sense About Science, Nature editor-in-chief Magdalena Skipper and Bronwen Maddox, daughter of the late John Maddox.

- The winner of the main prize this year was Dr Elisabeth Bik, in recognition of her outstanding work exposing widespread threats to research integrity in scientific papers, including image manipulation, plagiarism, data manipulation, and methodological concerns. She follows in the footsteps of the likes of Dr Antony Fauci, who won the award last year.

The prize commemorates Sir John Maddox, who was a passionate and tireless communicator and defender of science. As a writer and editor at Nature for 22 years, he engaged with difficult debates and encouraged others to do the same.
Speaking on Dr Razai’s award, judge on the panel and Health Policy Editor for The Economist, Natasha Loder, said: “Mohammed Razai has been both courageous and determined in his work on ethnic inequalities and inequities in health, and on vaccine hesitancy, during Covid-19. He is to be commended for bringing science, and evidence, to the public discussion.”
You can read more about Dr Mohammad Razai’s work and experiences at St George’s in our Meet the Researcher article.

Events, courses, and training opportunities

Starter grants – the Academy of Medical Sciences

To apply for the Academy's Starter Grants for Clinical Lecturers, Springboard, GCRF, Networking, Newton Fellowship, and Daniel Turnberg Travel Fellowship schemes please use Flexi-Grant, the Academy's online application system. A Flexi-Grant user guide can be downloaded from the link below. In addition, when an application is open, you can download a template application form for the scheme you want to apply from the scheme's webpage:

https://acmedsci.ac.uk/grants-and-schemes/grant-schemes/information-for-applicants/start-your-application
You can find application tips just below the application link. In the Learning Hub you can find more tips for researchers at all stages of their careers.

NIHR NAME CHANGE

To further emphasise their enduring commitment to social care research, the NIHR has officially become 'National Institute for Health and Care Research.' The acronym 'NIHR' will remain unchanged.

SAVE THE DATE RESEARCH DAY 2022

Research Day 2022 will be held on 7 December.

GAT (George's Academic Training)

FRIDAY 17 JUNE 2:00PM - 4:00PM

THE GAT TEAM WILL BE HOSTING A VIRTUAL PRESENTATION

by Richard Milham, Programme Manager, NIHR Academy.

Please visit this link to register

https://www.eventbrite.co.uk/e/333566174407

Or scan the QR code below

St George's University of London

George's Academic Training (GAT)

NIHR | National Institute for Health and Care Research

TOPICS TO BE COVERED

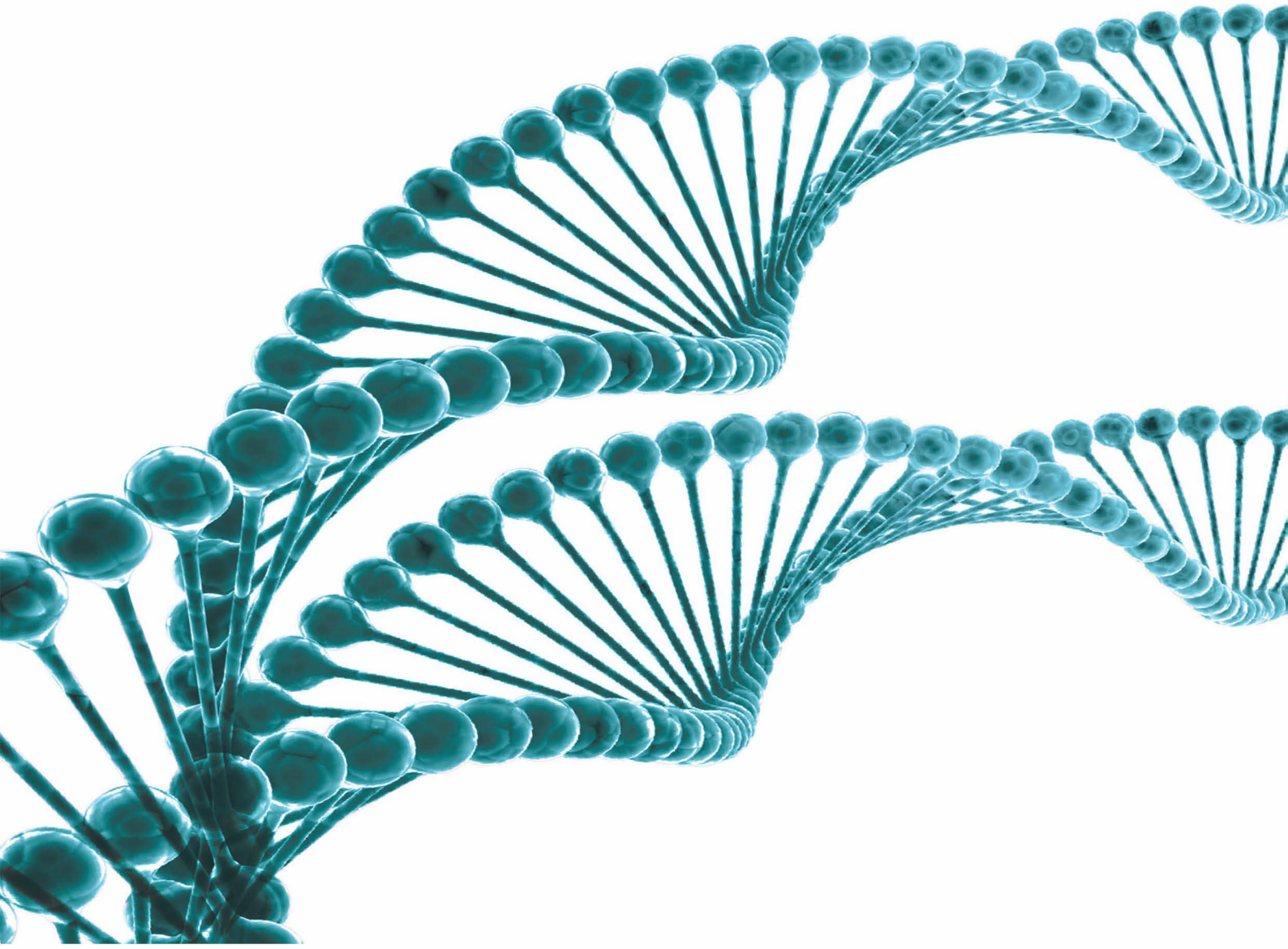
- The funding opportunities for medical ACFs and CLs for NIHR fellowships
- Funding opportunities for Allied Health Professionals for NIHR pre-, doctoral and post-doctoral fellowships
- Interview preparation and success rates, what a good application looks like
- Q&A session

St Georges
University of London

KING'S College LONDON

GENOMIC MEDICINE
MSc, PGDip, PGCert & CPPD

Postgraduate Study



The Genomic Medicine is a St. George's University course jointly taught with King's College London that offers PGCert, PGDip and full Masters awards but also standalone modules (CPPD) for those who want to expand their knowledge in just one or few specific topics. The curriculum has been designed by the Genomic Education Programme of the Heath Education England which provides funding for up to 4 modules per year to NHS healthcare professionals. Please visit the Genomics Medicine website for further information https://www.sgul.ac.uk/study/courses/genomic-medicine

Clara Cieza-Borrella and Kate Everett's email addresses as Course Director and Course Admission Tutor respectively (ccieza-b@sgul.ac.uk and keverett@sgul.ac.uk)

ResearchAware
Statistics and Data Analysis

- Each session is eligible for self-assessed CPD points
- A short series of 1 - 2hr training sessions to refresh topics in inferential statistics and exploring data
- Delivered by experts in research skills & methods across St George's University of London, St George's Healthcare NHS Trust and Faculty of Health, Social Care & Education.
- Open to all, and of particular relevance to clinicians and allied health professionals who are:
  - interested in doing research and potentially developing their own projects
  - active researchers who wish to build, broaden or refresh their knowledge

Time & date	Topic
1pm-2.30pm ***Tuesday*** ***31st May 2022***	**Model based Statistical Inference** ***Reserve your place >>>*** ***Dr Chao Wang,*** *Senior Lecturer in Health and Social Care Statistic, Joint Faculty of Health, Social Care and Education, SGUL* **The aims of the session are for attendees to:** • Understand what a statistical model is, and how a model, in particular the linear regression model can be used for statistical inference and its connections with various statistical tests. ○ Real-world data on COVID19 in the US will be used as an example to illustrate a classic two-sample test problem. ○ It will be discussed how the use of the modelling approach will simplify learning and interpreting statistical problems, and meanwhile provide a strong basis for more complex issues.
1pm-2:30pm ***Tuesday*** ***7th June 2022***	**The Significance of Significance** ***Reserve your place >>>*** ***Dr Philip Sedgwick,*** *Reader in Medical Statistics and Medical Education, Institute for Medical and Biomedical Education &* ***Prof Nidhi Sofat,*** *Professor of Rheumatology & George's Academic Training Lead* **The aims of the session are for attendees to:** • Gain an appreciation of statistical significance (P-value) through the application of statistical hypothesis testing, and discuss its merits when applying the results of research to clinical practice. • Consider the triad of significance, namely "Statistical, Clinical and Patient". ○ Have an opportunity to discuss the concept of significance and its implications for attendees' in their own specialties.
1pm-2.30pm ***Tuesday*** ***14th June 2022***	**Plotting Graphs and Figures in R** ***Reserve your place >>>*** ***Dr Adam Witney****, Reader in Bioinformatics, Institute for Infection and Immunity* **The aims of the session are for attendees to:** • Get a taster of what R is and what it can do, • Know how to load and manipulate data sets, • Produce clear and fully customisable visualisations to explore and report data sets.

For full details contact Mathew Paul: mpaul@sgul.ac.uk

NIHR Fellowship Programme

Four fellowships have been designed to support individuals at various points of their development in becoming leading researchers, from initial pre-doctoral training to senior post-doctoral research.

1. Pre-Doctoral Fellowship
2. Development and Skills Enhancement Award
3. Doctoral Fellowship
4. Advanced Fellowship

Have a look at the website for more information: NIHR Fellowship Programme | NIHR

Twitter

The GAT twitter account is live and being moderated by Bejinariu Marius. Any news you would like share or engage with online please email mbejinar@sgul.ac.uk

This account is open to showcase the opportunities available for those at St George's and to share the amazing work being done by our clinical academic trainees.

Have a look and follow, share and retweet!