



Research Day

Tuesday 3 December 2019

Showcasing Research Excellence at St George's



Welcome

St George's, University of London Research Day 2019

Welcome to St. George's Research Day which is a highlight of our University calendar. The day has been refreshed so that we can all appreciate research excellence, across the entire University. Presentations in the morning will feature scientists from PhDs to Professors reflecting the strength of research across the Research Institutes. Do ask them questions! Of course, we have too many areas of excellence in research for them all to be squeezed into the program this time around. A highlight of the day will be the poster session and I am delighted that the number submitted has increased by over 25%. Please go round and talk to the presenters, exchange ideas and maybe kick-start a new project. New for this year are the University awards which will be given out along with the traditional poster prizes which include the Chrissy Fenske Award of £1,000 to attend a research conference. The panel had a hard job choosing the award winners of the new annual St. George's Awards since competition was tough. However, the winners are very deserving and maybe when you hear them, you will consider whether you or someone you work with should enter the competition next year. The day's finale is The Thomas Young lecture which has been a highlight for very many years featuring some of the best known names in UK and International Medicine and I am delighted that the 2019 lecture is being delivered by Sir Munir Pirmohamed. Enjoy the day!



Professor Jonathan Friedland

**Deputy Principal (Research and Enterprise) and
Professor of Infectious Diseases**

St. George's, University of London Research Day

Tuesday 3rd December 2019

8.30 – 9.15 Registration

9.15 – 9.20 Welcome

Research at St. George's, University of London (1): Michael Heron Lecture Theatre

Chair: Professor Dot Bennett

9.20 – 9.40 Professor Tom Carter "A new look at an old body."

9.40 – 10.00 Dr Laura Southgate "The complex genetic architecture of pulmonary hypertension: an emerging paradigm."

10.00 – 10.20 Mohammed Hudda "Assessment of childhood obesity: to BMI or not to BMI?"

10.20 – 10.40 Professor Tom Harrison "Treatment and prevention of cryptococcal meningitis in Africa: progress and prospects"

10.40 – 11.15 Coffee Break

Research at St. George's, University of London (2): Michael Heron Lecture Theatre

Chair: Professor Julian Ma

11.15 – 11.35 Professor Julia Critchley "Infections in patients with diabetes – have the risks been underestimated?"

11.35 – 11.55 Melanie Grandits "Making bio-betters better available."

11.55 – 12.15 Dr Chris Miles "Arrhythmogenic cardiomyopathy: an elusive cause of sudden cardiac death in the young."

12.15 – 12.35 Dr David Clark "Using vaccination to prevent Ebola virus disease."

12.35 – 12.55 Dr Michael Perkin "Early allergenic food introduction - beyond the peanut."

13.00 – 14.00 Lunch: Alistair Hunter room

13.30 – 15.45 **Poster Session: Boardrooms**

** Please note: All abstracts are available online as a PDF at to save paper**

16.00 – 16.50 *Prize talks: Michael Heron Lecture Theatre*

Chair: Professor Peter Whincup

Outstanding Research Publication (2018-19):

Dr Yingfen Hsia

Postdoctoral Research Scientist Award:

Dr Sebastian Fuller

Excellence in Public/Civic Engagement in Research:

Professor Nan Greenwood

Prize for Outstanding Research Achievement
by a University Lecturer:

Dr Sally Hargreaves

Prize for Outstanding Research Achievement
by a University Senior Lecturer:

Dr Iain Carey

16.50 – 17.10 Prize giving

17.15 – 18.15 The Thomas Young Lecture: Michael Heron Lecture Theatre

Sir Munir Pirmohammed

“Precision medicine: do we need it?”

Thomas Young Lecture 2019

Professor Sir Munir Pirmohamed



Professor Sir Munir Pirmohamed- Munir is currently David Weatherall Chair in Medicine at the University of Liverpool, and a Consultant Physician at the Royal Liverpool University Hospital. He also holds the only NHS Chair of Pharmacogenetics in the UK, and is Director of the M.R.C. Centre for Drug Safety Sciences, and Director of the Wolfson Centre for Personalised Medicine. He was awarded a Knights Bachelor in the Queen's Birthday Honours list in 2015. He is currently President Elect of British Pharmacological Society and an inaugural NIHR Senior Investigator, and Fellow of the Academy of Medical Sciences in the UK. He is a Commissioner on Human Medicines. He is also a member of the MRC Governing Council and has also recently been appointed as a non-executive director of NHS England. His research focuses on personalised medicine in order to optimise drug efficacy and minimise toxicity, move discoveries from the lab to the clinic, and from clinic to application.

Prize winner Biographies

Dr Yingfen Hsia- Outstanding Research Publication (2018-19)



Yingfen Hsia is a pharmacist by training and retrain as pharmaco-epidemiologist and received her PhD degree from University College London School of Pharmacy. She joins St George's University since 2014. Prior to her current position in SGUL, she worked at the Centre for Paediatric Pharmacy Research, University College London School of Pharmacy for several years. Her research interest is centred on medication use in children and adolescents, with a particular focus on using the UK and European electronic healthcare databases for epidemiological research. She uses a wide range of epidemiological methods and statistical techniques in her research projects. Her current research focuses on antibiotic use and vaccine-preventable childhood diseases. She is working with Dr Julia Bielicki and Professor Mike Sharland and to develop global antimicrobial resistance surveillance system and methodology to evaluate appropriate antibiotic use and resistance patterns in neonates and children.

Dr Sebastian Fuller- Postdoctoral Research Scientist Award



Sebastian Fuller's work helps to bridge the gap from discovery to implementation through exploration of the social impacts of new technologies in healthcare. Sebastian's approach uses social science and public and patient engagement methods to explore barriers and facilitators to implementation of new technologies from multiple stakeholder perspectives. His current work is focused on development and clinical implementation of new diagnostics in sexual healthcare in England, and the social acceptability of plant molecular farming products in Europe.

Professor Nan Greenwood- Excellence in Public/Civic Engagement in Research



Professor Nan Greenwood is a mixed methods researcher in the joint Faculty of Health, Social Care and Education. She is a social scientist with two decades of research in health and social care services, particularly investigations relating to stroke, dementia and older people. Over the last decade her research has centred on informal, unpaid, often family carers. More recently the focus has shifted to older carers' experiences and support needs. She works closely with voluntary sector organisations supporting carers and has published widely including many qualitative investigations and systematic reviews.

Dr Sally Hargreaves- Prize for Outstanding Research Achievement by a University Lecturer



Dr Hargreaves is a Lecturer in Global Health at St George's and an NIHR Advanced Fellow. She has an interest in migrant health and health systems research, with a particular focus on latent tuberculosis, vaccination, and inequalities. She leads a group of social scientists, clinical fellows, and PhD and MSc students focusing on implementing innovative screening and catch-up vaccination tools targeting migrants at primary and secondary health-care services, and better understanding links between migrant populations and outbreaks and incidence of vaccine-preventable diseases. Last year she was Wellcome-funded to explore the health needs of international labour migrants and is currently working with the

International Organisation for Migration to analyse data from the pre-departure vaccination programme in refugees overseas prior to migration to Europe. Other recent collaborations include Public Health England (TB and vaccination), the UCL-Lancet Commission on Migrant Health (Commissioner), WHO (Latent TB Guidelines Committee member), and the ECDC (Advisor, migrant screening guidelines).

Dr Iain Carey- Prize for Outstanding Research Achievement by a University Senior Lecturer



Dr Iain Carey is a Senior Lecturer in Epidemiology in the Population Health Research Institute. He originally joined St George's in 1994, completing a PhD part-time in 2000. After a one-year hiatus he returned in 2001, focussing his research on the utilisation of large electronic primary care databases, initially covering areas such as cardiovascular disease, diabetes, atrial fibrillation and glaucoma. More recent projects have addressed the quality of care in care homes and inappropriate prescribing in the elderly, the impact of partner bereavement, health effects of long-term exposure to air pollution, and evaluating health checks in adults with learning disability.

Speaker Biographies

Professor Tom Carter



Tom Carter's research is focused on identifying the molecular mechanisms that control the regulated secretion of bioactive mediators from vascular endothelial cells. Tom Carter graduated from King's College London (BSc;1986, PhD; 1989) and subsequently held a British Heart Foundation Intermediate Fellowship followed by a British Heart Foundation University Lectureship. In 2003 Tom Carter joined the MRC National Institute for Medical Research as a Career Scientist, and in 2014 moved to SGUL. Tom Carter's research uses state of the art imaging techniques to study the structure, composition, intracellular trafficking and exocytosis of secretory granules in human endothelial cells.

Dr Laura Southgate



Dr Southgate commenced her post as Lecturer in Genetics at St George's in August 2017. Her research is focused around rare disease genetics, specifically understanding the molecular mechanisms underlying inherited vascular disorders with a complex aetiology, including pulmonary arterial hypertension (PAH), cluster headache and Adams-Oliver syndrome. Dr Southgate gained her PhD in Medical & Molecular Genetics from King's College London and has held post-doctoral positions at KCL and QMUL. She is an active member of the NIHR BioResource for Rare Diseases (PAH subdomain), the Genomics England Clinical Interpretation Partnership (Cardiovascular GeCIP) and the ClinGen Clinical Domain Working Group (Cardiovascular CDWG).

Mohammed Hudda



Mohammed Hudda is a PhD student in applied medical statistics within the Population Health Research Institute at St George's, University of London with research interests in childhood obesity, health inequalities and statistical methods for risk prediction. His current research is focused on improving the assessment of obesity in the childhood population, with a particular focus on those from ethnic minority groups. Mohammed has recently developed a novel method for estimating childhood body fat which uses routinely available measures of height, weight, sex, age and ethnicity (if available).

Professor Tom Harrison



Tom Harrison is Professor of Infectious Diseases and Medicine, Deputy Director of the Institute for Infection and Immunity, and Lead for the Centre of Global Health at St Georges University of London, and Honorary Consultant at St Georges Hospital, London. He trained in Infectious Diseases in London and Boston, USA. He leads a clinical and laboratory research programme on the prevention and treatment of cryptococcal meningitis with colleagues from St George's, and in collaboration with the Liverpool and London Schools of Tropical Medicine, and colleagues across sites in Sub-Saharan Africa. He is also involved in phase II and III clinical trials on the chemotherapy of tuberculosis.

Professor Julia Critchley



I have been a Professor in PHRI since 2010, with training in Epidemiology (DPhil; Oxford University) and Public Health (MSc from St George's). My research focusses on associations between common chronic and infectious diseases such as diabetes (DM) and tuberculosis (TB). In the UK, we have investigated the impact of diabetes on a range of infection risks and outcomes using primary care data, finding that 1 in 6 infection related deaths or hospitalisations can be attributed to poor DM control. Internationally, I have worked with several large consortia on related topics and co-authored joint IUALTD/WDF guidelines for managing TB-DM <https://www.theunion.org/what-we-do/publications/technical/management-of-diabetes-mellitus-tuberculosis-a-guide-to-the-essential-practice>.

Melanie Grandits



Melanie Grandits is a 4th year PhD Student in Julian Ma's lab. Her research focuses on improving efficacy of anti-HIV antibodies. She completed an undergraduate degree in Chemistry and Master's degree in Biotechnology and Bioanalytics, both at Vienna University of Technology.

Dr Chris Miles



Chris is a British Heart Foundation research fellow and specialist registrar in cardiology. He completed his undergraduate training at Imperial College London and the University of Bristol Medical School. His interests include clinical electrophysiology and conditions predisposing to sudden cardiac death in the young.

Chris has won several academic prizes, including the Young Investigator Award in Sports Cardiology, awarded by the European Association for Cardiovascular Prevention and Rehabilitation. He has published in leading journals, including *Circulation* and the *BMJ*. Chris is a module lead for the MSc in Sports Cardiology and an expert member of the Westminster Research Ethics Committee.

Dr David Clark



David is a post-doctoral researcher in the Institute for Infection and Immunity. He received his MSc in "the molecular biology and pathology of viruses" at Imperial College London and followed this with a PhD at the London School of Hygiene and Tropical Medicine, studying viral chemokines, finishing in 2012. He spent his first post doc, 2013-2014, in the US at the University of California, San Diego researching chemotaxis in collaboration with industry. He joined SGUL in 2015 and has been working in the field of diagnostics for a number of different pathogens including: viruses (Ebola virus, Dengue, Zika, Chikungunya, HIV), obligate parasites (leishmania, trichomonas, malaria) and bacteria (Neisseria and Chlamydia).

Dr Michael Perkin



Dr Perkin is Reader at St George's, University of London. For eight years he ran the FSA/MRC funded "EAT" (Enquiring About Tolerance) Study the results of which were published in March 2016 in the *New England Journal of Medicine*. He trained at St George's Hospital and then undertook clinical allergy training at St Mary's and Southampton Hospitals. He held a Wellcome Fellowship in Clinical Epidemiology under Professor David Strachan. His PhD was on the relationships between atopy and the farming environment in children. His research interests are the epidemiology of allergic disease, the prevention of food allergy and the environmental contribution to the allergy epidemic.

Exhibitors Research Day 2019

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