THE GENOMIC MEDICINE FOUNDATION (UK)
FELLOWSHIP, SCHOLARSHIP, EDUCATION AND PROMOTION OF GENOMIC APPLICATIONS IN MEDICINE, HEALTHCARE AND SOCIO-ECONOMIC PROGRESS

www.genomicmedicine.org

The Fourth Symposium on Genomic & Precision Medicine

11th June 2024

Milton Lecture Theatre, Garrod Building
Whitechapel Campus, Queen Mary University of London

"From Genomics and OMICS to Clinical Medicine"

Approved by the Federation of the Royal Colleges of Physicians of the United Kingdom for 5 category 1 (external) CPD credit(s) (Code 154973).

Welcome to the 4th symposium on genomic precision medicine and healthcare. The symposium aims to discuss the current and future input of emerging novel genomics and OMICS for delivering the precision clinical medicine. Renowned global Faculty will deliver the excellent programme including the Professor Sir David Weatherall Oration (2026). The conference is hosted by the William Harvey Research Institute, Queen Mary University of London, England. UK.

Programme

0930 Welcome/ Registration
Tea/ Coffee

1000 **Introduction**
Professor Dhavendra Kumar, WHRI, QMUL, UK
Medical Director, Genomic Medicine Foundation UK
Chair- Programme & Organising Committee
(d.kumar@qmul.ac.uk ; md@genomicmedicine.org)

1015 ***Session I: Genomic and OMICs in clinical practice***
Chair: Professor Hywel Williams, Cardiff University, UK

- **'Genomics and OMICS service in the UK NHS'**
  Prof. Emma Baple, Exeter Genomic Laboratory, UK
- **'Development of genome diagnostics in India'**
  Dr. Parag Tamhanker, Consultant Medical Genetics, Apollo Genomics Institute, Navi Mumbai, India.
- **'Genomic newborn screening- the generation study'**
  Dr. David Bick, Genomics England, London, UK

1130 **Tea/ Coffee**

1150 ***Session II: Genomic and Omic therapeutics***
Chair- Prof. Panos Deloukas, Director, WHRI, QMUL, UK

- **'Genomic/Omic approaches for personalised prescribing**
  Dr. Richard Turner, Director Pharmacogenomics, GSK
- **'Gene editing led therapeutics- the model of sickle cell disease'**
  Dr. Fred Piel, Imperial College, London, UK
- **'Status and outcomes of pharmacogenomics in the NHS'**
  Professor Sir Munir Pirmohamed, Univ. of Liverpool, England, UK
- **'Genomics & Omics in critical care medicine'**
  Professor Catherine McKenzie, University of Southampton, UK

1300 **LUNCH**

1345 ***Session III: Global dimensions of genomic & omics medicine***
Chair: TBC

- **'Wellcome initiatives for genomic/omic education and training'**
  Dr. Michelle Bishop, Associate Director, Learning and Training, Wellcome Connecting Science, Genome Campus, Hinxton
- **'Genetic Nurses/Counsellor's role in the NHS genomic/OMIC medicine'**
  Ms. Pooja Dasani, Lead Genetic Counsellor, North Thames Genetic Service, GOSH, London, UK
- **'Research and development priorities for NHS genomic/omic medicine'**
  Professor Sir Mark Caulfield, Vice Principal (Research), QMUL

1500 **Tea/Coffee Break**

1520 **Session III: 'The Professor Sir David Weatherall Oration- 2026"**
Chair- Professor Dhavendra Kumar, Medical Director, GMF-UK

'Omics and the future of precision medicine'
Professor Matt Brown, King's College London, UK; Formerly Chief Scientist- Genomics England, UK

1630 ***Discussion/ Reflections/ Vote of Thanks- Professor Panos Deloukas***

1645 **Close**

To Register: https://www.genomicmedicine.org/product/the-4th-symposium-on-genomic-precision-medicine-2026/

For all other enquiries: genomicmedicine@yahoo.co.uk / md@genomicmedicine.org / d.kumar@qmul.ac.uk

Faculty profiles-

1. Professor Dhavendra Kumar

Professor Dhavendra Kumar, MBBS, MD, DCH (RCPSI), MMedSci, PGCertMedEd, FRCPI, FRSP, FRCPCH, FACMG, DSc (Hon)
The William Harvey Research Institute, Barts and The London School of Medicine & Dentistry, Queen Mary University of London, UK

Academic Affiliations:

- Centre, St Bartholomew's Hospital, Barts Health NHS Trust, London, UK
- Consultant in Clinical Genetics / Cardiovascular Genetics, Inherited Cardiac Unit, Barts Heart Centre, St Bartholomew's Hospital, Barts Health NHS Trust, London, UK
- Consultant in Clinical Genetics & Genomic Medicine, Cardiff & Vale University Health Board, Cardiff, Wales, UK
- Senior Consultant Advisor, Apollo Genomics Institute, Apollo Group of Hospitals, India
- Visiting Professor, Medicine, Swansea University, Wales, UK
- Visiting Professor, Centre for Genomic Healthcare, University of South Wales, Pontypridd, Wales, UK
- Senior Faculty Advisor to the 'Centre of Precision Medicine & Health', King George Medical University, Lucknow, India
- Hon. Professor, Department of Medical Genetics and Genetic Counselling, S.S. Medical College, Rewa, India
- Visiting Professor, Centre for Advanced Research & Education, Chettinad Medical College & Health University, Chennai, Tamil Nadu, India
- Visiting Professor, Faculty of Medicine, University of Colombo, Sri Lanka
- Visiting Professor, Faculty of Medicine, Texas Tech University, Texas, USA
- External Advisor for Genome Medicine, South Africa Medical Research Council (SAMRC), South Africa
- Advisory Board, Mahatma Gandhi University Medical Sciences Technology, Jaipur, India

Citation:

A highly acclaimed, globally acknowledged genetic and genomic clinician with special interests in clinical genetics, cardiovascular genomics and genomics/OM medicine. He is credited with landmark contributions and achievements in genetic/hereditary diseases of children, familial conditions of heart and blood vessels, applications of next-generation sequencing and genomic medicine across disciplines, with the primary focus on patient care, KMU Lucknow, Hind Rattan International NRI Award, the GAPIO–Siemens Medical Innovation Award, the Glory of Georgia & Lifetime Achievement Award of the King George's Medical University Alumni UK, and the Life Time Achievement Award conferred by GAPIO (2023). He is widely applauded for his sincere and persistent efforts for medical genetics as the integral part of medical teaching and practice across India and in low and middle income countries (LMICs).

2. Prof. Matt Brown, Chief Scientist, Genomics England & King's College, London

Professor Matthew Brown, an internationally renowned clinician-scientist, joined Genomics England in 2021.

Prior to joining Genomics England he was Director of the National Institute for Health Research (NIHR) Guy's and St Thomas' Biomedical Research Centre and Professor of Medicine within the Faculty of Life Sciences and Medicine, King's College London.

Professor Brown trained as a clinician-scientist and a rheumatologist in Australia and the UK. Previous positions include Professor of Musculoskeletal Sciences at the University of Oxford; Director of the Australian Translational Genomics Centre, Distinguished Professor, and Director of Genomics at the Queensland University of Technology; and Director of The University of Queensland Diamantina Institute and Professor of Immunogenetics at The University of Queensland.

He has made contributions to the development of gene-mapping approaches in human diseases and genome-wide association study methodology, leading to the discovery of thousands of genetic variants, with a particular interest in ankylosing spondylitis, rheumatoid arthritis, and osteoporosis.

In the genetics of rare human diseases, he has identified genes responsible for monogenic forms of arthritis, ectopic bone development, and skeletal dysplasias. He has also led efforts in Australia to translate research sequencing capability into precision medicine programs for cancer patients.

Professor Brown was elected a Fellow of the Australian Academy of Sciences in recognition for his achievements in genetics research. He still practises medicine, in the specialty of rheumatology, with a particular focus on axial spondyloarthropathies.

3. Professor Sir Munir Pirmohamed, University of Liverpool, UK

Professor Sir Munir Pirmohamed (MB ChB, PhD, FRCPE, FRCP, FFPM. FRSB, FBPhS, FMedSci) is David Weatherall Chair in Medicine at the University of Liverpool, NHS Chair of Pharmacogenetics, and a Consultant Physician at the Royal Liverpool University Hospital. He is Director of the Centre for Drug Safety Sciences, and Director of the Wolfson Centre for Personalised Medicine. He is also Director of HDR North. He is an inaugural NIHR Senior Investigator, Fellow of the Academy of Medical Sciences in the UK, Commissioner on Human Medicines. He was President of British Pharmacological Society from January 2020-December 2021, and is currently President of the Association of Physicians. He was awarded a Knights Bachelor in the Queen's Birthday Honours in 2015.

His research focuses on personalised medicine, clinical pharmacology and drug safety in a variety of disease areas, including cardiovascular medicine.

4. Professor Sir Mark Caulfield

Professor Sir Mark Caulfield is Professor of Clinical Pharmacology at Queen Mary University of London and the Vice Principal for Health for Queen Mary's Faculty of Medicine and Dentistry.

Professor Caulfield graduated in Medicine in 1984 from the London Hospital Medical College and trained in Clinical Pharmacology at St Bartholomew's Hospital, he developed a research programme in molecular genetics of hypertension and translational clinical research.

At Queen Mary University of London Professor Caulfield has made contributions to the discovery of genes related to blood pressure, cardiovascular health, cancer and rare diseases. His research has changed national and international guidance for high blood pressure.

He has won the Lily Prize of the British Pharmacology Society, the Bjorn Folkow Award of the European Society of Hypertension 2016 and the Franz Volhard Award of the International Society of Hypertension in 2018.

Professor Caulfield was appointed Chief Scientist for Genomics England in 2013, charged with delivery of the 100,000 Genomes Project on whole genome sequencing in rare disease, cancer and infection. He was instrumental in delivering the 100,000 Genomes Project which has delivered life-changing results for many patients. He worked with NHS England to co-create the National Genomic Test Directory, which offers equitable access for 56 million people to appropriate genomic tests. Professor Caulfield was awarded a knighthood in 2019 for his leadership of the 100,000 Genomes Project.

He is a member of the Barts Health NHS Trust Board, the Barking, Havering and Redbridge University Hospitals NHS Trust, the MedCity Board and is the President Elect of the British Pharmacological Society

5. Professor Panos Deloukas, Director, WHRI, Queen Mary University of London, UK

Panos Deloukas obtained his BSc in Chemistry from the Aristotelian University of Thessaloniki, Greece and MSc in Microbiology from University Paris 7, France. He received his PhD from the Biozentrum University of Basel, Switzerland in 1991. He joined the Sanger Centre in 1994 where he set up a high-throughput pipeline for radiation hybrid mapping, leading an effort to map 30,000 gene markers, GeneMap98. Panos was an active member of the Human Genome Project coordinating the sequencing and analysis of chromosomes 10 and 20. After the completion of the HGP he joined the International HapMap project constructing SNP maps of the human genome. Since 2005 he is studying the molecular basis of common disease and variable response to drugs in humans through large-scale genetic studies. He joined the William Harvey Research Institute at Queen Mary University London in September 2013 working on the genomics of coronary artery disease and lipid levels. Panos is a member of many consortia including CARDIoGRAMplusC4D, Global Lipids Genetics Consortium, GIANT, the UK Biobank Cardiometabolic Consortium, and the Cardiovascular Genomics England Clinical Interpretation Partnership. He has authored over 400 publications (H-index 121) and is listed by Thomson Reuters among the 1% highly cited researchers in Molecular Biology & Genetics since 2012**.**

7. Dr. Michelle Bishop, Wellcome Connecting Science, Genome Campus, Hinxton, England, UK

Dr Michelle Bishop is Associate Director of Learning and Training at Wellcome Connecting Science, part of the Wellcome Sanger Institute. With over 20 years' experience in genomics education, she leads a multidisciplinary team of scientists, educators, and event specialists, delivering up to 50 events including conferences, education programmes, and training initiatives each year to a global audience of researchers, clinicians, and public health professionals. Her achievements include authoring more than 100 digital genomics education resources; developing training curricula for genomic specialists; establishing competency frameworks across professional groups; publishing over 25 papers and two book chapters on genomics education; and contributing educational and clinical expertise to national and international projects.

8. Prof. Cathrine McKenzie, PhD, FRPharmaS, Professor of Intensive Care Pharmacy, School of Clinical and Experimental Sciences, Faculty of Medicine, University of Southampton, Southampton, UK

Prof. Cathrine McKenzie, an honorary consultant pharmacist in critical care at the University of Southampton, has been appointed to the "first full professorial role for a pharmacist in intensive care in the UK".

She worked in intensive care for over 30 years, and is a renowned for her clinical leadership role on delivering new advances in pharmacy for intensive care patients. She is passionate in engaging pharmacy professionals in research and is currently working with the National Institute of Health Research (NIHR).

9. Dr. Richard M. Turner, GSK

Richard Turner is a senior director leading the Translational & Clinical Genetics team at GSK. His research focuses on harnessing genomic and phenotypic data across population-based biobanks, disease cohorts and clinical trials to inform target discovery and address priority translational questions including biomarker discovery, subgroup identification and combination opportunities to support and accelerate active drug programmes. Prior to joining GSK, he was an Academic Clinical Lecturer at the University of Liverpool and completed clinical training in Clinical Pharmacology and Therapeutics with General Internal Medicine. He studied medicine at the University of Cambridge.

Key Details About Dr. Richard Turner (GSK):

- **Role:** Senior Director, Translational Genetics & Phenomics. He has also been described as the Director of Pharmacogenomics and Clinical Studies.
- **Expertise:** Clinical Pharmacology and Therapeutics, Pharmacogenomics, and Precision Medicine.
- **Background:** He trained in medicine at the University of Cambridge.
- **Affiliations:** He maintains links with the University of Liverpool and NHS England.

10. **Dr Fred B Piel, PhD.** Senior Lecturer in Spatial Epidemiology, Joint Training Programme Director, Dept. of Epidemiology and Biostatistics, School of Public Health, Imperial College of Medicine, London, UK.

Dr. Fred Piel's research uses rigorous spatial quantitative methods to study a range of epidemiological questions related to non-communicable disease, global health and low- and middle-income countries. He is particularly interested in applying small-area methods to study environment-health associations in cystic fibrosis and other diseases within the UK Small Area Health Statistics

Unit (SAHSU). He is a member of the MRC Centre for Environment & Health (CEH). I am involved in several key projects of the NIHR Health Protection Research Units (HPRU) in Chemical & Radiation Threats and Hazards (CRTH) and in Environmental Exposures & Health (EEH), in collaboration with Public Health England (PHE).

Dr. Piel is a leading expert on the epidemiology and health burden of sickle-cell disease and other haemoglobinopathies. I assemble contemporary evidence to inform public health policies in order to better prevent and manage these disorders, and ultimately improving the quality of life of patients. He is a Fellow of the Royal Geographical Society (FGRS) and of the Royal Society of Tropical Medicine & Hygiene (RSTMH).

11. Ms. Pooja Dasani, Prinicpal Genetic Counsellor, North Thames Genomic Services, Great Ormond Street Hospital, London, UK.

Pooja is a Principal Genetic Counsellor at Great Ormond Street Hospital. With extensive experience across multiple NHS trusts in England, she brings clinical expertise and strategic leadership to the field of clinical genomic healthcare.
Pooja specialises in prenatal genomics, with a strong focus on delivering equitable, culturally sensitive care. She is a board member of the Genetic Counselling Registration Advisory Board (GCRAB), Co-Vice Chair of the British Society for Genetic Medicine (BSGM) Equality, Diversity and Inclusion sub-committee, and a member of the BSGM Prenatal Genomics Steering Group.
A passionate educator, Pooja leads the "Counselling Skills in Genomics" module for the MSc in Genomic Medicine at Queen Mary University of London. She has played a key role in developing and delivering genomics education for healthcare professionals at local, national, and international levels.
Pooja is a committed mentor and advocate for the evolving role of genetic counsellors within multidisciplinary teams. Her work champions inclusive leadership, service innovation, and workforce development in the rapidly advancing landscape of genomic medicine.

12. Prof. Emma Baple, Professor of Genomic Medicine, University of Exeter, UK

Emma is Professor of Genomic Medicine. Emma leads the Rare Disease Research Group at the University of Exeter Medical School. Her principal area of interest is in the use of new genetic technologies to identify the cause of rare genetic disorders and the translation of that knowledge into improved clinical diagnostic testing and treatment strategies. Emma's principal area of research involves the investigation of the molecular causes of inherited disorders within a community setting, stemming from the identification of the causal disease gene through to more detailed studies of the biological pathway and disease mechanism responsible.

Emma is also the Medical Director of the NHS South West Genomic Laboratory Hub (a partnership between the Exeter and Bristol Genomic Laboratories) and Clinical Director of the South West Genomic Medicine Service Alliance. Between 2015-2020 Emma was Clinical Lead for Rare Disease Validation and Feedback at Genomics England.

Over the last 6 years Emma's research has focussed on the investigation of the genetic and molecular basis of inherited conditions. She is recognised internationally for her research to define the molecular causes of neurodevelopmental and degenerative disorders. Important examples include: the delineation of a new autosomal recessive tubulinopathy associated with PRUNE mutation and the identification of a hypomorphic mutation of PCNA that underlies a novel autosomal recessive DNA repair disorder. These genetic discoveries have provided important insights into new disease mechanisms.

13. Dr. Parag Tamhanker, Consultant Clinical Genetics, Apollo Genomics Institute, Navi Mumbai, Maharashtra, India

Dr Parag Tamhankar
Consultant Clinical Geneticist, **MBBS, MD, DM, FRCP London**
Apollo Genomics Institute, Apollo Hospitals CBD, Belapur, Mumbai, India

Dr Parag Tamhankar is a top Clinical Geneticist and Genetic Counsellor at Apollo Hospitals CBD Belapur in Mumbai. He specializes in diagnosing and treating a wide range of Clinical Genetics and

Counseling conditions, including hailey hailey disease, Hereditary Spastic Paraplegia, Glycogen Storage Disease, Harlequin Ichthyosis, Holt Oram Syndrome, and many more. He is actively involved with academic activities s judged by his publications (h-index 17) and editorial roles.

14. Dr. David Bick, Principal Clinician, Newborn Genomics Programme, Genomics England, UK

Dr. David Bick, MD, PhD.

Principal Clinician, Newborn Genomes Programme ,**Genomics England**
David Bick is the Principal Clinician for the Newborn Genomes Programme at Genomics England. Prior to his work in England, he was the chief medical officer and a faculty investigator at the HudsonAlpha Institute for Biotechnology. Dr. Bick also served as the Medical Director of the Smith Family Clinic for Genomic Medicine at HudsonAlpha and the Laboratory Director of the HudsonAlpha Clinical Services Laboratory.

He came to HudsonAlpha from the Medical College of Wisconsin where he was Professor in the Department of Pediatrics and the Department of Obstetrics & Gynecology and Director of the Clinical Sequencing Laboratory, Director of the Advanced Genomics Laboratory, Medical Director of the Genetics Clinic at Children's Hospital of Wisconsin, and Chief of the Division of Genetics in the Department of Pediatrics at Medical College of Wisconsin. Dr. Bick is board certified in Pediatrics, Clinical Genetics, and Clinical Molecular Genetics.

Dr. Bick has published numerous peer-reviewed articles, chapters, and reviews. His laboratories at the Medical College of Wisconsin and Children's Hospital of Wisconsin were the first in the world to offer whole genome sequencing as a clinical test. He also developed the first Genomic Medicine Clinic in the United States.

15. Prof. Hywel Williams, Lead Bioinformatics, Division of Cancer and Genetics, Cardiff University, Wales, UK

Dr Hywel Williams, PhD is a Senior Lecturer in Bioinformatics at Cardiff University. His research is focused on using multi-omic techniques and big data informatics to better understand the biological basis of rare disease, with an emphasis on neuro-related phenotypes, and to help increase diagnostic rates and improve patient wellbeing. He will be co-leading our Genotype-Phenotype

Association community which focuses on studying large-scale genotype-phenotype studies to uncover rare variants linked to traits and diseases. He is associated with Genomics England as the co-lead for Genotype-Phenotype Association.