

# PHARMACOGENOMICS

## VIRTUAL SUMMIT SERIES

### Summit 1: **Moderators**



**Mira Irons, MD**

Chief health and science officer, American Medical Association

Dr. Mira Bjelotomich Irons is the Chief Health and Science Officer; Group Vice President, Health, Science and Ethics at the American Medical Association (AMA), and in this role provides intellectual leadership for AMA initiatives at the interfaces of practice, science, evidence, policy, ethics, and technology. Dr. Irons is a board-certified physician in both Medical Genetics and Pediatrics and has an impressive breadth and depth of experience in academic medicine, clinical practice, medical professional leadership and scientific research. Prior to joining the AMA, she was the Senior Vice President for Academic Affairs at the American Board of Medical Specialties where she led core ABMS programs and staff that served to advance improved standards and methods for certification, continuing certification and lifelong assessment, as well as leading the ABMS International programs. Prior to coming to ABMS, Dr. Irons spent 30 years in academic medicine in Boston, initially at Tufts Medical Center and more recently at Boston Children’s Hospital where she oversaw clinical operations of the Division of Genetics and Metabolism, served as the residency director for Medical Genetics and fellowship director for the Harvard Laboratory Genetics programs, led a clinical research program, and served as an Associate Professor of Pediatrics at Harvard Medical School, in addition to running a busy clinical practice. She has held numerous local and national roles in both undergraduate, graduate, and continuing medical education, including; service as the Chair of the ACGME Residency Review Committee for Medical Genetics; serving on the Boards of Directors of the Accreditation Council for Continuing Medical Education and the American College of Medical Genetics and Genomics; and serving as the President of the Association of Professors of Human and Medical Genetics. She currently is an Adjunct Associate Professor of Pediatrics at the Northwestern University Feinberg School of Medicine.



### **Julie A. Johnson, PharmD**

Dean of the University of Florida College of Pharmacy and Distinguished Professor of Pharmacy and Medicine

Julie A. Johnson, PharmD, is Dean of the University of Florida College of Pharmacy and Distinguished Professor of Pharmacy and Medicine. She is an international expert in cardiovascular pharmacogenomics and genomic medicine implementation, for which she has received nearly \$50M in research funding and been named a Clarivate Analytics Highly Cited Scientist in 2015, 2016, 2017 and 2018, indicating she was in the top 1% of the most highly cited scientists in her field globally in the decade preceding each year on the list. Dr. Johnson has served in numerous capacities with the NIH, the Food and Drug Administration, and leadership roles in multiple professional societies, including as President of the American Society of Clinical Pharmacology and Therapeutics. She has received numerous awards and honors and was elected to the National Academy of Medicine in 2014.

## Summit 1: **Panelists**

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### **Mary V. Relling, PharmD**

Member and Endowed Chair, Department of Pharmaceutical Sciences, St. Jude Children's Research Hospital, Memphis, TN

Dr. Relling earned her undergraduate B.S. degree from the University of Arizona College of Pharmacy and her doctoral degree from the University of Utah College of Pharmacy. She completed post-doctoral fellowships with Dr. William Evans at St. Jude and with Dr. Urs Meyer at University of Basel. She joined St. Jude as a faculty member in 1988, and in 2003 was named chair of the Department of Pharmaceutical Sciences. She is also a professor at the University of Tennessee in the Colleges of Medicine and Pharmacy.

Her primary interests are in treatment and pharmacogenetics of childhood leukemia and clinical implementation of pharmacogenetic testing. Dr. Relling is part of NIH's Pharmacogenomics Research Network and co-founder of CPIC, the Clinical Pharmacogenetics Implementation Consortium. She has published over 400 original scientific manuscripts. She was elected to the Institute of Medicine in 2009.



### **Peter J. Hulick, MD, MMSc, FACMG**

Dr. Hulick is the Medical Director of the Mark R. Neaman Center for Personalized Medicine and Division Head for the Center for Medical Genetics at NorthShore University HealthSystem (NorthShore), which applies genetic analysis to prevention, diagnosis and treatment of inherited diseases and disorders. He joined NorthShore as an attending physician in medical genetics in 2008 and became Division Head of Medical Genetics in 2012.

Dr. Hulick also serves as a Clinical Assistant Professor in the Department of Human Genetics at the University of Chicago Pritzker School of Medicine. He has authored or co-authored more than 40 peer reviewed journal articles.

Dr. Hulick earned his medical degree from Jefferson Medical College in 2001. He completed a residency in internal medicine at St. Luke's Hospital - Mayo Clinic, and completed a clinical fellowship in medical genetics at Harvard Medical School. He also earned a master's degree in medical science from Harvard Medical School in 2007.



### **Sara Rogers, PharmD, BCPS**

Sara Rogers is a founding board member and the Director of Clinical Affairs at the American Society of Pharmacovigilance where she leads the Society's clinical, research, and educational initiatives. Dr. Rogers is a member of the Clinical Pharmacogenetics Implementation Consortium (CPIC) Dissemination Working Group, Co-chairman of the Pharmacogenomics Access and Reimbursement Coalition (PARC), and an organizational member of the NIH National Human Genomics Research Institute (NHGRI) Inter-Society Coordinating Committee PGx Working Group. She co-developed the Standardizing Laboratory Practices in Pharmacogenomics (STRIPE) Collaborative Community, a public-private multidisciplinary initiative to accelerate the development of personalized medicine practices as a standard of care. The STRIPE Initiative has engaged stakeholders across 15 different health care sectors in participating, including the FDA's Center for Devices and Radiological Health (CDRH).

As a clinician-scientist, Dr. Rogers conducts patient-centered research aimed at understanding the ethical and practical implications of pharmacogenomics. Prior to serving in these roles, Dr. Rogers was an Ambulatory Treatment Center Pharmacist at the University of Texas MD Anderson Cancer Center. She received her PharmD from the University of Houston College of Pharmacy and holds a bachelor's degree from the University of Texas at Austin with a concentration in biology.



**Sir Munir Pirmohamed, MB ChB (Hons), PhD, FRCP, FRCP(E), FBPhS, FFPM, FMedSci**

Professor Sir Munir Pirmohamed (MB ChB, PhD, FRCPE, FRCP, FBPhS, FMedSci) is David Weatherall Chair in Medicine at the University of Liverpool, and a Consultant Physician at the Royal Liverpool University Hospital. He is Director of the MRC 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 and is a non-executive director of NHS England, and has been appointed as President of British Pharmacological Society. 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.



**Trish Brown, MS, CGC**

Trish Brown is a board certified, genetic counselor with over two decades of experience in clinical genetics. She is currently the Director, AMR Payer Partner & Field Market Access Lead at Illumina. Ms. Brown is experienced in commercialization of genomic tests, operations, and lab benefit management. Prior to joining Illumina, she has held executive leadership roles at distinguished corporations such as LabCorp and Medco, and the entrepreneurial successes DNA Direct, Fabric Genomics and BeaconLBS.



**Esteban G. Burchard, MD, MPH**

Dr. Burchard is a Latino physician-scientist at the University of California, San Francisco (UCSF). He is currently Professor in the Departments of Bioengineering and Therapeutic Sciences and Medicine. He earned his MD from Stanford University School of Medicine, completed residency at the Brigham and Women's Hospital, MA and then a fellowship at the University of California, San Francisco. Dr. Burchard has formal training and expertise in internal medicine, pulmonary and critical care medicine, epidemiology, molecular genetics, genetic and clinical research. He initiated and now directs the largest study of asthma in minority children in the U.S. Dr. Burchard is the Director of the UCSF Asthma *Collaboratory*, a large interdisciplinary research program focusing on minority children and gene-environment interactions for asthma.

Dr. Burchard's team was the first to leverage genetic ancestry to identify novel genetic and environmental risk factors for lung disease and poor drug response among minority children with asthma. He is the Principal Investigator of the Asthma Translational Genomics Collaborative (ATGC), the largest whole-genome sequencing study of asthma in the world. Dr. Burchard is also the Principal Investigator of **PRIMERO: Puerto Rican Infant Metagenomic and Epidemiologic study of Respiratory Outcomes**, the largest birth cohort of minority children and respiratory disease in the U.S. Dr. Burchard has served as an advisor to the Director for the National Institutes of Health *All of Us* initiative. In August of 2018, Dr. Burchard received the Lifetime Achievement award from the National Medical Foundation and was inducted into San Francisco State University's Alumni Hall of Fame