

**National Institutes of Health
Advisory Committee to the Director
Precision Medicine Initiative Working Group**

Member Biographies

Esteban Gonzalez Burchard, M.D., M.P.H.



Esteban González Burchard, M.D., M.P.H., is a Professor of Medicine and Bioengineering and Therapeutic Sciences at the University of California, San Francisco (UCSF). Dr. Burchard received his M.D. degree and genetic training from Stanford University School of Medicine in 1995. He completed clinical training in internal medicine at Harvard’s Brigham and Women’s Hospital and Pulmonary/Critical Care Medicine training at UCSF. Dr. Burchard also completed clinical research training at the Harvard School of Public Health. He joined the UCSF faculty in 2001. Dr. Burchard completed additional training in genetic epidemiology with Dr. Neil Risch of Stanford University. In 2006 he received his master’s in public health in epidemiology from University of California, Berkeley. Dr. Burchard’s major academic interest centers on identifying genetic, social and environmental risk factors for asthma and drug response in children.

Robert M. Califf, M.D., M.A.C.C.



Robert M. Califf, M.D., M.A.C.C., is Deputy Commissioner for Medical Products and Tobacco for the U.S. Food and Drug Administration (FDA). Appointed in February 2015, Dr. Califf provides executive leadership to the Center for Drug Evaluation and Research, Center for Biologics Evaluation and Research, Center for Devices and Radiological Health, and Center for Tobacco Products. He also oversees the Office of Special Medical Programs and provides direction for cross-cutting clinical, scientific and regulatory initiatives, including personalized medicine, orphan drugs, pediatric science, and the advisory committee system.

He attended Duke University both as an undergraduate and for medical school, completing his residency at University of California, San Francisco, before returning to Duke for a cardiology fellowship. Dr. Califf served as the Donald F. Fortin, M.D., Professor of Cardiology at Duke and, most recently, Vice Chancellor for Clinical and Translational Research. An international leader in cardiovascular medicine, health outcomes, healthcare quality and medical economics, he is recognized by the Institute for Scientific

Information as one of the top 10 most cited medical authors, with more than 1,200 peer-reviewed publications.

Dr. Califf co-chaired the Clinical Trials Transformation Initiative, a public-private partnership co-founded by Duke and the FDA to identify and promote practices that will increase the quality and efficiency of clinical trials. He also served as co-principal investigator of Duke's Clinical and Translational Science Award, funded by the National Center for Advancing Translational Sciences; principal investigator for the coordinating center of the NIH Health Care Systems Research Collaboratory, a Common Fund program that develops, tests and disseminates innovative methodologies for pragmatic clinical research; and co-principal investigator for the Baseline Study, a collaboration among Duke University, Stanford University, and Google that seeks new understandings of states of health and disease in humans.

Tony Coles, M.D., M.P.H.



Dr. Coles was named chairman and Chief Executive Officer of Yumanity Therapeutics LLC in October of 2014. Yumanity Therapeutics is a biopharmaceutical company specializing in Alzheimer's and Parkinson's diseases. Just prior, Dr. Coles served as the chairman and chief executive officer of TRATE Enterprises LLC, a privately held company. Dr. Coles served as President, Chief Executive Officer, and Chairman of the Board of Onyx Pharmaceuticals, Inc., a biopharmaceutical company, from 2012 -2013, having served as its President and Chief Executive Officer, and a member of its board of directors, from 2008-2012. Under his leadership, Onyx introduced two new innovative cancer medicines to patients and established the company's international presence outside of the U.S.

Dr. Coles completed his cardiology and internal medicine training at Massachusetts General Hospital and was a research fellow at Harvard Medical School. He earned an M.D. degree from Duke University, a master's degree in public health from Harvard University, and an undergraduate degree from Johns Hopkins University. Dr. Coles currently serves as a member of the board of directors of McKesson Corporation. He is vice chair of the board of trustees for Johns Hopkins University and is a member of the board of trustees for Johns Hopkins Medicine. Dr. Coles also serves as a director of the board of the U.S. Olympic and Paralympic Foundation and is a member of the Council of the Smithsonian's National Museum of African American History and Culture.

Rory Collins, F.Med.Sci.



Rory Collins studied Medicine at St Thomas's Hospital Medical School, London University (1974-1980), and Statistics at George Washington University (1976-1977) and at Oxford University (1982-83). In 1985, he became co-director with Professor Sir Richard Peto of the University of Oxford's Clinical Trial Service

Unit and Epidemiological Studies Unit. In 1996, he was appointed Professor of Medicine and Epidemiology at Oxford, supported by the British Heart Foundation. He became principal investigator and chief executive of the UK Biobank prospective study of 500,000 people in September 2005. In July 2013, he became the Head of the Nuffield Department of Population Health at Oxford University. His work has been in the establishment of large-scale epidemiological studies of the causes, prevention and treatment of heart attacks, other vascular disease and cancer. He was knighted in 2011 for his services to science.

Andrew J. Conrad, Ph.D.



Andy Conrad, Ph.D., is the Head of Google Life Sciences where he oversees more than 150 scientists working on a wide spectrum of healthcare related projects. Previously, he was Chief Scientific Officer of Laboratory Corporation of America (LabCorp). Dr. Conrad co-founded the National Genetics Institute, where he served as Chief Scientific Officer. Dr. Conrad also founded the California Health and Longevity Institute. In addition, he serves as the Chief Scientific Advisor of the North Carolina Research Campus, an academic collaboration between Duke University, University of North Carolina, and North Carolina State University.

Joshua Denny, M.D., M.S., F.A.C.M.I.



Dr. Joshua Denny is an Associate Professor in the Departments of Biomedical Informatics and Medicine at Vanderbilt University Medical Center. He currently focuses on applications of algorithms to accurately identify phenotypes from electronic health record (EHR) data. Using these data, he has led efforts to discover genome-phenome associations to better understand disease risk and drug response. A primary interest of his lab has been development of the phenome-wide association study (PheWAS) method applied to EHRs to rapidly uncover genetic pleiotropy and highlight potential drivers of genetic associations with endophenotypes. He helps lead efforts for local and network pharmacogenetics implementation activities, such as the Vanderbilt PREDICT program, which has tested >14,000 individuals to provide genetic-tailored therapy recommendations. He is part of the Electronic Medical Records and Genomics network, Pharmacogenomics Research Network, a principal investigator in the Implementing Genomics in Practice networks, and is a principal investigator of other grants exploring phenomics, EHR data mining, natural language processing, and medical education. He is past recipient of the American Medical Informatics Association New Investigator, Homer Warner award, and Vanderbilt Chancellor Award for Research. Dr. Denny also remains active in clinical care and teaching.

Karen B. DeSalvo, M.D., M.P.H., M.Sc.



Dr. Karen DeSalvo serves as the National Coordinator for Health Information Technology at the U.S. Department of Health and Human Services (HHS), where she is leading the nation's charge to develop an interoperable health IT system that will help to improve the health of consumers no matter where they live, work and play. Her career has focused her career on improving access to affordable, high quality care for all people, with an emphasis on vulnerable populations.

Before joining HHS, she served as the City of New Orleans Health Commissioner from 2011-2014. While there, she transformed an out-of-date health department into one that has since achieved national accreditation, and restored health care to devastated areas of the city, including leading the establishment of a new, state-of-the-art public hospital.

Prior to her work for the City of New Orleans, Dr. DeSalvo was a Professor of Medicine and Vice Dean for Community Affairs and Health Policy at Tulane University School of Medicine. She led efforts in post-Katrina New Orleans to build an innovative model of neighborhood-based primary care and mental health services for low-income, uninsured and other vulnerable individuals, one that now boasts a sophisticated health IT infrastructure. She earned her medical doctorate and master's degree in public health from Tulane University, and master's in Clinical Epidemiology from Harvard School of Public Health.

Sue Desmond-Hellmann, M.D., M.P.H.



Dr. Sue Desmond-Hellmann is the Chief Executive Officer of the Bill & Melinda Gates Foundation where she leads efforts to promote equity for all people around the world. She sets strategic priorities, monitors results and facilitates relationships with key partners. Dr. Desmond-Hellmann has deep expertise in health and medicine and a strong underpinning of working at a large institution.

Prior to joining the foundation in 2014, she was Chancellor of the University of California at San Francisco (UCSF), responsible for all aspects of the professional and graduate schools, medical center and research programs. She oversaw an in-depth review of the university's business model, developed a comprehensive strategic plan, supported the creation of research partnerships with industry leaders such as Pfizer and Bayer and appointed UCSF's first Vice Chancellor of Diversity and Outreach. She remains a full tenured professor at UCSF.

Prior to UCSF, Dr. Desmond-Hellmann spent 14 years at Genentech, where she served in a number of roles, ending as President, Product Development (2004 – 2009). She was responsible for Genentech's

pre-clinical and clinical development process, research and development, business development and product portfolio management. She also served as a member of Genentech's executive committee. In March 2013, she was appointed to the board of directors at Facebook Inc., and since 2010 she has served on the board of directors of the Procter & Gamble Co.

Dr. Desmond-Hellmann completed her undergraduate education and medical studies at the University of Nevada, Reno, followed by clinical training at UCSF, where she served as associate adjunct professor of epidemiology and biostatistics. She is board-certified in internal medicine and medical oncology and holds a master's degree in public health from the University of California, Berkeley. During her training at UCSF, she spent two years as a visiting faculty member at the Uganda Cancer Institute studying HIV/AIDS and cancer. She later worked for two years in private practice as a medical oncologist before returning to clinical research.

Eric Dishman



Eric Dishman is an Intel Fellow and General Manager of the Health and Life Sciences Group in the Datacenter and Connected Systems Group. He is responsible for driving Intel's cross-business strategy, research and development, product and policy initiatives for health and life science solutions. His organization focuses on growth opportunities for Intel in health IT, genomics and personalized medicine, consumer wellness and care coordination technologies in more than a dozen countries.

Dishman founded Intel's first Health Research and Innovation Lab in 1999, and, in 2005, was a founding member of Intel's Digital Health Group. He is widely recognized as a global leader in healthcare innovation with specific expertise in home and community-based technologies and services for chronic disease management and independent living. He is also known for pioneering innovation techniques that incorporate anthropology, ethnography and other social science methods into the design and development of new technologies. He and his team's work have been featured in publications including the *New York Times*, *Washington Post*, *Business Week*, and *USA Today*. The *Wall Street Journal* named him one of "12 People Who Are Changing Your Retirement."

He also co-founded some of the world's largest research and policy organizations devoted to advancing the cause of independent living, including the Technology Research for Independent Living Centre, the Center for Aging Services Technologies, the Everyday Technologies for Alzheimer's Care program, and the Oregon Center for Aging and Technology. Dishman has received numerous awards for his work in helping to shape the future of health care.

Kathy Giusti, M.B.A.



Kathy Giusti, a multiple myeloma patient, is the Founder and Executive Chairman of the Multiple Myeloma Research Foundation (MMRF) and the Multiple Myeloma Research Consortium. Since founding the MMRF in 1998, Giusti has led the Foundation, in coordination with its partners, in establishing innovative, collaborative research models in the areas of tissue banking, genomics and clinical trials. These models are dramatically accelerating the pace at which lifesaving treatments are brought to patients and are building an end-to-end solution in precision medicine. Today Giusti is widely recognized as a champion of open-access data sharing and a strong advocate for patient engagement, not only in their cancer care, but as part of the research and drug development process.

Giusti's leadership has earned her several prestigious awards and recognitions. Most recently, she was ranked #19 on Fortune Magazine's Worlds' 50 Greatest Leaders. In 2013, she was named an Open Science Champion of Change by the White House and received the Leadership in Personalized Medicine Award by the Personalized Medicine Coalition. In 2011, she was named to the TIME 100 List of the world's most influential people. She has also received the American Association for Cancer Research Centennial Medal for Distinguished Public Service, the Harvard Business School Alumni Achievement Award, and the Healthcare Businesswomen's Association's Woman of the Year Award. Giusti received her M.B.A. in general management from Harvard Business School. She holds an honorary doctorate from the University of Vermont.

Jo Handelsman, Ph.D.



Dr. Jo Handelsman is the Associate Director for Science at the White House Office of Science and Technology Policy, appointed by President Obama and confirmed by the Senate in June of 2014. Dr. Handelsman helps to advise President Obama on the implications of science for the nation, ways in which science can inform U.S. policy, and on federal efforts in support of scientific research.

Prior to joining OSTP, Dr. Handelsman was the Howard Hughes Medical Institute Professor and Frederick Phineas Rose Professor in the Department of Molecular, Cellular and Developmental Biology at Yale University. She previously served on the University of Wisconsin-Madison faculty as a Professor in Plant Pathology from 1985 to 2009 and as Professor and Chair of the Department of Bacteriology from 2007-2009. In 2013, she served as President of the American Society for Microbiology. From 2002-2010, Dr. Handelsman was the co-founder and co-director of the Wisconsin Program for Scientific Teaching, the Yale Center for Scientific Teaching and the National Academies Summer Institute on Undergraduate

Education in Biology, programs focused on teaching principles and practices of evidence-based education to current and future faculty at colleges and universities nationwide.

Dr. Handelsman is an expert in science education and women in science and in 2011 received the Presidential Award for Excellence in Science Mentoring. Dr. Handelsman also co-chaired the PCAST working group that developed the 2012 report, “Engage to Excel,” which contained recommendations to the President to strengthen STEM education to meet the workforce needs of the next decade in the United States. Dr. Handelsman received a bachelor of science from Cornell University and a Ph.D. in molecular biology from the University of Wisconsin-Madison.

Kathy Hudson, Ph.D.



Kathy L. Hudson, Ph.D., is the Deputy Director for Science, Outreach and Policy at the National Institutes of Health (NIH). Dr. Hudson leads the science policy, legislation, communications and outreach efforts of the NIH and serves as a senior advisor to the NIH Director. She is responsible for creating major new strategic and scientific initiatives for NIH and is currently leading the planning and creation of the President’s Precision Medicine Initiative. Dr. Hudson was a key architect of the National Center for Advancing Translational Sciences and the NIH BRAIN Initiative. She directs the agency’s efforts to advance biomedical science through policy development and innovative projects and partnerships.

Dr. Hudson’s professional experience includes serving as the Acting Deputy Director of the National Center for Advancing Translational Sciences, NIH; NIH Chief of Staff; Assistant Director of the National Human Genome Research Institute, NIH; and founder and Director of the Genetics and Public Policy Center at John Hopkins University. Also at Hopkins, Dr. Hudson was an Associate Professor in the Berman Institute of Bioethics, Institute of Genetic Medicine, and Department of Pediatrics. Dr. Hudson holds a Ph.D. in molecular biology from the University of California at Berkeley, a master’s of science in microbiology from the University of Chicago, and a bachelor of arts in biology from Carleton College.

Sekar Kathiresan, M.D.



Sekar Kathiresan, a physician scientist and a human geneticist, is the Director of preventive cardiology at Massachusetts General Hospital (MGH), a member of the Broad Institute, and associate professor of medicine at Harvard Medical School. Kathiresan has leveraged human genetics to understand the root causes of heart attack and to improve preventive cardiac care. His scientific contributions include:

Highlighting new biological mechanisms underlying heart attack, using genetic analysis to distinguish cause from mere correlation and discovering mutations that protect against heart attack risk.

Kathiresan received his bachelor of arts in history and graduated summa cum laude from the University of Pennsylvania in 1992 and his medical degree from Harvard Medical School in 1997. Kathiresan completed his clinical training in internal medicine and cardiology at MGH. He served as chief resident in internal medicine at MGH in 2002-2003. Kathiresan pursued research training in cardiovascular genetics through a combined experience at the Framingham Heart Study and the Broad Institute. In 2008, he joined the faculties of the MGH Cardiology Division, Cardiovascular Research Center and Center for Human Genetic Research. In his clinical practice, he helps patients with a strong family history avoid a heart attack, including the application of mobile health technologies to promote healthy behaviors.

Sachin Kheterpal, M.D., M.B.A.



Dr. Kheterpal is an Associate Professor of Anesthesiology at the University of Michigan Medical School. He received his Bachelor of Science, Medical Degree, and Masters in Business Administration from the University of Michigan. Prior to a clinical anesthesiology career, he was the lead architect of a leading commercially available clinical information system – General Electric Centricity. He led the global clinical information system product development team at GE Healthcare IT. He brings nearly two decades of informatics, software development and business administration experience to perioperative outcomes research. He is the principal investigator of the multicenter perioperative outcomes group (MPOG), a research and quality improvement consortium of more than 40 anesthesiology and surgical departments.

He is recognized as a national leader in perioperative large dataset clinical research and has published numerous articles, editorials and book chapters regarding intraoperative management and long-term postoperative outcomes. Using innovative techniques to integrate administrative, electronic health record and registry data across institutions, Dr. Kheterpal has created the MPOG centralized research database, with more than 3 million perioperative records with risk adjusted long term outcome data and detailed clinical intervention data. Dr. Kheterpal's current research focus is evaluating the comparative effectiveness of intraoperative anesthesiology interventions on long-term patient outcomes. Dr. Kheterpal is the Senior Director of Research IT for the University of Michigan Medical School. He is also the faculty lead for the Research Data Warehouse, an enterprise-wide tool designed to expose healthcare process data for clinical and translational research which is linked to the Michigan Genomics Initiative, an enterprise-wide genome bank recruiting more than 10,000 patient samples per year.

Shiriki K. Kumanyika, Ph.D., M.P.H.



Dr. Shiriki Kumanyika is emeritus professor of epidemiology in the Department of Biostatistics and Epidemiology at the University of Pennsylvania Perelman School Of Medicine. She has an interdisciplinary background and holds advanced degrees in social work, nutrition, and public health. During her tenure on the Penn Medicine faculty, Dr. Kumanyika also served as the Associate Dean for Health Promotion and Disease Prevention, held a secondary appointment as Professor of Epidemiology in the Department of Pediatrics (Division of Gastroenterology, Nutrition Section), and was affiliated with numerous Penn institutes and centers. She was the Founding Director of Penn's interdisciplinary, multi-school Master of Public Health program.

Dr. Kumanyika's research focuses on identifying effective strategies to reduce nutrition-related chronic disease risks, with a particular focus on achieving health equity for black Americans. She has led or collaborated on single- or multi-center randomized clinical trials or observational studies related to obesity, salt intake and other aspects of diet. Several of these studies have evaluated interventions to promote healthy eating and physical activity in African American children or adults in clinical or community-based settings. In 2002, Dr. Kumanyika founded and continues to chair the African American Collaborative Obesity Research Network, a national network that seeks to improve the quantity, quality and effective translation of research on weight issues in African American communities. She has extensive experience in advisory roles related to public health and nutrition policy in the U.S. and abroad. Dr. Kumanyika is a member of the Institute of Medicine and is President of the American Public Health Association for 2015.

Richard Lifton, M.D., Ph.D.



Richard Lifton is Chair of the Department of Genetics, Sterling Professor of Genetics and Internal Medicine, Founder and Executive Director of the Yale Center for Genome Analysis, and Investigator of the Howard Hughes Medical Institute at Yale University School of Medicine. He graduated from Dartmouth College, and received M.D. and Ph.D. degrees in biochemistry from Stanford University. He served as resident and chief resident in Internal Medicine at Brigham and Women's Hospital prior to moving to Yale.

Dr. Lifton has used human genetics and genomics to identify mutations and molecular mechanisms underlying common diseases including cardiovascular disease, bone disease and neoplasia. Dr. Lifton is

an elected member of the National Academy of Sciences, the Institute of Medicine and the American Academy of Arts and Sciences. He serves on the Governing Council of the National Academy of Sciences, the Advisory Council to the NIH Director, and the Lasker Awards Jury. His awards include the 2008 Wiley Prize for Biomedical Sciences and the 2014 Breakthrough Prize in Life Sciences.

Spero Manson, Ph.D.



Spero M. Manson, Ph.D. (Pembina Chippewa) is Distinguished Professor of Public Health and Psychiatry, directs the Centers for American Indian and Alaska Native Health, and serves as Associate Dean of Research in the Colorado School of Public Health at the University of Colorado Denver's Anschutz Medical Center. His programs include nine national centers, totaling \$63 million in sponsored research, program development, training and collaboration with 250 native communities, spanning rural, reservation, urban, and village settings across the country. Dr. Manson has published 200 articles on the assessment, epidemiology, treatment and prevention of physical, alcohol, drug, as well as mental health problems over the developmental life span of native people. His numerous awards include the American Public Health Association's prestigious Rema Lapouse Mental Health Epidemiology Award (1998), three special recognition awards from the Indian Health Service (1996, 2004, 2011), election to the Institute of Medicine (2002); two Distinguished Mentor Awards from the Gerontological Society of America (2006; 2007), the AAMC's Nickens Award (2006); the George Foster Award for Excellence from the Society for Medical Anthropology (2006), and NIH's Health Disparities Award for Excellence (2008). Dr. Manson is widely acknowledged as one of the nation's leading authorities in regard to Indian and native health.

Timothy J. O'Leary, M.D.

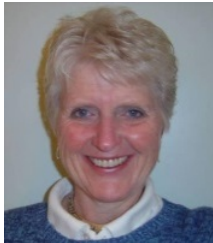


Timothy O'Leary, M.D., Ph.D., is the Chief Research and Development Officer (CRADO) of the Veterans Health Administration Office of Research and Development. As CRADO, Dr. O'Leary oversees a nationwide research program based at more than 100 U.S. Department of Veteran Affairs (VA) medical centers that addresses the full-range of health concerns affecting veterans. The program, dating back to 1925, includes biomedical, clinical, rehabilitation and health services research. It has resulted in three Nobel prizes, seven Lasker awards, and numerous other national and international honors for its investigators. O'Leary holds a doctorate in physical chemistry from Stanford University and a medical degree from the University of Michigan.

He is certified in anatomic pathology by the American Board of Pathology and in molecular genetic pathology by the American Board of Pathology and the American Board of Medical Genetics. Prior to his

VA service, O'Leary chaired the department of cellular pathology at the Armed Forces Institute of Pathology for more than 15 years. He joined VA in 2004, and has previously served as director of Biomedical Laboratory Research and Development, director Clinical Sciences Research and Development, and Deputy CRADO. O'Leary also served as a reserve member of the Public Health Service Commissioned Corps from 1979 to 2010, serving two tours on active duty. His own research interests include genomics, proteomics and ultrasensitive detection of biological toxins. He has served on numerous federal panels and advisory committees, including the Health and Human Services Clinical Laboratory Improvement Advisory Committee and the Food and Drug Administration Hematology and Devices Panel. O'Leary, the holder of four patents, has authored or co-authored more than 175 journal articles and numerous book chapters and technical reports. He is a past president of the Association for Molecular Pathology and served as editor-in-chief for the Journal of Molecular Diagnostics, and holds an appointment as Adjunct Professor of Pathology, University of Maryland School of Medicine.

P. Pearl O'Rourke, M.D.



Dr. O'Rourke is the Director of Human Research Affairs at Partners HealthCare Systems in Boston and an Associate Professor of Pediatrics at Harvard Medical School. As the Director of Human Research Affairs she is responsible for the systems that support the regulatory and ethical oversight of human research and the responsible conduct of research.

Dr. O'Rourke has worked as a pediatric critical care physician at the Children's Hospital, Boston and at the Children's Hospital, University of Washington in Seattle where she was the Director of the Pediatric Intensive Care Unit. In her career in pediatric critical care, she was active in clinical research in extracorporeal membrane oxygenation, liquid ventilation, high frequency ventilation and pediatric resuscitation. In Seattle she served many years as a member of the Institutional Review Board. She has also been involved in international medical care, serving in China and Indonesia with Project HOPE.

In 1995-1996, Dr. O'Rourke did a Robert Wood Johnson Health Policy fellowship and worked for Senator Edward Kennedy as a member of the Labor Committee Staff. Following this fellowship, she became the Deputy Director of the Office of Science Policy in the Office of the Director at the NIH where she worked on issues such as privacy, gene therapy (transfer) embryonic stem cells and genetic discrimination. She is currently a member and past Chairman of the Public Responsibility in Medicine and Research Board. Her expertise and interests include: human subject protection in research, human embryonic stem cells, HIPAA and the Privacy Rule, conflicts of interests in research, and central IRBs.

Bray Patrick-Lake, M.F.S.



Ms. Patrick-Lake supports efforts to actively engage participant partners in Duke University's research programs, as well as patient advocacy organizations and other stakeholders in Clinical Trials Transformation Initiative (CTTI) efforts to improve clinical trials. She implements strategies to enhance awareness of Duke's Clinical and Translational Science Awards (CTSA) and CTTI's work, particularly with patient advocates, and extend its impact by working in partnership with the patient advocacy community on research design and conduct and improvement of the clinical trial enterprise.

In 2010, Ms. Patrick-Lake founded the Patent Foramen Ovale (PFO) Research Foundation in response to the lack of definitive scientific information regarding the condition of PFO after being a patient in an aborted clinical trial. Ms. Patrick-Lake has served as a patient representative at the FDA on a variety of advisory committees and panels, in workgroups for EMA and NIH, as a guest lecturer and an external reviewer for IOM, and as a patient stakeholder or co-investigator for Agency for Healthcare Research and Quality and Patient-Centered Outcomes Research Institute grants.

She is a member of the PCORnet Coordinating Center's Executive Leadership Committee where she develops patient engagement strategies, MDEpiNet's National Medical Device Registry Task Force, the Medical Device Innovation Consortium's Patient-centered Benefit-Risk Steering Committee, American College of Cardiology (ACC) Foundation's Patient-centered Care Shared Decision Making Workgroup, Develop, Innovate, Advance's Patient Fellowship Selection Committee, ACC Transcatheter Valve Therapy Registry Stakeholder Advisory Committee, and is a board member for the Alliance for Headache Disorders Advocacy.

Richard Platt, M.D., M.Sc.



Dr. Platt is Professor and Chair of the Harvard Medical School Department of Population Medicine, at the Harvard Pilgrim Health Care Institute. He is principal investigator of the FDA Sentinel System, which performs post-marketing safety surveillance using the electronic health data from over 175 million people. Dr. Platt is also principal investigator of PCORI's PCORnet coordinating center, a consortium of 29 networks that will use electronic health data to conduct comparative effectiveness research. He co-leads the coordinating center of the NIH Health Care System Research Collaboratory and leads a CDC Prevention Epicenter. He co-chairs the Comparative Effectiveness Research Innovation Collaborative of the Institute of Medicine's Roundtable on Value and Science-Driven Healthcare, and is a member of the Association of American Medical Colleges Advisory Panel on Research.

Terry M. Rauch, Ph.D.



Dr. Terry Rauch is the Director of Research and Development in the Policy and Oversight Office of the Assistant Secretary of Defense, US Department of Defense. Dr. Rauch has over 35 years of experience in many facets of the Military Health System and has held numerous senior level positions in the Army and the Office of the Secretary of Defense. As a senior military officer he served as the Chief of Staff to the Assistant Secretary of Defense for Health Affairs, and served as principal advisor to four Assistant Secretaries of Defense for Health Affairs on matters pertaining to biomedical research, development and acquisition as well as medical products and devices needed to protect U.S. military forces against Chemical, Biological, Radiological and Nuclear threats. He commanded the U.S. Army Public Health Command-Europe, a scientific and technical organization that provided comprehensive preventive medicine services to garrisoned U.S. Army forces in Europe. Dr. Rauch served as the Chairman of the North Atlantic Treaty Organization (NATO) Working Group on Preventive Medicine advising Stabilization Forces–Bosnia and Stabilization Forces–Kosovo on preventive medicine matters. As Deputy Commander, and then later as Chief of Staff, of the U.S. Army Medical Research and Materiel Command he supported the daily management and integration of a medical research, development, and acquisition program encompassing 11 subordinate laboratories in six countries, 3,000 personnel, and over \$1 billion in funding.

Dr. Rauch retired as a Colonel from the U.S. Army in October 2005 and joined Science Applications International Corporation (SAIC) as a Senior Principal Life Scientist. At SAIC, he focused on comprehensive strategic planning and analysis for the Office of the Secretary of Defense on matters relating to Defense biomedical research, development and acquisition investment strategies and their supporting infrastructure. His focus was also on planning and analysis of drug discovery and medical product development in support of the Department of Defense and National Institutes of Health, as well as health policy analysis and product development in support of medical countermeasures for Joint Force Health Protection and to protect the public health. He left SAIC in March 2009 for his current position.

He has served as an expert medical witness for the U.S. Department of Justice as well as private industry on anthrax vaccine safety and efficacy and authored numerous scientific and technical publications in the field of psychology, neurosciences, and national security matters. Dr. Rauch is a graduate of the U.S. Army War College and is widely sought after as an expert on business process and management transformation in biomedical research, development and acquisition. Dr. Rauch represented the United States in the World Military Cross Country Championships, and was a three-time member of the All Army Marathon team, twice selected as team captain. His military awards include the Defense Superior Service Medal (with 2 oak leaf clusters), Legion of Merit, Meritorious Service Medal (with 4 oak leaf clusters), Order of Military Medical Merit, Expert Field Medical Badge, Parachutist Badge, and Air Assault Badge. He is currently appointed by the Secretary of Veterans Affairs to serve on the National Research Advisory Council. Dr. Rauch graduated from the University of Cincinnati with a B.S. in psychology and a Ph.D. in biology and psychology.

Sue Siegel



Sue Siegel leads two of General Electric's (GE) growth and innovation initiatives as Chief Executive Officer, GE Ventures & Healthymagination. GE Ventures invests in and partners with the start-up ecosystem across healthcare, energy, software, advanced manufacturing and lighting. Healthymagination harnesses innovation and partnership inside and outside GE to improve the quality, access and affordability of healthcare.

Sue has more than 30- years of experience in corporate and venture capital. Previously, as a financial venture capitalist, Sue led investments in personalized medicine, digital health and life sciences at Silicon Valley-based Mohr Davidow Ventures. Before venture capital, she drove strategy and technology development as well as new market growth at Bio-Rad, DuPont, Amersham and Affymetrix. As President and a Board Member of Affymetrix, Sue led the company's transformation from a pre-revenue start up to a global, multibillion dollar market cap genomics leader.

Sue has served on over two dozen private and public corporate boards. She currently serves on the boards of the National Venture Capital Association, Stanford Hospital Board's IT Committee, Harvard Partners' Innovation Advisory Board, the Cleveland Clinic's Innovation Council, University of California's Innovation Council and serves on the Executive Committee of Santa Clara University's Center for Science, Technology, and Society's Advisory Board. She is a President's Circle member of the National Academies of Science, a member of YPO-WPO, Women Corporate Directors, and a Henry Crown Fellow of the Aspen Institute. In the bestselling business book: *Multipliers: How The Best Leaders Make Everyone Smarter*, Sue was a featured "Multiplier". She was recognized as one of "The 100 Most Influential Women in Silicon Valley."

Jay Shendure, M.D., Ph.D.



Dr. Jay Shendure is an Associate Professor of Genome Sciences at the University of Washington, where his lab's focus is to develop and apply new technologies in genomics and molecular biology, with a particular emphasis on next-generation DNA sequencing and its applications in human genetics. He is the recipient of the Curt Stern Award from the American Society of Human Genetics in 2012, the FederaPrijns from the Federation of Dutch Medical Scientific Societies in 2013, and a National Institutes of Health Director's Pioneer Award in 2013.