Biographies

Murray Aitken, MBA, is executive director of the IMS Institute for Healthcare Informatics. The Institute provides policy setters and decision makers in the global health sector with objective, transformational insights into healthcare dynamics derived from granular analysis of information. In this role since January 2011, Mr. Aitken previously served in other roles at IMS including healthcare insights, corporate strategy, and consulting and services. Prior to joining IMS in 2001, Mr. Aitken was a partner at McKinsey & Company where he was based in the New Jersey, Seoul, and Los Angeles offices. Mr. Aitken writes and speaks regularly on the challenges facing the global healthcare industry and prospects for improving patient outcomes, managing costs and maximizing access globally through better use of healthcare information. Mr. Aitken's recent research has focused on the changing dynamics of spending on medicines, healthcare utilization, and related policy issues and been published in *Health Affairs* and as working papers from the *National Bureau of Economic Research.* Mr. Aitken received an MBA degree with distinction from Harvard University, and holds a Master of Commerce degree from the University of Auckland in New Zealand.

Gabriel S. Eichler, PhD, is a trained bioinformatician with a career focused on health data sciences including everything from molecular pharmacology to mining personal health data. He currently leads PatientLikeMe's work with its community of over 30,000 multiple sclerosis patients. Prior to joining PatientsLikeMe, Gabriel was the Senior Vice President of consulting at the Nature Publishing Group-backed start-up, Relay Technology Management. He has previously spent time leading data science open innovation at InnoCentive, as a healthcare consultant at McKinsey and in Judah Folkman's laboratory at Harvard Medical School. Gabriel took his MSc. and Phd. in Bioinformatics jointly from Boston University and the National Cancer Institute. His doctoral thesis work focused on methods of interpreting high-dimensional data. His BSE is in Computer Science from the University of Pennsylvania. Gabriel has authored over 15 papers and a book chapter on cancer, personalized medicine, genomics, metabolomics and systems biology.

Dalvir Gill, PhD, became chief executive officer of TransCelerate Biopharma in January, 2013. Formerly president of Phase II-IV Drug Development at PharmaNet-i3, Dr. Gill has more than twenty-five years of drug development experience. He holds a BS from the University of Hertfordshire, a PhD from the Royal Free Hospital School of Medicine in London, and an executive program diploma in the health economics of pharmaceuticals from the Stockholm School of Economics. He is a fellow of the Royal Society of Medicine.

Kathy Hudson, PhD, is the deputy director for science, outreach, and policy (DDSOP) at the National Institutes of Health (NIH). In April 2013, Dr. Hudson was appointed an ex-officio member of the NIH Advisory Council's Working Group for the Brain Research through Advancing Innovative Neurotechnologies (BRAIN) Initiative, with a goal to understand and map the human brain. As NIH's DDSOP, Dr. Hudson works with the NIH leadership developing and implementing new strategic and scientific initiatives for the world's largest biomedical research agency, which has an annual budget of $31 billion, to advance NIH's mission of enhancing public health. Dr. Hudson's professional experience includes serving as the Acting Deputy Director of the National Center for Advancing Translational Sciences, NIH; the NIH Chief of Staff; the Assistant Director of the National Human Genome Research Institute, NIH; and the founder and Director of the Genetics and Public Policy Center, John Hopkins University (JHU). Dr.

Hudson holds a Ph.D. in Molecular Biology from the University of California at Berkeley, an M.S. in Microbiology from the University of Chicago, and a B.A. in Biology from Carleton College.

Kenneth I. Kaitin, PhD, is professor and director at the Tufts Center for the Study of Drug Development at Tufts University School of Medicine. He is also a visiting lecturer at the Tuck School of Business at Dartmouth College, and he serves on the faculty of the European Center for Pharmaceutical Medicine at the University of Basel. Dr. Kaitin writes and speaks regularly on factors that contribute to the slow pace and high cost of pharmaceutical research and development as well as the impact of efforts to speed the drug development process. He has provided public testimony before the United States Congress on pharmaceutical development, regulation, and policy issues, and he currently serves as an expert consultant to the U.S. Department of Defense on bioterror countermeasures initiatives. An internationally recognized expert on the science of drug development, Dr. Kaitin is frequently quoted in business and trade press on trends in the research and development industry and on new models of innovation. He is a former president of the Drug Information Association, and he is currently editor-in-chief of *Expert Review of Clinical Pharmacology*. He is on the editorial boards of a number of peer-review journals, and he serves on the boards of directors and scientific advisory boards of several public, private and not-for-profit life sciences companies and organizations. In 2011, Dr. Kaitin received the Dr. Louis M. Sherwood Award, granted by the Academy of Pharmaceutical Physicians and Investigators. Dr. Kaitin received a BS from Cornell University and a MS and PhD in pharmacology from the University of Rochester.

Martin S. Kohn, MD, MS, FACEP, CPE, FACPE, is chief medical scientist for Care Delivery Systems in IBM Research. He is a leader in IBM's support for the transformation of healthcare, including development of personalized care, outcomes-based models, and payment reform. His research work includes health-care population analytics and the role of expert systems in the clinical decision process, including the use of the Watson supercomputer in healthcare. He speaks frequently on the issues on healthcare transformation, the role of information technology, the Patient Centered Medical Home and clinical decision support. Dr. Kohn is a co-author of IBM's white paper "Patient-Centered Medical Home – What, Why and How." He has also worked with the World Economic Forum steering committee on sustainable healthcare models and the IOM committee on evidence-supported healthcare. He is on the editorial board of the *Journal of Emergency Medicine*. Dr. Kohn was previously in IBM Healthcare Strategy and Change which helped healthcare systems and clinicians optimize process and make best use of health information technology. He has published multiple articles and book chapters on clinical, technical, and management subjects. Dr. Kohn is an emergency physician with over 30 years of hospital-based practice and management experience. He is an alumnus of MIT, Harvard Medical School, and NYU, and is a Fellow of the American College of Emergency Physicians and the American College of Physician Executives.

Jonathan S. Leff is a partner with the healthcare investment firm Deerfield Management and chairman of the Deerfield Institute. Mr. Leff focuses on venture capital investments in biotechnology. Prior to joining Deerfield, for more than 16 years Mr. Leff was with Warburg Pincus, where he led the firm's investment efforts in biotechnology and pharmaceuticals. Mr. Leff has also been active in public policy discussions related to healthcare and medical innovation. He serves as a member of the Executive Committee of the Board of the National Venture Capital Association (NVCA) and leads NVCA's life sciences industry efforts as Chair of NVCA's Medical Innovation and Competitiveness Coalition (NVCA-MedIC), and he also serves on the Emerging Companies Section Board of the Biotechnology Industry Organization. Mr. Leff is a member of several not-for-profit Boards, including the Spinal Muscular Atrophy Foundation, Friends of Cancer Research, and the Columbia University Medical Center Board of Advisors.

Bryan R. Luce, PhD, MBA, is the Patient-Centered Outcomes Research Institute's (PCORI) chief science officer. He is responsible for leading the development and implementation of PCORI's patient-centered comparative clinical effectiveness research (CER) agenda. Previously, he was at United BioSource Corporation (UBC), where he served as senior vice president for science and policy and focused on CER and the development of novel research methods to support a more patient-centered approach to care. Dr. Luce joined UBC in 2004 with the organization's acquisition of MEDTAP International, a company he founded to provide health economics and outcomes research services for the pharmaceutical and biotechnology industry. In 2008, he founded the Pragmatic Approaches to Comparative Effectiveness (PACE) Initiative, a collaborative effort to improve the practicality and efficiency of comparative clinical studies to meet demands by payers, clinicians, and policy makers for more "real-world" evidence. He has also served in leadership positions at Battelle, Centers for Medicare and Medicaid Services, and Office of Technology Assessment of the United States Congress. He has been an advisor to numerous government and nonprofit agencies as well as pharmaceutical and device firms worldwide. Dr. Luce holds adjunct faculty positions at the Department of Health Policy, Jefferson Medical College, the Leonard D. Schaeffer Center for Health Policy and Economics, University of Southern California, and the Department of Pharmacy, University of Washington. A former Special Forces Officer, Luce is a Lieutenant Colonel (Retired), Medical Service Corps, US Army Reserves. Luce served as the 5th president of the International Society for Health Economics and Outcomes Research (ISPOR) and in 2008 received the society's highest recognition, the Avedis Donabedian Outcomes Research Lifetime Achievement Award. He received his bachelor's and master's degrees from the University Massachusetts at Amherst and his doctorate from the School of Public Health at the University of California at Los Angeles.

Mark McClellan, MD, PhD, is a senior fellow and director of the Health Care Innovation and Value Initiative at the Brookings Institution. Within Brookings, his work focuses on promoting quality and value in patient centered health care. A doctor and economist by training, he also has a highly distinguished record in public service and in academic research. Dr. McClellan is a former administrator of the Centers for Medicare & Medicaid Services (CMS) and former commissioner of the U.S. Food and Drug Administration (FDA), where he developed and implemented major reforms in health policy. These include the Medicare prescription drug benefit, the FDA's Critical Path Initiative, and public-private initiatives to develop better information on the quality and cost of care. Dr. McClellan chairs the FDA's Reagan-Udall Foundation, is co-chair of the Quality Alliance Steering Committee, sits on the National Quality Forum's Board of Directors, is a member of the Institute of Medicine, and is a research associate at the National Bureau of Economic Research. He previously served as a member of the President's Council of Economic Advisers and senior director for health care policy at the White House, and was an associate professor of economics and medicine at Stanford University.

Bernard Munos, MBA, is the founder of InnoThink, a consultancy that focuses on pharmaceutical innovation - specifically, where it comes from and how to get more of it. He previously served as an advisor for corporate strategy at Eli Lilly, where he focused on disruptive innovation and the radical redesign of R&D. His research has been published in Nature and Science, and profiled by Forbes magazine. The popular industry newsletter FiercePharma named him one of the 25 most influential people in biopharma. He is a member of the Advisory Council of NIH's National Center for Advancing Translational Sciences (NCATS); a member of the Institute of Medicine's Forum on Drug Discovery Development and Translation; a member of the Advisory Board of the journal Science Translational Medicine; a Senior Fellow at FasterCures (a center of the Milken Institute); and a non-executive director of Glenmark Pharmaceuticals. He also advises numerous companies and nonprofit biomedical research organizations on how to become better innovators. He received his MBA from Stanford University, and holds other

graduate degrees in animal science and agricultural economics from the Paris Institute of Technology for Life, Food and Environmental Sciences and the University of California, Davis.

Jeffrey M. Trent, PhD, FACMG, is President and Research Director of the Translational Genomics Research Institute (TGen) in Phoenix, Arizona. TGen's main goal as a non-profit medical research institute is focused on applying advances from the Human Genome Project to discover the molecular basis of disease, identifying factors contributing to disease progression and severity, and accelerating new drug development to advance clinical treatments for patients. TGen's research focuses on a variety of diseases, including Alzheimer's, autism, diabetes and multiple subtypes of cancer. TGen also engages in bio-defense research involving deadly pathogens, and has developed (under TGen's world-recognized Physician-in-Chief, Dr. Daniel Von Hoff) a clinical research service in oncology, which annually touches the lives of hundreds of patients with cancer. Prior to forming TGen in 2002, Dr. Trent served for 10 years as the Scientific Director of the National Human Genome Research Institute at the National Institutes of Health in Bethesda, Maryland. Under his guidance, NHGRI's Division of Intramural Research became an internationally recognized research center in human genetics. Dr. Trent's research has provided important insights into the genetic basis of cancer. He is the author of more than 300 manuscripts in the scientific literature, numerous book chapters, invited reviews, and has given hundreds of invited lectures. He has received numerous honors and awards, and has sat on the editorial boards of a dozen scientific publications. He specializes in developing and integrating novel "omic" technologies, supporting studies of molecular changes related to cancer risk and progression. He continues to participate in studies of other complex diseases in humans, as well as co-leading TGen's in canine hereditary programs. Dr. Trent's faculty positions include: The University of Arizona, where he was Deputy Director and Director for Basic Science of the Arizona Comprehensive Cancer Center; the University of Michigan, where he held the E. Maisel Endowed Professorship in Cancer Genetics, Professor of Human Genetics and Radiation Oncology, and Deputy Director and Director of Basic Research for the Michigan Comprehensive Cancer Center; and he continues as an Adjunct Professor at Johns Hopkins University and at Arizona State University. He also is a Diplomat of the American College of Medical Genetics. And he is a Member of: the Mayo Clinic Comprehensive Cancer Center; the American Association for Cancer Research; the American Association for the Advancement of Science; the American Society of Human Genetics; and the American Society of Clinical Oncology.

Janet Woodcock, MD, is the director of the Center for Drug Evaluation and Research (CDER) at the U.S. Food and Drug Administration (FDA). Dr. Woodcock held various leadership positions within the FDA's commissioner's office, including deputy commissioner and chief medical officer, deputy commissioner for operations, and chief operating officer and director, Critical Path Programs. Previously, Dr. Woodcock served as director of CDER from 1994-2005. She also held other positions at FDA including director, Office of Therapeutics Research and Review and acting deputy director, Center for Biologics Evaluation and Research. A prominent FDA scientist and executive, Dr. Woodcock has received numerous awards, including a Presidential Rank Meritorious Executive Award, the American Medical Association's Nathan Davis Award, and Special Citations from FDA Commissioners. Dr. Woodcock received her MD from Northwestern Medical School, completed further training, and held teaching appointments at the Pennsylvania State University and the University of California in San Francisco. She joined FDA in 1986.