

8TH ANNUAL
PERSONALIZED MEDICINE
CONFERENCE PROGRAM



NOVEMBER 28-29, 2012

JOSEPH B. MARTIN CONFERENCE CENTER
AT HARVARD MEDICAL SCHOOL, BOSTON



CENTER FOR PERSONALIZED
GENETIC MEDICINE



HARVARD
BUSINESS
SCHOOL

HIGHLIGHTS OF PAST CONFERENCES



November 28, 2012

Dear Colleague,

Welcome to the 2012 Personalized Medicine Conference. We and the other members of the Conference Organizing Committee, whose names you will see on the last page of this program, are pleased to offer this eighth annual gathering co-hosted by Partners HealthCare, Harvard Medical School and Harvard Business School. We offer our profound thanks to the speakers, panelists, our generous Conference Supporters and the staff for all that they do to make this meeting meaningful and worthwhile.

The Personalized Medicine Coalition (PMC) has been actively involved in this Conference since its inception in 2005 and that relationship continues to play a key role in our annual meeting. The PMC's perspectives and depth of understanding of the issues surrounding personalized medicine have added greatly to the considerations about the conference program and content. It is especially pleasing that the PMC has chosen this venue to present its annual Award for Leadership in Personalized Medicine that this year will be received by Randall Johnson.

The goal of medicine is to maintain health, prevent disease and to provide the most effective treatment for all patients. Our Conference started with the belief that Personalized Medicine is a way to accomplish all of these goals. Extraordinary progress is being made in genetic and genomic understanding about health and disease, about the advances that have led to dramatically lower costs of sequencing and other technologies, about the commitment of pharmaceutical companies to using the principles of personalized medicine in drug development, about the evermore sophisticated capabilities of molecular diagnostics and about the increasing implementation of advanced IT applications in integrating genetic and genomic information into the clinical decision making of providers. Much remains to be done, however. The purpose of this annual Personalized Medicine Conference, as it always has been, is to continue to bring together the best minds across a broad spectrum of stakeholders to consider the opportunities and challenges, and to understand what the next steps should be, to reach the fullest implementation of personalized medicine.

We hope you will find this meeting engaging and stimulating and that you will offer your own wisdom and perspective to the conversations. It should be an opportunity for you to renew friendships, expand acquaintances and meet new people whose knowledge will enhance your own understanding of personalized medicine. Welcome, again, to what we trust you will find a productive and enjoyable meeting.

Sincerely,



Scott T. Weiss
Scott T. Weiss, M.D., M.S.
 Scientific Director
 Partners HealthCare Center for
 Personalized Genetic Medicine
 Professor of Medicine,
 Harvard Medical School



Raju Kucherlapati
Raju Kucherlapati, Ph.D.
 Paul C. Cabot Professor of Genetics and
 Professor of Medicine, Harvard Medical School;
 Chair, Conference Organizing Committee

A THANK YOU TO OUR SUPPORTERS

This conference is organized by the Partners HealthCare Center for Personalized Genetic Medicine and Harvard Business School in collaboration with the Personalized Medicine Coalition. It is made possible by the generous support of our supporters.

SIGNATURE



GOLD



SILVER



BRONZE



LEERINK SWANN



Empowering Healthcare

INTRODUCTION

SUPPORTERS

PROGRAM

SPEAKERS

ABOUT US

ORGANIZING COMMITTEE

CONTRIBUTING

We want you to know[®]



MOLECULARHEALTH
Because Precision Matters



PROGRAM *Wednesday, November 28, 2012*

- 8:00 a.m. Welcome**
- Raju Kucherlapati, Ph.D.**
Paul C. Cabot Professor of Genetics, Professor of Medicine, Harvard Medical School
- Scott Weiss, M.D., M.S.**
Scientific Director, Partners HealthCare Center for Personalized Genetic Medicine; Associate Director, Channing Laboratory; Professor of Medicine, Harvard Medical School
- Jeffrey Flier, M.D.**
Dean, Harvard Medical School
- Introducer: **Jeffrey Leerink**
Chair and CEO, Leerink Swann LLC
- 8:30 a.m. Impact of Genomic Sequencing on Health**
- Human genome sequencing promises to be an important tool in assessing risk, diagnosing disease and stratifying patient populations for targeted therapy. The panelists will describe some personal experiences of receiving sequence information and talk about how this rapidly growing technology is transforming medical practice.
- Moderator: **Stephen Eck, M.D., Ph.D.**
Vice President, Global Head of Medical Oncology Sciences, Astellas Pharma Global Development, Inc.
- Joe Beery**
Senior Vice President & Chief Information Officer, Life Technologies
- John Lauerman**
Reporter-at-Large, Bloomberg News
- D. Holmes Morton, M.D.**
Clinic Director, The Clinic for Special Children
- Michael Snyder, Ph.D.**
Stanford Ascherman Professor and Chair of Genetics; Director, Center of Genomics and Personalized Medicine, Stanford University School of Medicine
- 9:45 a.m. Perspectives From Professional Organizations**
- Speakers To Be Announced
- 10:15 a.m. Networking Break**
- 11:00 a.m. Genetic Basis for Drug Development**
- Many drug developers are beginning to successfully use genetic information and genetic markers in drug development. This panel will provide perspectives from three different companies on how they have used and are using genetic information in successful drug development.
- Moderator: **Hakan Sakul, Ph.D.**
Executive Director, Head of Diagnostics, Worldwide R&D, Clinical Research and Precision Medicine, Pfizer, Inc.
- Jeffrey Leiden, M.D., Ph.D.**
President, CEO and Chairman
Vertex Pharmaceuticals
- Michael Streit, M.D., M.B.A.**
Executive Director, GlaxoSmithKline-Oncology
- George D. Yancopoulos, M.D., Ph.D.,**
President, Research Laboratories and Chief Scientific Officer, Regeneron Pharmaceuticals

| | | |
|---------------|--|--|
| 12:00 NOON | Presentation of Personalized Medicine Coalition's 8th Annual Award for Leadership in Personalized Medicine | Award Recipient: Randall Scott, Ph. D. Founder and Director, Genomic Health, CEO, InVita Corp. Introducer: Edward Abrahams, Ph.D. President, Personalized Medicine Coalition Presenter: D. Stafford O'Kelley Chairman of the Board, Personalized Medicine Coalition |
| 12:30 p.m. | Networking Luncheon | Open Seating |
| 1:45 p.m. | Business Models for Use of Genetic Information The discussion should highlight new business opportunities for large companies, such as the three represented on the panel, and for small businesses in the services and IT sectors. | Ger Brophy, Ph.D. General Manager, New Product Development Medical Diagnostics GE Healthcare Kris Joshi, Ph.D. Global Vice President, Healthcare Strategy, Oracle Trevor Hawkins, Ph.D. Chief Strategy Officer, Siemens Healthcare Diagnostics E. Kevin Hrusovsky President of Life Sciences & Technology, PerkinElmer |
| 2:45 p.m. | Conversation: Genetics and the Law There are conflicting views regarding Intellectual Property for genetic tests. The panel will offer opposing views on prominent recent litigation and consider how investors see the impact of the legal decisions. | Moderator: Robert Tepper, M.D. Partner, Third Rock Ventures Laura Coruzzi, Ph.D., J.D. Partner, Jones Day David Resnick, Esq. Partner, Co-Leader Patents, Nixon Peabody Risa Stack, Ph.D. Partner, Kleiner Perkins Caufield & Byers |
| 3:45 p.m. | Break | |
| 4:15 p.m. | International Commitments to Personalized Medicine Many countries are considering and developing plans to implement the principles of personalized medicine. Are there lessons from these efforts that the U.S. can learn from? How can we make personalized medicine a world-wide effort? | Moderator: Jeffrey Elton, Ph.D. Managing Director, Accenture Professor Abraham Israeli, M.D., M.P.H., M.B.A. Chief Scientist of the Ministry of Health, Head, Department of Health Policy, Health Care Management and Health Economics, Hebrew University – Hadassah Faculty of Medicine; Professor, Hebrew University – Hadassah School of Public Health, Jerusalem, Israel Michael Hayden, M.D., Ph.D. Director and Senior Scientist, Center for Molecular Medicine and Therapeutics (CMMT), University of British Columbia, Vancouver, Canada Ola Myklebost, Ph.D. Senior Scientist and Group Leader, Department of Tumor Biology, Institute for Cancer Research, Oslo University Hospital, Norway Ming Qi, Ph.D. Professor, Zhejiang University School of Medicine, China |
| 5:15 p.m. | Reception | Elements Café |

INTRODUCTION

SUPPORTERS

PROGRAM

SPEAKERS

ABOUT US

ORGANIZING COMMITTEE

PROGRAM *Thursday, November 29, 2012*

- 8:30 a.m. Keynote**
- William Hait, M.D., Ph.D.**
Global Head of Janssen R&D, Johnson & Johnson
- Introducer: **John Niederhuber, M.D.**
Professor of Oncology & Surgery, Johns Hopkins University School of Medicine; Former Director of the National Cancer Institute; Executive Vice President, Inova Health System; CEO, Inova Translational Medicine Institute
- 9:00 a.m. Genetics in Medical Practice**
- Each institution represented in this panel is making efforts to bring personalized medicine to their patients. What are the different approaches that are being used? How are they evolving? What kinds of investments are necessary to build these enterprises? How do these efforts inform us about the progress of personalized medicine?
- Moderator: **M. Kathleen Behrens Wilsey, Ph.D.**
President & CEO, KEW Group
- Joe Vockley, Ph.D.**
Chief Operating Officer, Chief Scientific Officer
Inova Translational Medicine Institute
- A. John Iafrate, M.D., Ph.D.**
Associate Chief of Pathology, Massachusetts General Hospital, Center for Integrated Diagnostics
- Mia Levy, M.D., Ph.D.**
Assistant Professor of Biomedical Informatics, Assistant Professor of Medicine, Cancer Clinical Informatics Officer, Vanderbilt Ingram Cancer Center
- 10:00 a.m. Networking Break**
- 10:30 a.m. Molecular Diagnostics and Public Policy**
- Will bringing molecular diagnostics into routine practice require bringing together many interest groups and educating and informing regulatory and legislative bodies about the importance of personalized medicine and the need for policy change? What changes are needed? How and by whom the views can best be presented to policy makers and legislators?
- Moderator: **Amy Miller, Ph.D.**
Vice President, Public Policy, Personalized Medicine Coalition
- Alan Mertz**
President, American Clinical Laboratory Association
- Richard Naples**
Sr. Vice President, Regulatory Affairs, BD Biosciences
- Paul Radensky, M.D.**
Partner, McDermott Will & Emery
- 11:30 a.m. Ethical Aspects of Whole Genome Sequencing**
- Lisa Lee, Ph.D., M.S.**
Executive Director, Presidential Commission for the Study of Bioethical Issues
- Robert Green, M.D., M.P.H.**
Associate Professor of Medicine, Division of Genetics, Brigham and Women's Hospital and Harvard Medical School; Associate Director for Research, Partners HealthCare Center for Personalized Genetic Medicine

| | | |
|------------|---|--|
| 12:00 p.m. | Bag Lunch | Open Seating |
| 1:00 p.m. | <p>Decision Making in the Development of Zelboraf</p> <p>Roche and Plexxicon collaborated in developing a targeted therapy for a subset of melanoma patients. How did the two companies decide to collaborate? What were the mechanics of the collaboration? How did the submission of a NDA with a companion diagnostic come about? What lessons can be drawn from this experience?</p> | <p>K. Peter Hirth, Ph.D. CEO, Plexxikon</p> <p>Suzanne Cheng, Ph.D. Director, Genomics and Oncology Research, Roche Molecular Systems</p> <p>Raju Kucherlapati, Ph.D. Paul C. Cabot Professor of Genetics, Professor of Medicine, Harvard Medical School</p> |
| 1:45 p.m. | Keynote | <p>Lt. Col. Cecili K. Sessions, M.D., M.P.H., FAAP Chief, AFMS Personalized Medicine, Air Force Medical Support Agency (AFMSA) Medical Research & Innovations (SG5I)</p> <p>Introducer: Heidi Rehm, Ph.D., FACMG Director, Laboratory for Molecular Medicine, Partners HealthCare Center for Personalized Genetic Medicine; Assistant Professor of Pathology, Harvard Medical School</p> |
| 2:15 p.m. | Industry Study on Interpretation | Anthony Flynn Chief Marketing Officer, Director of Healthcare Strategy & Commercialization, GenomeQuest |
| 2:20 p.m. | <p>Interactive Case Study on Business Strategies for Personalized Medicine</p> <p>Case: <i>Companion Diagnostics: Uncertainties for Approval and Reimbursement</i></p> | <p>Richard Hamermesh, D.B.A. MBA Class of 1961 Professor of Management Practice, Faculty Chair, HBS Healthcare Initiative Harvard Business School</p> <p>Norman Selby Executive Chairman, Physicians Interactive, Inc. and Real Endpoints llc</p> |
| 3:35 p.m. | Closing Remarks | Raju Kucherlapati, Ph.D. Paul C. Cabot Professor of Genetics, Professor of Medicine, Harvard Medical School |

INTRODUCTION

SUPPORTERS

PROGRAM

SPEAKERS

ABOUT US

ORGANIZING COMMITTEE

SPEAKERS



Joe Beery

is Chief Information Officer for Life Technologies and served the same role at Invitrogen since September 2008. Prior to Invitrogen, Mr. Beery held the executive position of Chief Information Officer at US Airways and America West Airlines. Previously, Mr. Beery spent ten years at Motorola Semiconductor, holding various positions in the computer integrated manufacturing group. Mr. Beery also served as a manufacturing and software engineer at NV Phillips in Albuquerque, NM. Mr. Beery holds a B.S. in business administration and business computer systems from the University of New Mexico.

Ger Brophy, Ph.D.

is General Manager, New Product Development at GE Healthcare Medical Diagnostics. In this role, Ger is responsible for the overarching R&D strategy encompassing in vivo and in vitro diagnostic technologies, with oversight of discovery (research) and clinical development; regulatory and medical affairs; project and portfolio management; product acquisition and licensing; R&D efficiency projects and collaborations across GE.

Previously, Ger led Strategic Planning & Licensing within Medical Diagnostics business. He was centrally involved in the expansion of the business into the Personalized Medicine space through inorganic and organic investments in in vitro diagnostics and pathology.

Ger joined GE Healthcare through the acquisition of Amersham in 2004. Before joining the Medical Diagnostics business, Ger ran the Life Sciences Advanced Systems business in Sweden. The focus on that business was in the commercialization of improved tools for drug discovery. In that capacity he led an R&D group of 200 researchers developing new products and services used in academia and Pharma to better understand disease.

Ger began his career in R&D developing high throughput drug screening tools. He advanced to become Development Director for Amersham's Bioassay's business unit, leading a group of 60 people. Within GE Healthcare he has held positions in Licensing, Business Development and R&D.

Ger has had international assignments in the UK, Sweden and in Chicago & New Jersey. He relocated to New Jersey in August 2009.

Ger holds a Ph.D. in Molecular Biology.

Suzanne Cheng, Ph.D.

is currently a Director in the Genomics and Oncology Research Department at Roche Molecular Systems, overseeing several assay teams that support the early development of companion diagnostic assays in oncology. She was the IVD Lead for vemurafenib, a targeted therapy for treatment of patients with BRAF V600E mutation-positive metastatic or inoperable melanoma that was approved in 2011 together with a companion diagnostic, the cobas® 4800 BRAF V600 Mutation Test. She has experienced first-hand the challenges of drug and diagnostic co-development from early development through to successful FDA approvals.

Prior to joining Genomics and Oncology, Dr. Cheng was a member of the Human Genetics Department, contributing to the development of long PCR technology and the evaluation of genetic predisposition markers for the development and progression of cardiovascular disease. She received her degree from the University of California, Berkeley.



Laura Coruzzi, Ph.D.

has represented clients in biotechnology and pharmaceuticals for close to 30 years. Prior to joining Jones Day, she practiced at Pennie & Edmonds LLP and was one of the first members of that firm's biotechnology group founded by S. Leslie Misrock, affectionately known as the "father of biotechnology patent law." Laura's practice has evolved with the patent laws and matured with the needs of the biotechnology and pharmaceutical industries. Her practice involves all aspects of patent law as it relates to a variety of disciplines in the life sciences, including genetic engineering, molecular biology, virology, vaccines, immunology, therapeutic antibodies, biologic and small molecule therapeutics, diagnostics, drug discovery, and drug delivery.

Laura's patent procurement practice focuses on strategic planning and management of patent portfolios designed to protect emerging new technologies as well as mature biologic and pharmaceutical therapeutics and diagnostics. She counsels clients on portfolio evaluation, due diligence investigations, patent prosecution and interferences, European oppositions, and licensing. Laura's practice also encompasses patent litigation and appeals before the USPTO Board of Appeals and the Federal Circuit. She is a member of the Jones Day team representing Myriad in *Association for Molecular Pathology v. Myriad Genetics* (2011) upholding the patent-eligibility of isolated human genes. Prior to joining Jones Day, she and her team won reversal of an \$18 million jury verdict in 2000 for Cadus Pharmaceutical Corporation in a case involving cell-based assays for drug screening.

Laura is frequently invited to speak at symposia on patent law issues related to life sciences.



Stephen L. Eck, M.D., Ph.D.

is Vice President and Global Head of Oncology Medical Sciences at Astellas Pharma Global Development (Headquartered in Northbrook, IL). He is directly responsible for the oversight of oncology drug development plans. Much of this work is focused on special cancer populations for which unique biology enables the development of personalized cancer therapies. Dr. Eck previously served as Vice President, Translational Medicine & Pharmacogenomics at Eli Lilly and Company (2007-2011) where he was responsible for the clinical pharmacology components of drug development including both early phase clinical studies and late stage drug development studies. His group also developed the biomarkers and companion diagnostics needed for effective decision-making and for tailoring therapeutics to the right patient population. An essential part of this work was conducted in the Diagnostic and Experimental Medicine Group and the Laboratory for Experimental Medicine. Prior to joining Lilly, Dr. Eck served in a variety of drug development leadership roles at Pfizer, Inc (2002-2007).

Dr. Eck is a board certified Hematologist/Oncologist with broad drug development experience in Oncology and Neuroscience. He is a Fellow of the American Association for the Advancement of Science. He serves on the Scientific Advisory Board of the ACGT Foundation, which supports academic cancer research, and is a member of the Scientific Advisory Committee of the Fairbanks Institute, an institution dedicated to developing data banks to enable personalized medicine. He also serves on the Advisory Board of the Keck Graduate School (Claremont, CA), and is a Board member of the Personalized Medicine Coalition.

SPEAKERS



Jeff Elton, Ph.D.

is Managing Director in Life Sciences in Accenture. Jeff has over 20 years of experience as a global executive and consultant in the biopharmaceutical and healthcare sectors. Jeff serves clients in pharmaceutical, biopharmaceutical, and health provider sectors. Jeff also co-leads Accenture's pilot initiative in the application of health data analytics to pharmaceutical managed markets, commercial, and clinical development analytics.

Recently, Jeff was founding CEO of a Personalized Oncology Company, and Board member and senior advisor to four early stage companies in protein therapeutics, diabetes, oncology therapeutics, and oncology diagnostics.

From 2004 through 2009, Jeff served as Senior Vice President of Strategy and Global Chief Operating Officer at Novartis Institutes of BioMedical Research, Inc. (NIBR) in Cambridge, MA. He led the definition of therapeutic area strategies, formed strategic partnerships, and oversaw global operations in the US, Europe, and Asia.

Prior to Novartis, Jeff was a senior partner with McKinsey & Company for pharmaceutical & medical products practice where he focused on healthcare delivery strategies, new product launches, global commercial management structures, and R&D performance.

Jeff is currently a board member of the Massachusetts Biotechnology Council, a board and executive committee member of the Elizabeth Glaser Pediatric AIDS Foundation, and faculty member of the Boston University School of Management, Health Management Program.



Jeffrey S. Flier, M.D.

is one of the country's leading investigators in the areas of obesity and diabetes. His research has produced major insights into the molecular mechanism of insulin action, the molecular mechanisms of insulin resistance in human disease, and the molecular pathophysiology of obesity.

Flier was born in New York City. He received a BS from City College of New York in 1968, and an MD from Mount Sinai School of Medicine in 1972, graduating with the Elster Award for Highest Academic Standing. Following residency training in internal medicine at Mount Sinai Hospital from 1972 to 1974, Flier moved to the National Institutes of Health as a Clinical Associate. In 1978, he joined the Faculty of Medicine at Harvard Medical School, serving as Chief of the Diabetes Unit at Beth Israel Hospital until 1990, when he was named chief of the hospital's Endocrine Division.

In 2002, Flier was named Chief Academic Officer of BIDMC, a newly created senior position responsible for research and academic programs. He worked with Beth Israel Deaconess academic department chairs to ensure the quality and breadth of academic programs at the Medical Center, through which most Harvard Medical School students pass. He also served as the formal liaison to Harvard Medical School, sitting on the Council of Academic Deans.

Flier has authored over 200 scholarly papers and reviews and has held many editorial positions. An elected member of the Institute of Medicine and a fellow of the American Academy of Arts and Sciences, Flier's honors also include the Eli Lilly Award of the American Diabetes Association, the Berson Lecture of the American Physiological Society, and Honorary Doctorates from the University of Athens and the University of Edinburgh. He was the recipient of the 2003 Edwin B. Astwood Lecture Award from the Endocrine Society, and In 2005, he received the Banting Medal from the American Diabetes Association, its highest scientific honor.

Flier, the father of two daughters, lives in Newton, MA with his wife Eleftheria Maratos-Flier, MD, who is a Professor of Medicine at Harvard Medical School and with whom he has collaborated on research in the area of neuroendocrine control of body weight.



Robert C. Green, M.D., M.P.H.

is a medical geneticist and a clinical researcher who directs the G2P research program (genomes2people.org) in translational genomics and health outcomes in the Division of Genetics at Brigham and Women's Hospital and Harvard Medical School.

Dr. Green is principal investigator of the NIH-funded REVEAL Study, in which a cross-disciplinary team has conducted 4 separate multi-center randomized clinical trials collectively enrolling 1100 individuals to disclose a genetic risk factor for Alzheimer's disease in order to explore emerging themes in translational genomics. Dr. Green also co-directs the NIH-funded PGen Study, the first prospective study of direct-to-consumer genetic testing services and leads the MedSeq Project, the first NIH-funded research study to explore the use of whole genome sequencing in the clinical practice of medicine.

Dr. Green is currently Associate Director for Research of the Partners Center for Personalized Genetic Medicine, a Board Member of the Council for Responsible Genetics and a member of the Informed Cohort Oversight Boards for both the Children's Hospital Boston Gene Partnership Program and the Coriell Personalized Medicine Collaborative. He co-chairs the ACMG working group that is currently developing recommendations for management of incidental findings in clinical sequencing.



William N. Hait, M.D., Ph.D.

is Global Head, Janssen Research & Development, LLC, the global research and development arm of Janssen, the pharmaceutical companies of Johnson & Johnson. In this role, he leads the global R&D group in its mission to discover and develop innovative new medicines to address the world's most serious unmet medical needs.

Dr. Hait joined Johnson & Johnson in 2007 as Senior Vice President, Worldwide Head of Hematology and Oncology, Ortho Biotech Oncology R&D, and assumed the role of Global TA Head, Oncology, in 2009.

Prior to joining Johnson & Johnson, he was the founding Director of The Cancer Institute of New Jersey and Professor of Medicine and Pharmacology and Associate Dean for Oncology Programs at the University of Medicine and Dentistry of New Jersey-Robert Wood Johnson Medical School from January 1993 to March 2007. Under Dr. Hait's leadership, The Cancer Institute of New Jersey was successful in obtaining cancer center designation from the National Cancer Institute in 1996 and received the National Cancer Institute's highest designation of Comprehensive Cancer Center in 2002.

After earning his B.A. from the University of Pennsylvania, Dr. Hait received his M.D. and Ph.D. (Pharmacology) cum laude from the Medical College of Pennsylvania, where he was elected to Alpha Omega Alpha. He joined the Yale University School of Medicine faculty in 1984 and was quickly promoted to Associate Professor of Medicine and Pharmacology. Dr. Hait served as Associate Director of the Yale University Comprehensive Cancer Center and Director of the Breast Cancer Unit and Co-Director of the Lung Cancer Unit at the Yale University School of Medicine. He was appointed Chief of Medical Oncology at the Yale University School of Medicine in 1988. Dr. Hait is Board Certified in Internal Medicine and Medical Oncology.

Dr. Hait is a member of the Medical Advisory Board of both the New Jersey Breast Cancer Coalition and Susan G. Komen Foundation and is an active member on Scientific Advisory Boards of several universities. He served on various committees for the American Association for Cancer Research (Chair, Clinical Cancer Research Committee), American Society of Clinical Oncology, the Association of American Cancer Institutes (Board of Directors), and the National Cancer Institute Board of Scientific Advisors. Dr. Hait served as President of the American Association for Cancer Research from 2007 – 2008, and is currently serving as treasurer.

SPEAKERS



Richard Hamermesh, D.B.A.

is the MBA Class of 1961 Professor of Management Practice at the Harvard Business School where he teaches in the MBA Program and is the Faculty Chair of the HBS Healthcare Initiative. Richard created and teaches the second-year MBA elective, Entrepreneurship and Venture Capital in Healthcare. Previously, he was the Course Head for the required first year course entitled The Entrepreneurial Manager. In addition Richard participates in several HBS Executive Education programs.

From 1987 to 2001, Richard was a co-founder and a Managing Partner of The Center for Executive Development, an executive education and development consulting firm. Prior to this, from 1976 to 1987, he was a member of the faculty of the Harvard Business School.

Richard is also an active investor and entrepreneur, having participated as a principal, director, and investor in the founding and early stages of over 20 organizations. These have included start-ups, leveraged buy-outs, industry roll-ups, and non-profit foundations. He was the founding president of the Newton (MA) Schools Foundation and served on the editorial board of the Harvard Business Review. He is currently on the Boards of one public and two private corporations, as well as two non-profit Boards. From 1991 to 1996, he was the founding Chairman of Synthes Spine, Inc.

Richard is the author or co-author of five books, including *New Business Ventures* and *the Entrepreneur*. His best-known book, *Fad-Free Management*, was published in 1996. He has published numerous articles and more than 100 case studies. His most recent article, "Realizing the Potential of Personalized Medicine," appeared in the Harvard Business Review (October 2007). Richard received his AB from the University of California, and his MBA and DBA from HBS. He is married, has two children, and his hobbies include tennis, skiing, and yoga.



Trevor Hawkins, Ph.D.

is the past Director of the Human Genome Project for the US DOE. Dr. Hawkins has built a recognized career in the healthcare industry over the past 20 years spanning business, academic innovation and as an entrepreneur.

Dr. Hawkins is the Senior Vice President of Strategy and Innovation for Siemens Healthcare Diagnostics.

Prior to joining Siemens he has held several senior executive roles, as Chief Scientific Officer of Royal Philips Electronics focusing on healthcare, CEO of Philips Molecular Healthcare business unit, CEO of GEs Molecular diagnostics business and President of Amershams Genomics business. He was also Chairman & CEO of ProGenTech, a privately held company based in Shanghai & San Francisco.

Dr. Hawkins invented SPRI, Solid Phase Reversible Immobilization the magnetic bead nucleic acid isolation method that was used extensively as the sample prep method for the Human Genome Project. The SPRI patent remains as one of the most important in the field of magnetic bead use for life sciences and diagnostics.

Dr. Hawkins has published over 50 peer-reviewed articles on automation, genomics, human diseases and the human genome project. He was also a founder of the Beijing Genome Institute (BGI), China's genome program and remains an Honorary Professor of the BGI.

Dr. Hawkins has served on several public and private Boards and is currently involved in non-profit organizations in California.



Michael Hayden, M.D., Ph.D.

is the Killam Professor of Medical Genetics at the UBC and Canada Research Chair in Human Genetics and Molecular Medicine. He is the Director of the Center for Molecular Medicine and Therapeutics (CMMT) and founder of three biotechnology companies: NeuroVir Therapeutics Inc., Xenon Pharmaceuticals Inc., and Aspreva Pharmaceuticals Corp.

Author of over 700 peer-reviewed publications and invited submissions, Michael focuses his research primarily on genetic diseases, including genetics of lipoprotein disorders, Huntington disease, predictive and personalized medicine. Michael and his research group have identified 10 disease-causing genes which includes the identification of the major gene underlying high-density lipoprotein (HDL) in humans.

Michael also identified the first mutations underlying Lipoprotein Lipase (LPL) Deficiency and developed gene therapy approaches to treat this condition. Michael is also the most cited author in the world for ABCA1 and Huntington Disease.

Michael is the recipient of numerous recent prestigious honours and awards, including the Margolese National Brain Disorder Prize (2011), awarded to Canadians who have made outstanding contributions to the treatment, amelioration, or cure of brain diseases; the Killam Prize by the Canada Council of the Arts (2011), in recognition of his outstanding career achievements; and the Canada Gairdner Wightman award (2011), recognizing him as a physician-scientist who has demonstrated outstanding leadership in medicine and medical science. Michael has also been awarded the Order of Canada (2011), and the Order of British Columbia (2010). He was named Canada's Health Researcher of the Year by CIHR in 2008, and he received the Prix Galien in 2007, which recognizes the outstanding contribution of a researcher to Canadian pharmaceutical research.



K. Peter Hirth, Ph.D.

co-founded Plexxikon in December 2000, and has over 25 years of biotechnology and pharmaceutical discovery and development experience. Plexxikon was built as a novel, structure-guided drug discovery platform. Over the last ten years, Plexxikon has brought several NCEs into the clinic in a variety of indications. Most advanced from this portfolio is a selective B-raf V600 inhibitor that has been approved by the FDA for the treatment of patients with BRAFV600E mutation-positive inoperable or metastatic melanoma, as detected by an FDA-approved test, and is sold under the brand name Zelboraf®. Plexxikon was acquired in April 2011 by Daiichi Sankyo and is now a member of the Daiichi Sankyo Group.

Previously, Peter was president of Sugem, Inc. until the sale of the company to Pharmacia Corporation in 1999. At Sugem, he helped build the company from its inception and advanced several kinase inhibitors through clinical trials for the treatment of oncology. This includes the drug Sutent, now owned by Pfizer through its acquisition of Pharmacia. Prior to Sugem, Dr. Hirth was a vice president in research with Boehringer Mannheim where, among other responsibilities, he successfully led the company's erythropoietin program. Previously, he also was a research scientist with the Max Planck Institute, following the completion of his post doctoral work at the University of California, San Diego. Dr. Hirth received his Ph.D. in molecular genetics from Heidelberg University, Germany.



E. Kevin Hrusovsky

was appointed President, Life Sciences & Technology, PerkinElmer in November 2011 when Caliper Life Sciences (CALP) was acquired. This transaction was the culmination of significant value creation for the CALP stakeholders. In July 2003, Hrusovsky became CEO of Caliper Life Sciences, when Zymark Corporation was acquired by Caliper. Subsequently, Caliper acquired and integrated three additional innovative tools companies and made substantial R&D and commercialization investments. Through these actions, Hrusovsky and Team transformed Caliper into a leading edge personalized medicine / health technology company. The Company's rapid growth in sales and market valuation over the past three years made Caliper one of the fastest growing innovative life science technology companies in the industry, and a credible resource for articulating these important trends in medicine and health. Prior to the acquisition, Hrusovsky served as President and CEO for Zymark starting in late 1996, where he successfully transformed Zymark from a custom robotics company into a formidable Life Sciences tools company. From 1992 to 1996, he was Director of International Business, Agricultural Chemical Division, and President of the Pharmaceutical Division, for FMC Corporation. From 1983 to 1992, he held several management positions at E.I. DuPont de Nemours, including North American Sales and Marketing Head, Teflon.

Hrusovsky currently sits on the Educational Board of the Massachusetts Biotech Council, the Advisory Committee for the Center for Biomedical Engineering at Brown University, the Association for Laboratory Automation, the JALA Editorial Board, and the Strategy Committee of Children's Hospital Boston. He formerly served on the boards of SeraCare Life Sciences, Caliper Life Sciences, Xenogen Corporation and Alliant Medical Technology. Hrusovsky received an Honorary Doctorate degree from Framingham State University for contributions to life sciences. He received his B.S. in Mechanical Engineering from Ohio State University and an M.B.A. from Ohio University. He and his family are authentic Buckeyes!

SPEAKERS



Professor Abraham Israeli, M.D., M.P.H., M.B.A.

is Chief Scientist of the Ministry of Health, and the Head of the Health Policy, Health Care Management and Health Economics Department at the Hebrew University – Hadassah Faculty of Medicine. Prior to this he was the Director General of the Israel Ministry of Health (2003-2009) and the Director – General of Hadassah Medical Organization (1998 -2001).

He holds the Chair of Dr. Julien Rozan Professorship of Family Medicine and Health Promotion Chair at the Hebrew University-Hadassah Medical School, Jerusalem (since 1996) and teaches there regularly.

Professor Israeli chaired the national committee to update the Israeli national standard basket of health services.

Professor Israeli received his medical degree and his master in public health from the Hadassah – Hebrew University Medical School. He completed residencies in Internal Medicine and in Health-Care Management at Hadassah University Hospital and has certification in both specialties. He received his Master’s Degree from the Sloan School of Management at MIT, Boston.

His scientific activities are related to applied, methodological and theoretical research in the fields of health policy, health care management, and the epidemiological, economic, social and cultural basis for decision-making.

His publications deal with translation of academic knowledge and inputs from the field into policy setting and decision-making processes.

Two additional key research foci are rationing / priority setting and comparative health care systems.



Kris Joshi, Ph.D.

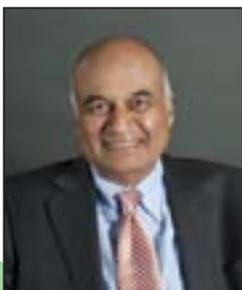
is Global Vice President responsible for Oracle’s Healthcare product portfolio. Kris helped launch the Health Sciences Global Business Unit within Oracle, and led the business unit’s growth strategy, including the acquisitions of Relsys and Phase Forward. He oversees a product portfolio that covers Analytics, Health Information Exchange, Care Management, and solutions for Personalized Medicine and Translational Research serving healthcare payer, provider and life sciences segments.

Prior to Oracle, Kris served in senior strategy roles in IBM’s Global Sales & Distribution organization where he helped shape IBM’s global distribution strategy and emerging markets strategy. Prior to IBM, Kris spent several years as a consultant with McKinsey and Co where he served Fortune 500 clients in

Banking, Media, Healthcare and Life Sciences industries on business strategy issues.

Kris has a long-standing personal commitment to help bridge the gap between the social and business worlds through entrepreneurship, innovation, and public-private partnerships. He has championed numerous initiatives aimed at leveraging technology to improve the quality, safety, and affordability of healthcare globally.

Kris holds a Bachelor of Science in Mathematics from CalTech and a Ph.D. in Astrophysics from MIT.



Raju Kucherlapati, Ph.D.

is the Paul C. Cabot Professor in the Harvard Medical School Department of Genetics. He is also a professor in the Department of Medicine at Brigham and Women’s Hospital. Dr. Kucherlapati was the first Scientific Director of the Harvard Medical School-Partners Healthcare Center for Genetics and Genomics. His research focuses on gene mapping, gene modification, and cloning disease genes. During 1989-2001, Dr. Kucherlapati was the Lola and Saul Kramer Professor of Molecular Genetics and Chairman of the Department of Molecular Genetics at the Albert Einstein College of Medicine in New York. He was previously a professor in the Department of Genetics at the University of Illinois, College of Medicine. He began his research as an assistant professor in the Department of Biochemical Sciences at Princeton University.

He has chaired numerous NIH committees and served on the National Advisory Council for Human Genome Research and the NCI Mouse Models for Human Cancer Consortium. He is also a member of the Cancer Genome Atlas project of the National Institutes of Health. He is a member of the Institute of Medicine of the National Academy of Sciences and a fellow of the American Association for the Advancement of Science. He is a member of Presidential Commission for the Study of Bioethical Issues.

Dr. Kucherlapati received his B.S. and M.S. in Biology from universities in India, and he received his Ph.D. from the University of Illinois at Urbana, as well as conducting post-doctoral work at Yale University.



John Lauerman

is a reporter-at-large at Bloomberg News writing about health and higher education. Lauerman and his colleagues won a Polk Award and were Pulitzer finalists in 2011 for a series of stories on for-profit colleges that recruit low-income students, often to leave them with debt and no degree. The series also won a Gerald Loeb Award, a National Headliner Award, and the Education Writers Association Grand Prize. In 2010, he won a New York Press Club award for coverage of Harvard University's \$1 billion loss on risky investments. He won a 2009 award from the Society of the Silurians for his stories on the failed search for a vaccine against HIV. His team won a 2005 award from the Society of

American Business Writers and Editors for coverage of Merck & Co.'s withdrawal of the painkiller Vioxx after it was linked to heart disease. He has been a fellow of the Blue Cross Blue Shield of Massachusetts Health Coverage program and the Kaiser Family Foundation's program for science journalists. Before coming to Bloomberg, Lauerman was a science writer at Harvard Medical School from 1985 through 1988. Later, as a freelance journalist, he wrote a health column for Harvard Magazine, contributed to newspapers and magazines across the U.S., and edited the public health journal "Health and Human Rights." He is the co-author of two books: "Diabetes: Understand Your Condition, Make the Right Treatment Choices, and Cope Effectively," and "Living to 100." He lives with his wife and two children in Brookline, Massachusetts.



Lisa M. Lee, Ph.D., M.S.

is the Executive Director of the Presidential Commission for the Study of Bioethical Issues. Lee previously had been with the Centers for Disease Control and Prevention (CDC) since 1998, most recently serving as Chief Science Officer in the Office of Surveillance, Epidemiology, and Laboratory Sciences.

Lee, who has a Ph.D. from Johns Hopkins and an M.S. in bioethics from Alden March Bioethics Institute at Albany Medical College, is an epidemiologist, surveillance scientist, and public health ethicist. Lee's work at CDC has included ethics of public health surveillance, scientific integrity, development and evaluation of surveillance systems, research on HIV and fertility, HIV/AIDS survival, HIV and tuberculosis, and data quality. She has led several agency and cross-agency committees working to establish and maintain an environment of scientific integrity and excellence.

Lee is the lead editor of *Principles and Practice of Public Health Surveillance*, 3d edition (Oxford University Press, 2010). She has authored numerous scientific publications and has served as a peer and guest reviewer for many scientific conferences and scientific journals. She serves on the Board of Advisors and is adjunct faculty at Georgia State University's Institute of Public Health, where she teaches ethics.

SPEAKERS



Jeffrey Leiden, M.D., Ph.D.

is President, CEO and Chairman, joined Vertex in December 2011 and served on Vertex's board since 2009. Dr. Leiden brings to Vertex more than 20 years of scientific, commercial and financial experience in the pharmaceutical and biotechnology industries and clinical experience in academia as a practicing cardiologist and molecular biologist. Dr. Leiden is a Senior Advisor for Clarus Ventures, a life sciences venture capital firm he joined in 2006. In 2000, he joined Abbott Laboratories as President and Chief Operating Officer where he had responsibility for running Abbott's global pharmaceuticals business. While at Abbott, Dr. Leiden helped launch multiple breakthrough medicines, including Humira for rheumatoid arthritis and other autoimmune diseases and Kaletra for HIV infection, among others. He also served as a member of the Board of Directors of Abbott Laboratories from 2001 to 2006.

Dr. Leiden began his career in academia as a practicing cardiologist and molecular biologist. From 1987 to 2000, Dr. Leiden held several academic appointments, including roles as Chief of Cardiology at the University of Chicago and Professor of Medicine at Harvard Medical School and Brigham and Women's Hospital. During his academic career, Dr. Leiden was also involved in starting several biotechnology companies including Vical and Cardiogene.

Dr. Leiden held a number of board positions for pharmaceutical and biotechnology companies, including the role of non-executive Vice Chairman for Shire Pharmaceuticals plc. He was also a member of the Board of Directors of Millennium Pharmaceuticals, Inc. He is an elected member of both the American Academy of Arts and Sciences, and the Institute of Medicine of the National Academy of Sciences. Dr. Leiden received his M.D., Ph.D. and B.A. degrees from the University of Chicago.



Mia A. Levy, M.D., Ph.D.

is the Director of Cancer Clinical Informatics for the Vanderbilt-Ingram Cancer Center and an Assistant Professor of Biomedical Informatics and Medicine.

Dr. Levy received her undergraduate degree in Bioengineering from The University of Pennsylvania in 1997 and her Medical Doctorate from Rush University in 2003. She then spent 6 years at Stanford University completing post-graduate training in Internal Medicine and Medical Oncology while completing her PhD in Biomedical Informatics. She joined the faculty at Vanderbilt as an Assistant Professor in Biomedical Informatics and Medicine in August 2009. She is a practicing medical oncologist specializing in the treatment of breast cancer.

Dr. Levy's research interests include biomedical informatics methods to support the continuum of cancer care and cancer research. Current research projects include informatics methods for 1) image based cancer treatment response assessment using quantitative imaging, 2) clinical decision support for treatment prioritization of molecular subtypes of cancer, 3) protocol based plan management and 4) learning cancer systems.



Alan Mertz

became President of American Clinical Laboratory Association (ACLA) in 2003 and since that time he has exponentially grown ACLA's membership, visibility and advocacy efforts. ACLA has led a series of successful advocacy campaigns on laboratory reimbursement, regulation, coding, health IT and many other issues, including stopping legislation imposing laboratory co-pays in Medicare and repealing a laboratory Medicare competitive bidding project. ACLA also led industry efforts to ensure that regulatory changes with respect to genetic and molecular testing do not stifle innovation or harm patient care. ACLA launched the "Results for Life" educational campaign in 2007 to promote the value of laboratory services and in 2009, ACLA started its Associate Member

program for non-laboratory health care companies and organizations.

Prior to his current position, Mertz was Executive Vice President and Acting President of the Healthcare Leadership Council (HLC), and prior to that served in three senior staff positions in the House and Senate over 18 years. He is a frequent lecturer at American University, and was an adjunct professor at George Washington University (both in Washington, DC). Mertz holds a Masters Degree in American Politics from American University and a BA in Government from Monmouth College (IL).

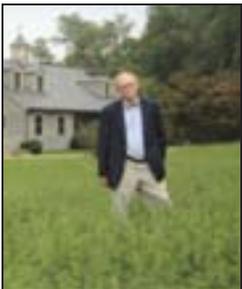


Amy Miller, Ph.D.

is the Vice President of Public Policy for the Personalized Medicine Coalition (PMC) which represents a broad spectrum of academic, industrial, patient, provider, and payer organizations that seek to advance the understanding and adoption of personalized medicine concepts and products for the benefit of patients. Dr. Miller works with these communities to reach consensus on policy issues impacting personalized medicine and share those views with policy makers.

Before joining the PMC, Dr. Miller worked in the office of the Director of the National Institute of Mental Health where she served as a liaison among the scientific community, the legislative branch, and the consumers of mental health care and their families. A former AAAS fellow, she also served as a domestic policy advisor to Senator Jay Rockefeller. She began her career as a researcher at National Institute of Child Health and Human Development.

Dr. Miller received a BA from the University of New Orleans and holds a doctoral degree in Human Development from the University of Connecticut.



D. Holmes Morton, M.D.

is a pediatrician and was the co-founder with his wife Caroline of the Clinic for Special Children, a non-profit medical center that provides care for children with complex medical problems arising from inherited predispositions to disease. The Clinic is located on an Amish farm in Lancaster County, Pennsylvania, near Strasburg. Although it is a local pediatric medical center, the Clinic has become recognized internationally for innovative studies in the discovery and treatment of inherited disorders. The Clinic's publications about the treatment of maple syrup urine disease can be found in *Pediatrics*, *Current Treatment Options in Neurology*, *Molecular Genetics and Metabolism*, *Brain*, *Journal of Pediatrics*, *Pediatric Transplant*, *Nature*, and *Gene Reviews*.

Genetics and Metabolism, *Brain*, *Journal of Pediatrics*, *Pediatric Transplant*, *Nature*, and *Gene Reviews*.

Holmes Morton graduated from Trinity College in 1979 with Honors in Biology and Psychology and was elected to Phi Beta Kappa. He studied medicine at Harvard Medical School and completed a 3-year Residency in Pediatrics at Children's Hospital. In 1986 Dr. Morton moved to Children's Hospital of Philadelphia to study biochemical genetics under Richard Kelley. In 1988, with the support of Hugo Moser, he moved to Dr. Kelley's new laboratory at Kennedy Krieger Institute at Johns Hopkins to develop methods for diagnosis and treatment of the Amish variant of Glutaric Aciduria Type 1. This work led to the establishment of the Clinic for Special Children in Lancaster County Pennsylvania in 1989.

Dr. Morton is a member of the American Academy of Pediatrics and the Society for Inherited Metabolic Disorders. In 1993, he was given the Albert Schweitzer Prize for Humanitarianism, a prize awarded jointly by the Alexander von Humboldt Foundation of Germany and Johns Hopkins University. In 2006 Dr. Morton was awarded a John D. and Catherine T. MacArthur Fellowship.

SPEAKERS



Ola Myklebost, Ph.D.

is Senior Scientist and Group Leader at the Department of Tumor Biology, Institute for Cancer Research, and Professor at the Department for Molecular Biosciences at the University of Oslo. He is also Assistant Director of CAST, the Centre for research-based Innovation (SFI) on Cancer Stem Cells, and previous head of the Norwegian Genomics Consortium. Currently he is heading the Norwegian Cancer Genomics Consortium, with the aim to introduce and investigate the use of tumor genome profiles for therapeutic decisions.

Dr. Myklebost took his MSc under Per Seglen at what is now Dept. of Cell Biology in 1982, then went to St. Mary's Hospital in London where he worked with recombinant DNA technology under the leadership of Bob Williamson. Returning to Oslo, he worked at the Institute for Internal Medicine at the National Hospital under Hans Prydz until 1987, when he had a research stay in the group of Keith Stanley at EMBL. Since 1988 he has again been employed at the Institute of Cancer Research, now at the Dept. of Tumor Biology. Dr. Myklebost received his Doctor of philosophia from the Medical Faculty, University of Oslo.



Richard Naples

is Senior Vice President of Regulatory Affairs, responsible for global market access and regulatory compliance functions, including premarket submissions, reimbursement and public policy. He has been with BD for a total of five years.

Mr. Naples has over 30 years experience in medical devices and diagnostics. He has been a chief corporate regulatory officer, an FDA regulator, and a clinical laboratory manager. He is currently co-chair of the AdvaMed Diagnostics Task Force and has been recognized as one of the top regulatory professionals in the industry. His experience includes over 300 successful regulatory submissions and leadership of numerous industry-wide initiatives to ensure more timely patient access to innovative new technologies.

Most recently prior to joining BD, Rick was Roche Diagnostics VP of Regulatory and Government Affairs after serving as a Consumer Safety Officer at FDA HQ Center for Biologics, Evaluation and Research (CBER). He also served on the boards of the New England Healthcare Institute (NEHI) and the Indiana Medical Device Manufacturers Council (IMDMC). Rick holds a Bachelor of Science degree in Chemistry/Medical Technology from Youngstown State University (Ohio).



Ming Qi, Ph.D.

received his B.S. from South China Normal University in 1982. He received his M.S. from Fudan University, Shanghai in 1985 and was mentored by Dr. C.C. Tan, the "Father of Genetics at China". He succeeded in the national competition to be a student of the CUSBEA (China-USA Biochemistry / Molecular Biology) Program and received his Ph.D. from the University of Pittsburgh in 1991. Dr. Qi did his postdoctoral training in Dr. Stan McKnight's Lab, University of Washington from 1991-1994. Dr. Qi had his clinical postdoctoral fellowship in Molecular Genetics with Dr. Peter Byers at the University of Washington from 1994-1998 and was certified in clinical molecular genetics by American Board of Medical Genetics in 1999. He is a Fellow of American College of

Medical Genetics. He has been the faculty of University of Rochester Medical School since 1998 as a Assistant Professor, Associate Professor and Professor. Dr. Qi served as a consultant of Harvard Medical School-Partners HealthCare Center for Genetics and Genomics and Visiting Geneticist of the Laboratory of Molecular Medicine in 2006. His research has been published in numerous peer reviewed scientific journals, including in Nat Genet, PNAS, Cell, Human Mol Genetics, JAMA, Circulation, Am J Med Genet, Human Mutation, etc. He is the Chief Advisor of the Chinese National Gene Health Committee, and the coordinator of the international Human Variome Project Chinese Consortium. He is an editorial board member of several international journals including Human Mutation, Giga-Science and ANE. He also serves as a reviewer for a number of international journals. Dr. Qi has recently been news-report interviewed by Nature and Science.



Paul Radensky, M.D.

is a partner in the law firm of McDermott Will & Emery LLP and is based in the Firm's Washington, D.C. and Miami offices. Paul is co-chair of the Firm's Life Sciences Government Strategies team and a member of the Personalized Medicine team.

Paul is a recognized authority on the full range of legal, regulatory and reimbursement issues pertaining to pharmaceutical, biotechnology, medical device, and clinical laboratory development and marketing. His background as a clinical researcher and medical practitioner informs his practical and scientific understanding of both product manufacturers and clinical laboratories. He advises manufacturers at every stage of

product development, including the design and monitoring of clinical trials, positioning and applying for FDA approval, maintaining regulatory compliance, and obtaining coverage, coding and payment for new technologies by Medicare, Medicaid and other third party payors. Paul also advises clinical laboratories on CLIA and state licensure compliance as well as evolving policies on FDA regulation of laboratory-developed tests.

Paul is ranked in The Best Lawyers in America (2009-2012).

Paul is board certified in internal medicine and is a member of the American College of Physicians and the Alpha Omega Alpha Honor Medical Society. He is a member of the District of Columbia Bar as well as the Florida Bar.



David Resnick, Esq.

is the co-leader of the Patents practice group at Nixon Peabody. His practice is focused on patent prosecution and overall portfolio management, transactional matters, and associated client counseling. David represents, and manages the portfolios of, some of the leading academic research institutions in the U.S., as well as some of the world's most recognized life science companies. He has extensive experience in the life sciences and is widely regarded as a thought leader in the area of personalized medicine, particularly with respect to pharmacogenomics, proteomics, and disease biomarkers, and their application in the field of personalized medicine.



Hakan Sakul, Ph.D.

is currently an Executive Director in the Clinical Research and Precision Medicine Group in Pfizer's Development Operations where he serves as the head of diagnostics across the Worldwide R&D organization and as the Development Operations Site Head for Pfizer-La Jolla. He also oversees the internal Biobank group located in Groton, CT. Hakan received his B.S. and M.S. degrees from Ankara University in Turkey, and his Ph.D. in Quantitative Genetics from the University of Minnesota as a Rotary Foundation Scholar. After conducting his postdoctoral studies at the University of California-Davis, he worked in the biotech industry in human genetics, pharmacogenomics and statistical

genetics fields. Hakan's tenure at Pfizer started at Parke-Davis Pharmaceuticals where he directed human genetics, statistical genetics and pharmacogenetics programs. Subsequently, he served as Director and Site Head for Clinical Pharmacogenomics in Groton/New London Laboratories before taking the role of Senior Director and Global Head of Companion Diagnostics for about four years to oversee Pfizer's companion diagnostics needs across the pharmaceutical portfolio. In 2010, Hakan moved to Pfizer's Oncology Business Unit to serve as Program Manager for the Xalkori (Crizotinib) Companion Diagnostics Development program, leading to simultaneous FDA approvals of both the drug and the companion diagnostic test. Hakan is keenly interested in technologies for identification of patient sub-groups for targeted treatment and the development of companion diagnostics to advance Precision Medicine for the improvement of individualized healthcare.

SPEAKERS



Randall Scott, Ph.D.

founded Genomic Health in 2000 and led the company as CEO for 9 years with a focus on improving the quality of treatment decisions for patients with cancer. Genomic Health was one of the first companies to translate genomic information into clinical practice by developing the Oncotype DX series of tests for breast, colon, and prostate cancer, each of which is designed to improve the quality of care and reduce healthcare costs. Under his leadership, Genomic Health led a transformation in medical and business practice to incorporate complex genomic tests into routine medical practice with full reimbursement support by national payers. Dr. Scott has played a role in founding several successful biotech companies in addition to Genomic Health Inc. such as Incyte, a leading

biopharmaceutical company as well as his newest enterprise InVita Corporation where he is focused on expanding beyond cancer to bring the power of the human genome into routine medical practice for every individual at risk for common or rare genetic conditions. He is the author of over 40 scientific publications, 20 patents, and is the recipient of numerous awards.



Norman C. Selby

has spent 30 years in the healthcare world in a variety of consulting, managerial, investment and Board roles. He is currently Executive Chairman of two innovative healthcare information businesses: Real Endpoints LLC and Physicians Interactive. In addition, Mr. Selby serves as a Senior Advisor to Perseus LLC, a private equity firm based in Washington, D.C.

Mr. Selby is also on the Board of three healthcare product companies: Infinity Pharmaceuticals, a leading public (INFI) oncology biotech company; Metamark Genetics, an oncology diagnostics company; and Merz Group GmbH, a global specialty pharma company based in Frankfurt, Germany.

In the decade of the 2000s, Mr. Selby was involved with three companies that had successful exits: From 2000 – 2008, he was on the Board of Millennium Pharmaceuticals (MLNM) which was acquired by Takeda; from 2001 – 2004, he was President and CEO of TransForm Pharmaceuticals which was acquired by Johnson & Johnson; and from 2004 – 2008, he was Executive Chairman of Windhover Information which was acquired by Reed Elsevier.

Mr. Selby spent the bulk of his career at McKinsey & Company where he was Director (Senior Partner) in the firm's New York office. He held several leadership roles at McKinsey, including head of the firm's Global Pharmaceuticals and Medical Products Practice. From 1987-1989, Mr. Selby took a leave of absence from McKinsey to serve as Chief Operating Officer of the New York Blood Center, the largest community blood organization in the country, where he led its financial and operational turnaround. After McKinsey, he went to Citicorp/Citigroup where he was an Executive Vice President.

Mr. Selby serves on the Board of Trustees of the Central Park Conservancy, the Memorial Sloan-Kettering Cancer Center, and the Ralph Lauren Center for Cancer Care and Prevention, all based in New York City. He is also a member of the advisory board of the Harvard Business School's Healthcare Initiative and a Board member of the National Parks Conservation Association in Washington D.C.

Mr. Selby holds a B.A. in Architecture from Yale College and an M.B.A. with Distinction from the Harvard Graduate School of Business Administration.



Lt. Col. Cecili K. Sessions, M.D., M.P.H., FAAP

is assigned to the United States Air Force Medical Support Agency, Medical Research & Innovations Division, as Chief, Personalized Medicine, and directs the Patient-Centered Precision Care Genomic Medicine Research Program (PC2-Z). Prior to this assignment, she served as the Air Force Liaison to the Armed Forces Health Surveillance Center, the central strategic epidemiological resource for the Armed Forces of the United States. As an active duty pediatrician, she was stationed at Incirlik AB, Turkey, and Kadena AB, Okinawa.

Dr. Sessions received her degree from the Keck School of Medicine at the University of Southern California in 2000, after which she completed a Pediatric Residency at Georgetown University,

where she was selected Resident of the Year in her graduating class of 2003. Both her undergraduate degree at Stanford University (AB, 1996) and graduate coursework (MPH, 2007) during the General Preventive Medicine Residency at the Uniformed Services University of the Health Sciences focused on International Health. During her graduate medical education, Dr. Sessions completed two externships with the Pan American Health Organization at their headquarters in Washington, D.C.



Michael Snyder, Ph.D.

is the Stanford Ascherman Professor and Chair of Genetics and the Director of the Center of Genomics and Personalized Medicine at Stanford University School of Medicine. Dr. Snyder received his Ph.D. training at the California Institute of Technology and carried out postdoctoral training at Stanford University. He is a leader in the field of functional genomics and proteomics. His laboratory study was the first to perform a large-scale functional genomics project in any organism, and has launched many technologies in genomics and proteomics. These including the development of proteome chips, high resolution tiling arrays for the entire human genome, methods for global mapping of

transcription factor binding sites (ChIP-chip now replaced by ChIP-seq), paired end sequencing for mapping of structural variation in eukaryotes, and RNA-Seq. These technologies have been used for characterizing genomes, proteomes and regulatory networks. Seminal findings from the Snyder laboratory include the discovery that much more of the human genome is transcribed and contains regulatory information than was previously appreciated, and a high diversity of transcription factor binding occurs between and within species. He is a cofounder of several biotechnology companies, including Protometrix (now part of Life Technologies), Affomix (now part of Illumina), Excelix, and Personalis, and he presently serves on the board of a number of companies.



Risa Stack, Ph.D.

is a partner at Kleiner Perkins Caufield & Byers. Since joining the firm in 2003, she has worked to build and support KPCB's personalized medicine portfolio. Risa has been the founding CEO and a board member of several personalized medicine companies, including CardioDx and Nodality. Risa is a board observer at Tethys, Veracyte and Xdx. In addition to her work directly with portfolio companies, Risa is involved in developing public policy in molecular diagnostics and personalized medicine. Risa is also involved in the development of therapeutics companies, including Corthera and Trius. She was most recently a board member of Corthera (sold to Novartis in 2009),

and she is a board observer at Epizyme and Pacific Biosciences.

Risa has 15 years of experience investing in personalized medicine, therapeutics and platform technologies. Her investment career spans from incubations to public companies. Most recently, she has focused on starting companies, often taking operational roles. Before joining KPCB, Risa was a principal at J.P. Morgan Partners in the life science practice for six years. While at J.P. Morgan Partners, she sponsored a series of investments including Acurian, Connetics (acquired by Steifel Laboratories), Diatide (acquired by Berlex), Ilex Oncology (acquired by Genzyme), Illumina, and Triangle Pharmaceuticals (acquired by Gilead). Risa was also involved in JP Morgan Partners' international investing efforts, which included European life sciences companies and managing a portfolio of Israeli early stage life sciences and IT companies. Before joining the venture capital industry, Risa worked as a derivative specialist on the Chicago Board of Trade, where she traded futures and options on government securities.

Risa received her B.S. degree in genetics and development with distinction from the University of Illinois and her Ph.D. in immunology from the University of Chicago. She was also a member of the second class of Kauffman Fellows. Risa also serves as a member of the advisory board of the National Summit on Personalized Healthcare and GE's Healthymagination effort. In 2004, Risa was named as one of the 100 Most Influential Women in Business by the *San Francisco Business Times*.

SPEAKERS



Michael R. Streit, M.D., M.B.A.

is Executive Director at GlaxoSmithKline-Oncology and the Program Physician Leader for the small-molecule GSK1120212 (MEK-inhibitor) clinical development program.

Dr. Streit received his MD from the Free University of Berlin (Germany) in 1985 and did postgraduate training at the Benjamin Franklin Medical Center in Berlin and the Massachusetts General Hospital in Boston. Prior to joining GSK in 2011, Dr. Streit worked in the field of clinical drug research and development for Bristol-Myers Squibb, Boehringer-Ingelheim Pharmaceuticals, and Berlex Biosciences.



Robert I. Tepper, M.D.

is a distinguished scientist with over 25 years of experience building and operating leading R&D operations. Bob co-founded Third Rock Ventures in 2007 and focuses on the formation, development and scientific strategy of our portfolio companies as well as actively identifying and evaluating new investments. He also assumes active leadership roles in our portfolio companies, functioning as Chief Scientific Officer through the first 12-18 months post launch.

Prior to joining Third Rock Ventures, Bob was President of R&D at Millennium Pharmaceuticals and was vital in its expansion from a drug discovery company to a fully-integrated biopharmaceutical company. Prior to Millennium, Bob co-founded Cell Genesys/Abgenix.

Bob holds an A.B. in Biochemistry from Princeton University and received his M.D. degree from Harvard Medical School. Bob serves as an adjunct faculty member at Harvard Medical School and Massachusetts General Hospital and is an advisory board member of several leading health care institutions including the Partners HealthCare Center for Personalized Genetic Medicine, the Massachusetts General Hospital and Tufts Medical School.

Joe Vockley, Ph.D.

is Chief Operating Officer and Chief Scientific Officer of the Inova Translational Medicine Institute. Dr. Vockley brings 25 years of experience in academic, pharmaceutical, biotechnology CROs and government research. He has broad and deep expertise in the fields of genetics, genomics, molecular diagnostics, bioinformatics and large program management.

Dr. Vockley is a results-oriented manager and scientist. He is an inventor on numerous US and international genomic and bioinformatic technology patents in the areas of DNA diagnostics, laboratory methods for microarray analysis, gene discoveries and bioinformatic tool development. His basic research interests are in the fields of cancer and inborn errors of metabolism.

Dr. Vockley has previously held the positions of Chief Scientific Officer, Vice President of Research, Director of Genomics and Director of Bioinformatics. Most recently, he was the director of National Cancer Institute's Cancer Genome Atlas Project and The Cancer Genome Atlas Program Office.



M. Kathleen Behrens Wilsey, Ph.D.

served as a Member of the President's Council of Advisors on Science and Technology (PCAST), from 2001 to 2009, working on multiple national policy matters. She chaired PCAST's Subcommittee on Personalized Medicine and led a two year study that culminated in the September 15, 2008 report, Priorities for Personalized Medicine. Kathy was a director of the Board on Science, Technology and Economic Policy (STEP) for the National Research Council from 1997-2005, at which time she participated as a member of the Institute of Medicine Committee on New Approaches to Early Detection and Diagnosis of Breast Cancer. Kathy was a director of the National Venture Capital Association from 1993 to 2000, also serving as President, Chairman and Past Chairman from

October of 1999 through April of 2000. Dr. Behrens Wilsey currently serves as a member of the Board of Directors of Sarepta

Therapeutics, Inc. and KEW Group Inc. Kathy holds a Ph.D. in Microbiology from the University of California, Davis.

Kathy established a career in the financial services industry, working with Robertson Stephens & Co. until 1996, where she became a general partner and managing director. Dr. Behrens Wilsey continued in her capacity as a General Partner for selected venture funds for RS Investments, after management led a buy-out of that firm from Bank of America. Her professional career includes tenures as a public-market life-sciences securities analyst, as well as venture capitalist focusing on healthcare and technology investments. She was instrumental in the founding of several life-sciences companies including Protein Design Labs, Inc. and COR Therapeutics, Inc. and participated in financing a broad range of health care services and products companies.

Dr. Behrens Wilsey served as a director of Abgenix, Inc. in a role that spanned that firm's early rounds of private financings through the company's sale in 2006 to Amgen, Inc. and was a director of Amylin Pharmaceuticals, Inc. from 2009 until the company's recent sale in 2012 to Bristol-Myers Squibb Co. Dr. Behrens Wilsey has worked for the last several years with KEW Group Inc. in developing a personalized medicine oncology management company and currently serves as KEW Group's President & CEO.



George Yancopoulos, M.D., Ph.D.

graduated as valedictorian of both the Bronx High School of Science and Columbia College, and earned his advanced degrees at Columbia University's College of Physicians and Surgeons. Following widely-recognized work in the field of molecular immunology at Columbia with Dr. Fred Alt, Dr. Yancopoulos left academia in 1989 as founding scientist for Regeneron Pharmaceuticals, where he continues to serve as President of the Laboratories and Chief Scientific Officer. He is also adjunct full professor at Columbia University and was awarded Columbia's Stevens Triennial prize for Research and the University Medal of Excellence for Distinguished Achievement. Dr. Yancopoulos is widely regarded as a world

leader in several fields of biology and has authored more than 350 scientific manuscripts. According to a study by the Institute for Scientific Information, Dr. Yancopoulos was the eleventh most highly cited scientist in the world during the 1990's. In 2004, he was elected to both the National Academy of Sciences and the American Academy of Sciences. Dr. Yancopoulos' scientific efforts have focused on the discovery of growth factors (such as the neurotrophins, ephrins and angiopoietins), their receptors, and their signaling pathways, as well as on developing new platforms for target and drug discovery such as *Trap Technology*, *VelociGene* and *VelocImmune*. His research has led to unifying models of molecular and biologic function, as well as new approaches to treating disease. Dr. Yancopoulos and his team have progressed numerous drug candidates to human trials, including the IL1-Trap (ARCALYST®) which has recently been approved for treatment of an orphan inflammatory disease, the VEGF Trap-Eye (EYLEA®) which has recently been approved for age-related macular degeneration (the most common cause of blindness in the elderly), the VEGF Trap-Onc (ZALTRAP®) for cancer, and several fully human monoclonal antibodies derived using *VelocImmune* technology for various indications including cholesterol-lowering and inflammatory diseases.

ABOUT US

Partners Healthcare Center For Personalized Genetic Medicine

The Partners HealthCare Center for Personalized Genetic Medicine (PCPGM) was launched in 2001 as the Harvard Medical School-Partners HealthCare Center for Genetics and Genomics. Its purposes from its founding have been to promote genetics and genomics in research and clinical medicine and to help realize the promise of personalized medicine by accelerating the integration of genetic knowledge into clinical care throughout the Partners HealthCare System (PHS) and in healthcare nationally and globally. PCPGM is accomplishing its mission by supporting and facilitating:

- pursuing important discoveries that will enable advancing the knowledge of how genetics affects human health and disease
- offering genetic-based diagnostic testing and developing new tests through a CLIA- and state-approved Laboratory for Molecular Medicine
- developing an IT infrastructure to integrate genetic and genomic data into clinical decision support systems
- educating practicing clinicians, investigators, health care professionals
- developing a program in Personalized Predictive Medicine

Personalized medicine is the ability to determine an individual's unique molecular characteristics and to use those genetic distinctions to diagnose more finely an individual's disease, select treatments that increase the chances of a successful outcome and reduce possible adverse reactions. Personalized medicine also is the ability to predict an individual's susceptibility to diseases and thus to try to shape steps that may help avoid or reduce the extent to which an individual will experience a disease.

For personalized medicine to be a fully functioning reality at the clinical level, certain elements are essential: an electronic medical record, personalized genomic data available for clinical use, physician access to electronic decision support tools, a personalized health plan, personalized treatments, and personal clinical information available for research use. Partners HealthCare has made a firm commitment to the principles of personalized medicine and to the importance of genetics and genomics in delivering the best care of patients. PHS also has committed to ensuring that the features above are or will be available.

The essential feature of the revolution in genetics and genomics has been an explosion in the amount of data available for use in translational research. This massive data profusion has enhanced our ability to predict clinical phenotypes and to predict clinical outcomes on the basis of genome scale data. However, to be able to do this sort of prediction investigators need several tools. First, they need a robust bioinformatics infrastructure with secure pipelines and robust algorithms for data cleaning and manipulation. Second, they need very strong bioinformatics platforms for data analysis and data management. Third, they need access to large numbers of very well phenotyped patients. Fourth, they need access to the genomic platforms to create genomic scale data on these patients for prediction of clinical outcomes. Finally, they need novel statistical and bioinformatics methods to analyze these data for predictive medicine. PCPGM makes all of these resources available to Partners investigators through a highly developed infrastructure consisting of bioinformatics and genetic statistics; biosample repository; core sequencing, genotyping and GeneChip® and microarray laboratories; and information technology services.

For more information about PCPGM, please visit <http://pcpgm.partners.org>.

Harvard Business School

Harvard Business School's mission is to train business leaders in all industries. Healthcare, a \$2 trillion industry, has become one of the school's key priorities. The Healthcare Initiative at HBS was launched in 2005 to bring together the extensive research, thought leadership, and interest in the business and management of healthcare that exists at HBS.

Healthcare research at HBS focuses on entrepreneurship, innovation and disruption. Faculty and students seek to understand and identify new products, services and delivery methods that will help to reshape the industry. HBS believes this focus on "creative destruction" will result in business models that offer the hope of improved outcomes, reduced costs, streamlined systems, and enhanced services.

Personalized medicine presents tremendous opportunities in healthcare and has garnered much attention at HBS. With its expertise in technology, commercialization, and business model development, HBS can play a critical role in the widespread adoption of personalized medicine applications.

For more information about the HBS Healthcare Initiative, please visit www.hbs.edu/healthcare.

INTRODUCTION

SUPPORTERS

PROGRAM

SPEAKERS

ABOUT US

ORGANIZING
COMMITTEE

ORGANIZING COMMITTEE

Raju Kucherlapati, Ph.D., Chair
Harvard Medical School

Edward Abrahams, Ph.D.
Personalized Medicine Coalition

Joanne Armstrong, M.D.
Aetna, Inc.

Anna Barker, M.D.
Arizona State University

Troyan Brennan, M.D., M.P.H.
CVS Caremark

Brook Byers
Kleiner Perkins Caufield & Byers

Nadine Cohen, Ph.D.
Janssen Pharmaceutical Companies of
Johnson & Johnson

Gregory Downing, Ph.D.
The U.S. Department of Health and Human
Services

Stephen Eck, M.D., Ph.D.
Astellas Pharma Global Development, Inc.

Felix Frueh, Ph.D.
Third Rock Ventures

Richard G. Hamermesh, D.B.A.
Harvard Business School

Marcia A. Kean
Feinstein Kean Healthcare

Jeffrey Leerink
Leerink Swann LLC

Lawrence J. Lesko, Ph.D., F.C.P.
University of Florida

Gerald J. McDougall
PricewaterhouseCoopers

Kristin Pothier
Health Advances LLC

Hakan Sakul, Ph.D.
Pfizer – Worldwide R&D

Sue Siegel
GE Corporate

Risa Stack, Ph.D.
Kleiner Perkins Caufield & Byers

Katherine Johansen Taber, Ph.D.
American Medical Association

Robert Tepper, M.D.
Third Rock Ventures

Scott Weiss, M.D., M.S.
Harvard Medical School
Partners HealthCare Center
for Personalized Genetic Medicine

M. Kathleen Behrens Wilsey, Ph.D.
KEW Group

PCPGM Contacts

Janice Larson
Partners HealthCare Center for Personalized
Genetic Medicine (PCPGM)

Alfred A. Blum
Partners HealthCare Center for Personalized
Genetic Medicine (PCPGM)

CONFERENCE STAFF



Scott Weiss, M.D., M.S.
Scientific Director
Partners HealthCare Center for
Personalized Genetic Medicine
Professor of Medicine
Harvard Medical School
Brigham and Women's Hospital



Alfred A. Blum, Jr.
Chief Development Officer
aablum@partners.org



Janice Larson
Development Associate
jalarson@partners.org



Meini Sumbada Shin
Administrative Director
msumbadashin@partners.org

INTRODUCTION

SUPPORTERS

PROGRAM

SPEAKERS

ABOUT US

ORGANIZING
COMMITTEE

HIGHLIGHTS OF PAST CONFERENCES



WWW.PERSONALIZEDMEDICINECONFERENCE.ORG

SAVE THE DATE

9TH ANNUAL PERSONALIZED MEDICINE CONFERENCE

NOVEMBER 9-10, 2013

JOSEPH B. MARTIN CONFERENCE CENTER
AT HARVARD MEDICAL SCHOOL, BOSTON



CENTER FOR PERSONALIZED
GENETIC MEDICINE



HARVARD
BUSINESS
SCHOOL