October 18 – Day 1

8:15 AM  Registration:  BRB Lobby

9:15 AM  Introduction
J. Larry Jameson, MD, PhD, Executive Vice President, University of Pennsylvania for the Health System, and Dean, Perelman School of Medicine, University of Pennsylvania

9:30 AM  Session 1:  New Structures for Translational Research (Part 1)
Chairs: Rory Collins, FRCP, FMedSci, Professor of Medicine and Epidemiology, University of Oxford and Principal Investigator and CEO of UK Biobank; and Daniel J. Rader, MD, Edward S. Cooper, MD and Norman and Elizabeth McLure Professor of Medicine and Pharmacology, Chief, Division of Translational Medicine and Human Genetics, Associate Director, Institute for Translational Medicine and Therapeutics, Perelman School of Medicine, University of Pennsylvania

Sir Colin Dollery, FRCP, FMedSci, Senior Consultant, GlaxoSmithKline
Efficacy is the Key: Removing the Road Blocks and Building the Future

10:00 AM  Chas Bountra, PhD, Chief Scientist - Structural Genomics Consortium, Professor of Translational Medicine, University of Oxford
Pioneer Drug Discovery: An Alternative (Only?) Way Forward

10:30 AM  COFFEE
11:00 AM  **Session 1: New Structures for Translational Research (Part 2)**

Chairs: Pamela B. Davis, MD, PhD, Dean and Vice President for Medical Affairs, Arline and Curtis Garvin Research Professor, Case Western Reserve University School of Medicine; and Glen N. Gaulton, PhD, Executive Vice Dean, Chief Scientific Officer, and Professor of Pathology and Laboratory of Medicine at the Perelman School of Medicine, University of Pennsylvania School of Medicine

Jeffrey Bluestone, PhD, A.W. and Mary Margaret Clausen Distinguished Professor of Metabolism and Endocrinology, Director of the Hormone Research Institute, Executive Vice Chancellor and Provost, University of California, San Francisco

*Novel Academic-Industry-Government Partnerships – Lessons Learned from Immune Tolerance Network and Beyond*

11:30 AM  **Stephen H. Friend, MD, PhD**, President, Sage Bionetworks

*Novel Structures (and Non-Structures) to Facilitate Translational Research*

Noon – 1PM  **LUNCH: BRB Lobby**

1:00 PM  **Session 2: Translational Research in Practice (Part 1)**

Chairs: Lisa M. Guay-Woodford, MD, Professor and Vice Chair of Genetics, Director, Center for Clinical and Translational Science, University of Alabama at Birmingham; and Gary Koretzky, MD, PhD, Francis C. Wood Professor of Medicine, Perelman School of Medicine, University of Pennsylvania

Beatrice H. Hahn, MD, Professor of Medicine and Microbiology, Perelman School of Medicine, University of Pennsylvania

*Understanding HIV-1 Transmission*

1:30 PM  **Shaun R. Coughlin, MD, PhD**, Distinguished Professor in Cardiovascular Biology and Medicine, Director of the Cardiovascular Research Institute, University of California at San Francisco

*Protease-Activated Receptors: Discovery to Drug, Warts and All*

2:00 PM  **Isaac S. Kohane, MD, PhD**, Lawrence J. Henderson Professor of Health Sciences and Technology, Director of the Countway Library of Medicine, Co-Director of the Center for Biomedical Informatics, Harvard Medical School; and Director, i2b2 National Center for Biomedical Computing

*Overcoming the Incidentalome for a Responsible Genomic Medicine*

2:30 PM  **Jun Wang, PhD**, Executive Director of BGI (formerly known as Beijing Genomics Institute)

*Sequencing, Sequencing and Sequencing*

3:00 PM  **Jeremy K. Nicholson, PhD, FRSC, FRCPath, FMedSci**, Head of Department of Surgery and Cancer, Imperial College London, UK.

*Systems Medicine and Patient Journey Phenotyping*
6:30 PM Reception and dinner at The College of Physicians of Philadelphia, 19 South 22nd Street, Philadelphia
Dinner Speaker: Ezekiel J. Emanuel, Vice Provost for Global Initiatives, Diane v.S. Levy and Robert M. Levy University Professor, The University of Pennsylvania
Shuttle service will be provided to and from the dinner. Buses will depart from BRB front entrance at 6:10PM and will return guests to the Hilton Inn at Penn and Sheraton University City at approximately 9:00PM. Valet parking will also be available at the dinner.
Speakers and chairs may take a shuttle bus from the Hilton Inn at Penn, Walnut Street entrance to hotel, departing at 6:10PM

October 19 - Day 2
8:15 AM Registration and breakfast: BRB Lobby
9:15 AM Session 2: Translational Research in Practice (Part 2)
Chairs: Perry V. Halushka, MD, PhD, Dean, College of Graduate Studies, Director, Medical Scientist Training Program, Professor of Pharmacology and Medicine, Medical University of South Carolina; and Desmond Fitzgerald, MD, Professor of Molecular Medicine, Conway Institute of Biomolecular and Biomedical Research, University College Dublin, and Vice President for Research, University College Dublin
Carl June, MD, Professor of Pathology and Laboratory Medicine, and Program Director for Translational Research in the Abramson Family Cancer Research Institute, Perelman School of Medicine, University of Pennsylvania
Synthetic Biology with Engineered T Cells
9:45 AM Jonathan G. Seidman, PhD, Henrietta B. and Frederick H. Bugher Foundation Professor of Genetics, Harvard Medical School
Genetics Studies of the Cardiomyopathies
10:15 AM COFFEE
10:45 AM  **Session 3: Translational Proteomics**
Chairs: John B. Hogenesch, PhD, Associate Professor of Pharmacology and Associate Director of the Penn Genome Frontiers Institute, Perelman School of Medicine, University of Pennsylvania and Ian A. Blair, PhD, A.N. Richards Professor of Pharmacology and Director of the Center for Cancer Pharmacology, Perelman School of Medicine, University of Pennsylvania

Donald F. Hunt, PhD, University Professor of Chemistry and Pathology, University of Virginia

**Innovative Technology for the Identification of Cancer Immunotherapeutics**

11:15 AM  James R. Heath, PhD, Elizabeth W. Gilloon Professor and Professor of Chemistry, California Institute of Technology

**Highly Multiplexed, Quantitative Proteomics at the Single Cell Level as a Clinical Diagnostic Tool**

11:45 AM  **LUNCH**

1:00 PM  **Session 4: Generation and Application of MegaData**
Chairs: Mitchell J. Weiss, MD, PhD, Professor of Pediatrics, Children’s Hospital of Philadelphia, and Griffin Weber, MD, PhD, Chief Technology Officer of Harvard Medical School (HMS), Director of the Biomedical Research Informatics Core (BRIC) at Beth Israel Deaconess Medical Center (BIDMC), Instructor of Medicine at Harvard Medical School in the Division of Interdisciplinary Medicine and Biotechnology, Department of Medicine, Beth Israel Deaconess Medical Center

Shelley L. Berger, PhD, Daniel S. Och University Professor, Department of Cell and Developmental Biology, Perelman School of Medicine, University of Pennsylvania

**The Epigenetic Regulation of the Genome**

2:00 PM  Daniel J. Rader, MD, Edward S. Cooper, MD and Norman and Elizabeth McLure Professor of Medicine and Pharmacology, Chief, Division of Translational Medicine and Human Genetics, Associate Director, Institute for Translational Medicine and Therapeutics, Perelman School of Medicine, University of Pennsylvania

**Functional Validation of Novel Loci Identified by GWAS and Implications for Novel Therapeutics**

2:30 PM  **COFFEE**
3:00 PM  **Session 5: Translation to Drug Discovery**
Chairs: Mark Lemmon, PhD, Professor and Chair of Biochemistry and Biophysics, Perelman School of Medicine, University of Pennsylvania, and Virginia Lee, Ph.D., John H. Ware 3rd Professor in Alzheimer’s Research, Director of Center for Neurodegenerative Disease Research and Co-Director of the Marian S. Ware Center for Alzheimer's Drug Discovery Program, Perelman School of Medicine, University of Pennsylvania
Joseph Schlessinger, PhD, William H. Prusoff Professor and Chair of Pharmacology, Yale University School of Medicine
*Cell Signaling by Receptor Tyrosine Kinases; from Basic Principles to Cancer Therapy*

3:30 PM  Peter J. Ratcliffe, MD, FRCP, FMedSci, FRS, Nuffield Professor of Medicine and Head of Department, Nuffield Department of Clinical Medicine, University of Oxford
*Drug Target Discovery in Academia*

4:00 PM  Garret A. FitzGerald, MD, Robert L. McNeil, Jr. Professor in Translational Medicine and Therapeutics, Chair, Department of Pharmacology, Director of ITMAT, Perelman School of Medicine, University of Pennsylvania
*Concluding Remarks*

Funding for this conference was made possible in part by 1 R13 RR026129-03 from the National Center for Research Resources. The views expressed in written conference materials or publications and by speakers and moderators do not necessarily reflect the official policies of the Department of Health and Human Services; nor does mention by trade names, commercial practices, or organizations imply endorsement by the U.S. Government.