



ITMAT 15th Annual International Symposium
Monday and Tuesday, October 12-13, 2020
Perelman School of Medicine, University of Pennsylvania
Free Virtual Event – [Register Here](#)

**Novel Therapeutics and Democratization of Access:
 Implementation of Translational Science**

Monday, October 12 (Day 1)

8:45

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

Session 1: Models of Drug Development

Chairs: Robert H. Vonderheide, MD, DPhil, Director, Abramson Cancer Center; Vice Dean, Cancer Programs, Perelman School of Medicine; Vice President, Cancer Programs, University of Pennsylvania Health System; University of Pennsylvania, and **Frances E. Jensen, MD, FACP**, Professor and Chair, Department of Neurology; Co-Director Penn Medicine Translational Neuroscience Center, Perelman School of Medicine, University of Pennsylvania

9:00

Leveraging Translational Studies to Meet the Challenges of Neuroscience Drug Discovery

Fiona Marshall, PhD, VP Head of Discovery Research, Merck Research Laboratories

9:30

Learning from Every Cancer Patient in Developing and Delivering Cancer Medicines

Michael Vasconcelles, MD, Chief Medical Officer, Flatiron Health

Session 2: Democratization of Access to the Benefits of Translational Science

Chairs: Carolyn Cannuscio, ScD, Associate Professor of Family Medicine and Community Health, Perelman School of Medicine, University of Pennsylvania, and **Daniel J. Rader, MD**, Seymour Gray Professor of Molecular Medicine; Chair, Department of Genetics; Chief, Division of Translational Medicine and Human Genetics, Department of Medicine, Perelman School of Medicine, University of Pennsylvania

- 10:30 ***Legal and Ethical Issues Relevant to Genetic Self-Exploration Tools***
Christi Guerrini, JD, MPH, Assistant Professor, Center for Medical Ethics and Health Policy, Baylor College of Medicine
- 11:00 ***Bringing Research from Bedside to Population: ASCVD Risk Reduction Efforts in Philadelphia***
Kevin G. Volpp, MD, PhD, Founders Presidential Distinguished Professor, Perelman School of Medicine and the Wharton School; Director, Penn Center for Health Incentives and Behavioral Economics (CHIBE), University of Pennsylvania
- 11:30 ***Balancing Innovation and Affordable Drug Prices: A Patient Perspective***
David Mitchell, Cancer Patient and Founder, Patients for Affordable Drugs

Session 3a: The Human as a Model Organism

Chairs: **Mark L. Kahn, MD**, Cooper-McLure Professor of Medicine, Division of Cardiovascular Medicine, Perelman School of Medicine, University of Pennsylvania, and **George Cotsarelis, MD**, Milton B. Hartzell Professor and Chairman, Department of Dermatology; Director, Program on Epithelial Regeneration and Stem Cells, University of Pennsylvania Institute for Regenerative Medicine; Director, University of Pennsylvania Hair and Scalp Clinic, Perelman School of Medicine, University of Pennsylvania

- 1:00 ***Growing Organs In Vivo: iPS Cell-Derived, Xeno-Created Organs for Transplantation***
Hiromitsu Nakauchi, MD, PhD, Professor, Institute of Stem Cell Biology and Regenerative Medicine, Department of Genetics, Stanford University School of Medicine
- 1:30 ***Human Skin Biology***
Fiona M. Watt, MA, DPhil, Professor, King's College London
- 2:00 ***Utilization of Single-Cell Genomics to Guide Therapeutic Decisions in Severe Drug Hypersensitivity***
Keisuke (Chris) Nagao, MD, PhD, Earl Stadtman Investigator & Head, Cutaneous Leukocyte Biology Section, Dermatology Branch, National Institutes of Arthritis and Musculoskeletal and Skin Diseases (NIAMS), National Institutes of Health

Session 3b: The Human as a Model Organism

Chairs: **Marylyn Ritchie, PhD**, Professor of Genetics, Associate Director for Bioinformatics, Institute for Biomedical Informatics, Perelman School of Medicine, University of Pennsylvania, and **Mitchell Schnall MD, PhD**, Eugene P. Pendergrass Professor and Chairman of Radiology, Perelman School of Medicine, University of Pennsylvania

- 3:00 **Whole-body Imaging in Health and Disease**
Madeleine Cule, PhD, Principal Data Scientist, Calico Life Sciences
- 3:30 **Precision Medicine is Enhanced with Metabolomics and MRI Whole-body Imaging**
C. Thomas Caskey, MD, FACP, FACMG, FRSC, Professor of Molecular and Human Genetics, Baylor College of Medicine
- 4:00 **Precision Healthcare through Multi-Scale Biomedical Data Integration**
Jessilyn Dunn, PhD, Assistant Professor, Biomedical Engineering and Biostatistics & Bioinformatics, Duke University
- 4:30 **GDF15, From Biomarker to Hormone**
Stephen O’Rahilly, MD, Professor, Institute of Metabolic Science, University of Cambridge
- 6:00 **Cocktail Hour: A Conversation with Edward Luce**, Chief US Commentator, Financial Times, "An Election Like No Other"

Tuesday, October 13 (Day 2)

Session 4: The Science of Novel Therapies

Chairs: Keith Peters, FRS, Emeritus Regius Professor of Physic, University of Cambridge, and **Sara Cherry, PhD**, Professor of Pathology and Laboratory Medicine and Microbiology, Department of Microbiology; Scientific Director, High-throughput Screening Core Director, Program for Chemogenomic Discovery, Perelman School of Medicine, University of Pennsylvania

- 9:00 **How Poliovirus Became a Treatment for Brain Cancer**
Annick Desjardins, MD, FRCPC, Associate Professor of Neurosurgery and Neurology; Director of Clinical Research, The Preston Robert Tisch Brain Tumor Center at Duke, Duke University Medical Center
- 9:30 **Targeted Delivery of Lipid Nanoparticles Containing Nucleoside-Modified mRNA Therapeutics**
Drew Weissman, MD, PhD, Professor of Medicine, Perelman School of Medicine, University of Pennsylvania.
- 10:00 **New Directions with New CAR T Cells**
Marcela V. Maus, MD, PhD, Director, Cellular Immunotherapy Program; Attending Physician, Heme/Onc, Massachusetts General Hospital; Assistant Professor of Medicine, Harvard Medical School; Associate Member, Broad Institute of Harvard and MIT, Harvard Medical School

10:30 ***The Role of Oxidized Phospholipids in Inflammation: From Bench to the Clinic***
Joseph L. Witztum, MD, Professor of Medicine, University of California, San Diego

Session 5: Translational Challenges in Zoonoses

Chairs: Susan R Weiss, PhD, Professor and Vice Chair, Department of Microbiology; Co-Director, Center for Research on Coronaviruses and Other Emerging Pathogens, Perelman School of Medicine, University of Pennsylvania, and **John H. Wolfe, VMD, PhD**, Professor, Departments of Pathobiology and Pediatrics, School of Veterinary Medicine and Perelman School of Medicine; Director, Walter Flato Goodman Center for Comparative Medical Genetics, University of Pennsylvania; Stokes Investigator, Children's Hospital of Philadelphia

11:30 ***Dissecting the Heterogeneity of COVID-19 in Multi-ethnic UK Populations***

Ajay M Shah, MD, FMedSci, Director, King's College London British Heart Foundation Centre of Excellence; BHF Professor of Cardiology & James Black Professor of Medicine, King's College London and King's College Hospital, London, UK

12:00 PM ***Be Prepared for the Worst – A Lesson From Italy***
Giuseppe Remuzzi, MD, Director, Mario Negri Institute for Pharmacological Research, Milan

12:30 ***Research in the Context of Epidemics: WHO's Perspective***
Ana Maria Henao Restrepo, MD, MSc, Unit Lead, R&D Blueprint, WHO Health Emergencies Preparedness & Response, World Health Organization

1:00 **Lunch Hour: A Conversation with Edward Luce**, Chief US Commentator, Financial Times, "An Election Like No Other"

Session 6: Biomarkers of Disease and Drug Response

Chairs: Jason H. Moore, PhD, FACMI, Edward Rose Professor of Informatics; Director, Institute for Biomedical Informatics; Director, Division of Informatics, Department of Biostatistics, Epidemiology, & Informatics; Senior Associate Dean for Informatics, The Perelman School of Medicine, University of Pennsylvania, and **Zoltan Arany, PhD**, Professor of Medicine, Perelman School of Medicine, University of Pennsylvania

2:00 ***The Role of FGF21 in the Exocrine Pancreas Reveals a Potential Treatment for Pancreatitis***

David Mangelsdorf, PhD, Professor, Department of Pharmacology; Investigator, Howard Hughes Medical Institute, University of Texas Southwestern Medical Center

- 2:30 ***Beyond Protein-coding Genes – Role of Long Non-coding RNAs in Cancer Precision Medicine***
Stephanie Huang, PhD, Associate Professor and Associate Director for the Institute of Personalized Medicine, University of Minnesota
- 3:00 ***Moving the Throttle for Retinal Gene Therapy to Pandemic Speed***
Jean Bennett, MD, PhD, F.M. Kirby Professor of Ophthalmology, Perelman School of Medicine, University of Pennsylvania
- 3:30 ***Big Data and Health***
Michael Snyder, PhD, Professor and Chair of Genetics, Stanford School of Medicine
- 4:00 ***Concluding Remarks***
Garret A. FitzGerald, MD, FRS, Director, ITMAT, Perelman School of Medicine, University of Pennsylvania