Symposium Program
as of July 1, 2017, subject to change

Research Symposium - *Epigenetics and Epigenomics: Implications for Diabetes and Obesity*
November 17-19, 2017, Boston Marriott Cambridge Hotel, Cambridge, Massachusetts

**Friday, November 17, 2017**

1:00 p.m. – 1:15 p.m. **Introduction and Welcome**
Chairs: Evan D. Rosen, MD, PhD and Katalin Susztak, MD, PhD

1:15 p.m. – 2:00 p.m. **Keynote Lecture**
Transcriptional regulation of development and differentiation and their effect on disease
John Stamatoyannopoulos, MD, University of Washington, Seattle, Washington

**SESSION I**
**Epigenomics to Understand GWAS**
Chair: Melina Claussnitzer, PhD

2:00 p.m. – 2:30 p.m. **The New Science of Therapeutics**
Jay Bradner, MD, Novartis Institutes for BioMedical Research (NIBR), Cambridge, Massachusetts

2:30 p.m. – 3:00 p.m. **Managing Health & Disease Using Big Data**
Michael Snyder, PhD, Stanford University, Stanford, California

3:00 p.m. – 3:15 p.m. Networking Break

3:15 p.m. – 3:45 p.m. **Understanding GWAS in the Context of Type 2 Diabetes and Its Comorbidities**
Melina Claussnitzer, PhD, Beth Israel Deaconess Medical Center and the Broad Institute of MIT and Harvard, Cambridge, Massachusetts

3:45 p.m. – 4:15 p.m. Enhancers or repressors controlling TCF7L2 and FTO-mouse CRISPR-Cas9
Marcelo A. Nóbrega, PhD, University of Chicago, Chicago, Illinois

4:15 p.m. – 4:45 p.m. **Unravelling Causal Mechanisms for Diabetes Using the Islet Regulome**
Anna L. Gloyn, PhD, University of Oxford, OCDEM, Oxford, United Kingdom

5:00 p.m. – 7:00 p.m. Networking Poster Reception

**Saturday, November 18, 2017**

7:00 a.m. – 7:50 a.m. Networking Breakfast

8:00 a.m. – 8:15 a.m. **Opening Remarks**
Chairs: Evan D. Rosen, MD, PhD and Katalin Susztak, MD, PhD
SESSION II Epigenome to Understand Biology Part 1 (Beta Cell & Periphery)
Chair: Maike Sander, MD

8:15 a.m. – 8:45 a.m.  Epigenetic Adaptation in the Beta Cell
Maike Sander, MD, University of California San Diego, La Jolla, California

8:45 a.m. – 9:15 a.m.  The Dynamic Methylome of Islet Cells in Aging and Diabetes
Klaus H. Kaestner, PhD, University of Pennsylvania Perelman School of Medicine, Philadelphia, Pennsylvania

9:15 a.m. – 9:45 a.m.  Epigenetics of Hepatocytes and Adipocytes
Mitchell A. Lazar, MD, PhD, University of Pennsylvania Perelman School of Medicine, Philadelphia, Pennsylvania

9:45 a.m. – 10:15 a.m.  Epigenomics of Adipose Tissue Biology
Evan D. Rosen, MD, PhD, Beth Israel Deaconess Medical Center, Boston, Massachusetts

10:15 a.m. – 10:45 a.m.  Exercise and epigenetic changes in the skeletal muscle: skeletal muscle insulin signaling (The role of diet and exercise in modifying the epigenetic landscape in Type 2 diabetes)
Romain Barrès, PhD, University of Copenhagen, Denmark

10:45 a.m. – 11:00 a.m.  Networking Break

SESSION III 
Epigenome to Understand Biology Part 2 (Complications and Metabolism)
Chair: Rama Natarajan, PhD, FAHA, FASN

11:00 a.m. – 11:30 a.m.  Epigenetics in Diabetic Kidney Disease
Katalin Susztak, MD, PhD, University of Pennsylvania Perelman School of Medicine, Philadelphia, Pennsylvania

11:30 a.m. – 12:00 pm  Epigenetic Mechanisms in Diabetic Complications and Metabolic Memory
Rama Natarajan, PhD, FAHA, FASN, Beckman Research Institute of City of Hope, Duarte, California

12:00 p.m. – 12:30 p.m.  Epigenetic Dysregulation of the Genome in Obesity
Dustin Schones, PhD, City of Hope, Duarte, California

12:30 p.m. – 2:00 p.m.  Networking Lunch

2:00 p.m. – 2:30 p.m.  Circadian Clock, Nutrient Quality, and Eating Patterns and Their Impact on Diabetes
Satchidananda Panda, PhD, Salk Institute for Biological Studies, La Jolla, California

2:30 p.m. – 3:00 p.m.  Circadian Clock, Epigenetics and Metabolism
Paolo Sassone-Corsi, PhD, University of California, Irvine, California
SESSION IV
Trangenerational Risks and Intergenerational Effects
Chair: Mary-Elizabeth Patti, MD

3:00 p.m. – 3:30 p.m.  Epigenetic Mediators of Intergenerational Metabolic Disease Risk
Mary-Elizabeth Patti, MD, Joslin Diabetes Center, Boston, Massachusetts

3:30 p.m. – 4:00 p.m.  The Black Hole of Fetal Programming and Adult Disease: Identifying the Gaps
Rebecca Simmons, MD, University of Pennsylvania Perelman School of Medicine, Philadelphia, Pennsylvania

4:00 p.m. – 4:15 p.m.  Networking Break

4:15 p.m. – 4:45 p.m.  Variable Silencing of the Repeat Genome – Implications for Non-genetic Inheritance
Anne Ferguson-Smith, PhD, University of Cambridge, Cambridge, United Kingdom

4:45 p.m. – 5:15 p.m.  Controlling Phenotype Variation – Intergenerational Mechanisms
J. Andrew Pospisilik, PhD, Max Planck Institute for Immunobiology & Epigenetics, Freiburg, Germany

5:15 p.m. – 5:45 p.m.  Paternal Effects of Environment on Future Generations
Oliver Rando, MD, PhD, University of Massachusetts Medical School, Worcester, Massachusetts

5:45 p.m. – 7:45 p.m.  Networking Poster Reception

Sunday, November 19, 2017
7:00 a.m. – 7:50 a.m.  Networking Breakfast

8:00 a.m. – 8:15 a.m.  Opening Remarks
Chairs: Evan D. Rosen, MD, PhD and Katalin Susztak, MD, PhD

SESSION V
Developing Epigenetic Therapeutics
Chair: Klaus H. Kaestner, PhD

8:15 a.m. – 8:45 a.m.  Diet-Microbiota Interactions Mediate Global Epigenetic Programming in Multiple Host Tissues
John M. Denu, PhD, University of Wisconsin, Madison, Wisconsin

8:45 a.m. – 9:15 a.m.  Stem Cells, Epigenetic Regulation and Disease Research
Rudolf Jaenisch, MD, Whitehead Institute, Cambridge, Massachusetts

9:15 a.m. – 9:45 a.m.  Targeting the Epigenome for Therapy
Peter A. Jones, PhD, DSc, Van Andel Research Institute, Grand Rapids, Michigan

9:45 a.m. – 10:00 a.m.  Networking Break
10:00 a.m. – 11:30 a.m.  
**SESSION VI: Needs and Future Questions**  
**Chairs: Evan D. Rosen, MD, PhD and Katalin Susztak, MD, PhD**

Interactive Panel and Audience Discussion on Unmet and Future Needs*

*Outcomes from the discussion during Session VI will be published, and we encourage participation from Symposium attendees to provide input during this session.