

Tuesday, October 23, 2018

8:30 AM **REGISTRATION AND COMPLIMENTARY BREAKFAST**

9:00 AM Introduction: **Susan L. Solomon, JD** – The NYSCF Research Institute

9:05 AM Welcome Remarks: **Richard Lifton, MD, PhD** – The Rockefeller University

OPENING LECTURE

9:10 AM **Feng Zhang, PhD** – Broad Institute of MIT and Harvard

TISSUE RENEWAL AND REGENERATION

Chair: **Shahin Rafii, MD** – Weill Cornell Medical College

9:35 AM **Mayumi Ito, PhD** – New York University School of Medicine
Hair follicle neogenesis in adult skin

10:00 AM **Noriyuki Tsumaki, MD, PhD** – Kyoto University
Application of iPS cells to regenerate articular cartilage damage and model skeletal dysplasia

10:25 AM – 10:50 AM BREAK

RECAPITULATING DISEASE IN A DISH

Sponsored by: STEMCELL Technologies

Chair: **Ruth Lehmann, PhD** – New York University School of Medicine

10:50 AM **Gordana Vunjak-Novakovic, PhD** – Columbia University
Human microphysiological tissue platforms

11:15 AM **Shuibing Chen, PhD** – Weill Cornell Medical College
NYSCF – Robertson Investigator Alumna
A human pluripotent stem cell-based platform to evaluate the role of genetic and environmental factors in diabetes progression

11:40 AM **Stephen Waxman, MD, PhD** – Yale University School of Medicine
“Pain-in-a-dish” en route to the clinic: iPSC- and other cell-based models as a prelude to first-in-human clinical studies

12:05 PM **Joseph Wu, MD, PhD** – Stanford University School of Medicine
Stem cells and genomics for precision cardiovascular medicine

NYSCF CONFERENCE

October 23 & 24, 2018

Casparry Auditorium
The Rockefeller University

12:30 – 2:00 PM COMPLIMENTARY LUNCH

Sponsored by: NYCEDC

KEYNOTE ADDRESS

Chair: **Susan L. Solomon, JD** – The NYSCF Research Institute

2:00 PM **Francis S. Collins, MD, PhD** – National Institutes of Health

2:40 PM **Fireside Conversation**

3:00 – 3:30 PM BREAK

BLOOD, IMMUNOLOGY, AND CANCER

Chair: **Emmanuelle Passegué, PhD** – Columbia University Medical Center

3:30 PM **Michel Sadelain, MD, PhD** – Memorial Sloan Kettering Cancer Center
CAR T cells: from synthetic receptors to synthetic cells

3:55 PM **Jeffrey Bluestone, PhD** – University of California, San Francisco
Treg biology to understand and treat disease

4:20 PM **Kateri Moore, DVM** – Icahn School of Medicine at Mount Sinai
Programming hematopoiesis

4:45 PM **Ulrich Steidl, MD, PhD** – Albert Einstein College of Medicine
Targeting the stem cell origins of MDS and AML

POSTER SESSION

5:10 – 7:00 PM

Wednesday, October 24, 2018

8:30 AM REGISTRATION AND COMPLIMENTARY BREAKFAST

9:00 AM Introduction: **Susan L. Solomon, JD** – The NYSCF Research Institute

NEURODEGENERATION AND THE BRAIN

Chair: **Eric Nestler, MD, PhD** – Icahn School of Medicine at Mount Sinai

9:10 AM **Paola Arlotta, PhD** – Harvard University
NYSCF – Robertson Investigator Alumna
Understanding human brain development and disease: from the embryo to brain organoids

9:35 AM **Stefano Pluchino, MD, PhD** – University of Cambridge
Signaling properties of neural stem cells and their cargo vesicles

10:00 AM **Jeffrey Rothstein, MD, PhD** – Johns Hopkins University
Precision brain health: answer ALS is a population based multi-omics program to identify ALS subgroups, biomarkers and druggable pathways

10:25 – 11:00 AM BREAK

STEM CELL APPLICATIONS IN THERAPEUTICS

11:00 AM **Richard M. Eglén, PhD** – Corning
Advances in three-dimensional cell culture for research, drug discovery, and biologic manufacture

11:20 AM **Uma Lakshmi Pathy, PhD** – Thermo Fisher Scientific
Generation of iPSC with integrated methods for comprehensive characterization designed for clinical and translational research

11:40 AM **Philip Nelson** – Google
Accelerating life sciences discovery with machine learning

12:00 – 1:30 PM COMPLIMENTARY LUNCH

Sponsored by: NYCEDC

RESOLVING DISEASE GENETICS USING STEM CELLS

Chair and Moderator: **Kristen Brennand, PhD** -- Icahn School of Medicine at Mount Sinai

- 1:30 PM **Kevin Eggan, PhD** – Harvard University
Reducing noise and bias from studies of disease-implicated genetic variation through massively-mosaic stem cell systems
- 1:40 PM **Kelly Frazer, PhD** – University of California, San Diego
Integrated large-scale study identifies non-genetic inherent differences across iPSC lines that impact cardiac lineage cell fate determination
- 1:50 PM **Scott Noggle, PhD** – The NYSCF Research Institute
iPSC technology to elucidate the genetic basis of neurodegenerative disease
- 2:00 PM **Panel discussion**

SHORT TALKS SELECTED FROM ABSTRACTS

- 2:40 PM **Raphael Lis, PhD** – Weill Cornell Medical College
NYSCF – Druckenmiller Fellowship Alumnus
There will be blood – generating hematopoietic stem cells from adult endothelial cells
- 2:50 PM **David Hay, PhD** – University of Edinburgh
Supporting mammalian liver function with tissue derived from human pluripotent stem cells
- 3:00 PM **Janelle Drouin-Ouellet, PhD** – University of Montreal
Can directly induced neurons derived from patients be useful to study sporadic Parkinson's disease?

3:15 – 3:45 PM BREAK

SPECIAL PRESENTATION

Chair: **Susan L. Solomon, JD** – The NYSCF Research Institute

- 3:45 PM **Peter Marks, MD, PhD** – Food and Drug Administration (FDA)
FDA's Efforts to Advance the Development of Stem Cell Therapies

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EXPRESSWAY TO THE CLINIC

Chair: **Malin Parmar, PhD** – Lund University
NYSCF – Robertson Stem Cell Investigator

4:20 PM **Lorenz Studer, MD** – Memorial Sloan Kettering Cancer Center
Towards a pluripotent-based cell therapy for Parkinson's disease

4:45 PM **Kapil Bharti, PhD** – National Eye Institute
National Institutes of Health
Autologous iPS cell therapy for macular degeneration: from bench-to-bedside

CLOSING REMARKS

5:10 PM