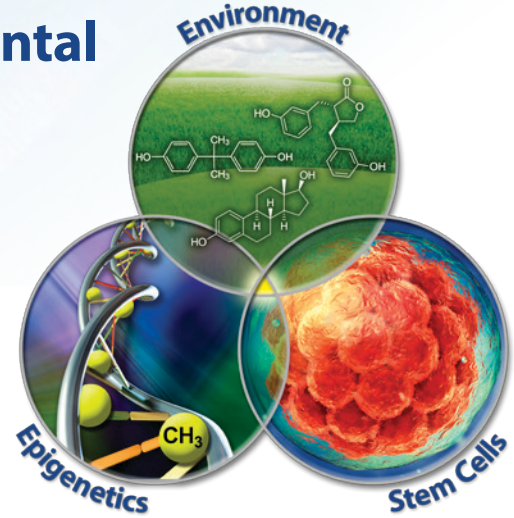
National Institute of Environmental Health Sciences

Epigenetics, Stem Cells, and Environmental Health Symposium and Workshop

June 1-2, 2017

NIEHS Building 101, Rodbell Auditorium
111 TW Alexander Drive, Research Triangle Park, N.C.



Day 1 – June 1, 2017

8:00 – 8:30 a.m. **Registration**

8:30 – 8:40 a.m. **Welcome and Opening Remarks**
Darryl Zeldin, M.D., NIEHS

8:40 – 10:40 a.m. **SESSION 1: Pluripotent Stem Cells**
Session Chair: Jill Dowen, Ph.D., University of North Carolina at Chapel Hill

Ge Guo, Ph.D., Wellcome Trust Centre for Stem Cell Research, University of Cambridge
Generation and Characterization of Human Naïve Pluripotent Stem Cells

Guang Hu, Ph.D., NIEHS
Post-Transcriptional Regulation of the Pluripotent State

Thomas Zwaka, M.D., Ph.D., Icahn School of Medicine at Mount Sinai
Ronin's Role in Creating Regulatory DNA Structures: Blurring the Distinction Between Enhancers and Promoters

Konrad Hochedlinger, Ph.D., Harvard Stem Cell Institute
DUSP9 Modulates DNA Hypomethylation in Female Mouse Pluripotent Stem Cells

10:40 – 11:00 a.m. **Break**

11:00 a.m. – 12:30 p.m. **SESSION 2: Stem Cells and Development**
Session Chair: Guang Hu, Ph.D., NIEHS

Max Wicha, M.D., University of Michigan
Breast Cancer Stem Cell States and the Tumor Microenvironment

Iannis Aifantis, Ph.D., New York University
Long Non-Coding RNA-Mediated Gene Transcription in Hematopoiesis and Leukemia

Amander Clark, Ph.D., University of California, Los Angeles
Protecting DNA Methylation in Naïve and Primed Human Pluripotent Stem Cells

12:30 – 1:30 p.m. **Lunch**

1:30 – 3:00 p.m. **SESSION 3: Chromatin Biology**
Session Chair: Raja Jothi, Ph.D., NIEHS

Gerald Crabtree, M.D., Stanford University
Chromatin Remodeling: Insights From the Genetics of Human Disease and New Methods

Robert Kingston, Ph.D., Massachusetts General Hospital
Nucleosome Compaction as a Regulatory Mechanism During Development

Ali Shilatifard, Ph.D., Northwestern University
Principles of Epigenetics and Chromatin in Development and Human Disease

3:00 – 5:00 p.m. **POSTER SESSION**

Day 2 – June 2, 2017

8:00 – 8:30 a.m. **Registration**

8:30 – 10:00 a.m. **SESSION 4: Transcriptional Control**
Session Chair: Paul Wade, Ph.D., NIEHS

Karen Adelman, Ph.D., Harvard University
Making Sense of Non-Coding Transcription

Ramin Shiekhattar, Ph.D., University of Miami
Integrator in MAPK Signaling and Cancer

Raja Jothi, Ph.D., NIEHS
Transcription at Intragenic Enhancers Attenuates Gene Expression

10:00 – 10:20 a.m. **Break**

10:20 – 11:50 a.m. **SESSION 5: Epigenetic Regulation**
Session Chair: Eda Yildirim, Ph.D., Duke University

Kai Ge, Ph.D., National Institute of Diabetes and Digestive and Kidney Diseases
Enhancer Chromatin Modification in Differentiation, Development, and Cancer

Anjana Rao, Ph.D., La Jolla Institute
Epigenetic and Transcriptional Programs in T Cells During Anti-Viral and Anti-Cancer Responses

Sundeep Kalantry, Ph.D., University of Michigan
The Orchestration of X-Chromosome Inactivation

11:50 a.m. – 1:00 p.m. **Lunch**

1:00 – 3:00 p.m. **SESSION 6: Stem Cells and Environment**
Session Chair: Erik Tokar, Ph.D., NIEHS

Alvaro Puga, Ph.D., University of Cincinnati
Ah Receptor-Mediated Disruption of the Cardiac Embryogenesis Program

Dave Sherr, Ph.D., Boston University
The Role of the AHR in Development of Cancer-Associated and Tissue-Specific Stem Cells

Thea Tlsty, Ph.D., University of California, San Francisco
Stress Signaling and Novel Entry to Activation of Sox2, Oct3/4, Nanog, and Cellular Plasticity in Rare Human Somatic Cells

Hugh Taylor, M.D., Yale University
Endometrial Stem Cells Derived From Bone Marrow, Epigenetic Programming, and the Effect of Endocrine Disruption

3:00 – 3:20 p.m. **Break**

3:20 – 5:00 p.m. **WORKSHOP: Future Directions and Outcomes**

5:00 – 5:10 p.m. **Closing Remarks**