



NIH Roadmap for Medical Research



Emerging Evidence for Epigenomic Changes in Human Disease

Natcher Conference Center
National Institutes of Health
Bethesda, MD

March 16 - 17, 2009

Agenda

Day One – Monday, March 16, 2009

8:00 – 9:00 a.m.

Registration

9:00 – 10:20 a.m.

Session 1 – Epigenomics: What Is It?

Welcome and Overview of the Meeting

Nora Volkow, M.D.

Director

National Institute on Drug Abuse

*Epigenetic Mechanisms in Model Organisms and Their Relevance
for Disease*

Robert Martienssen, Ph.D.

Cold Spring Harbor Laboratory

NIH Roadmap Epigenomics Program: Why and How?

John Satterlee, Ph.D.

National Institute on Drug Abuse

10:20 – 10:40 a.m.

Break

10:40 a.m. – 12:30 p.m.

Session 2 – Epigenomic Mapping in Normal and Diseased Cells

Chair: Frederick Tyson, Ph.D.

National Institute of Environmental Health Sciences

Toward a Comprehensive View of the Human Epigenome in Health and Disease

Bradley Bernstein, M.D., Ph.D.

Massachusetts General Hospital/Broad Institute

Chromatin Signatures of Transcriptional Enhancers

Bing Ren, Ph.D.

University of California, San Diego

Chromatin Programming of Cellular Identity and Proliferation

John Stamatoyannopoulos, M.D.

University of Washington

12:30 – 1:40 p.m.

Lunch – On Own

1:40 – 3:35 p.m.

Session 3 – Epigenetics, Environmental Exposures, and Contributions to Disease

Chair: Kimberly McAllister, Ph.D.

National Institute of Environmental Health Sciences

In Utero Exposures and the Fetal Primate Epigenome

Kjersti Aagaard-Tillery, M.D., Ph.D.

Baylor College of Medicine

Targeted Proteomic Approaches to Studying Viral Infections

Ileana Cristea, Ph.D.

Princeton University

Epigenetic Transgenerational Actions of Endocrine Disruptors on Reproduction and Disease: The Ghost in Your Genes

Mike Skinner, Ph.D.

Washington State University

Epigenetics, the Socio-Economic Environment and Human Health

Moshe Szyf, Ph.D.

McGill University

Lightning Talk: An Epigenetic Role for Nicotine in Patterns of Drug Use Leading to Addiction?

Amir Levine, M.D.

Columbia University

3:35 – 3:55 p.m.

Break

3:55 – 5:10 p.m.

Session 4 – Epigenetics and Disease

Chair: Philip Smith, Ph.D.

National Institute of Diabetes and Digestive and Kidney
Diseases

Epigenetics, Aging, and Cancer: Pathways and Players

Manel Esteller, M.D., Ph.D.

Cancer Epigenetics Group

Spanish National Cancer Center

Madrid, Spain

*Epigenetic Regulation of the H19 and Igf2 Locus in Mouse and
Human*

Marisa Bartolomei, Ph.D.

University of Pennsylvania

School of Medicine

A Novel Epigenetic Mark on the Mammalian Genome

Nat Heintz, Ph.D.

Rockefeller University

5:10 – 6:30 p.m.

**Poster Session: Epigenetics and Epigenomics of
Human Diseases**

Day Two – Tuesday, March 17, 2009

8:00 – 9:00 a.m.

Registration

9:00 – 9:55 a.m.

Session 4 – Epigenetics and Disease (Continued)

Chair: Pothur Srinivas, Ph.D., M.P.H.
National Heart, Lung, and Blood Institute

Epigenetics and Autism: What's the Connection?
Janine LaSalle, Ph.D.
University of California, Davis

*Epigenetic Control of Differentiation of Vascular Smooth Muscle
Cells in Development and Disease*
Gary Owens, Ph.D.
University of Virginia

9:55 a.m. – 12:00 p.m.

**Session 5 – The Potential for Epigenetic Diagnosis
and Therapy**

Chair: Mukesh Verma, Ph.D.
National Cancer Institute

*Chromatin Remodeling Associated Memory Formation in Health
and Disease*
Li-Huei Tsai, Ph.D.
Massachusetts Institute of Technology
Broad Institute

10:20 – 10:40 a.m.

Break

*The Emerging Role of Epigenetically Targeted Drugs in
Hematologic Malignancy*
Steven Gore, M.D.
Johns Hopkins University

*Histone Hypoacetylation in Inherited Glycosylphosphatidylinositol
Deficiency*
Anastasios Karadimitris, M.D., Ph.D.
Imperial College London
London, England

Lightning Talk: *MECP2, Genetic-Epigenetic Synergy in the Pathogenesis of Systemic Lupus Erythematosus*

Amr H. Sawalha, M.D.

Oklahoma Medical Research Foundation

Lightning Talk: *The Epigenome of Olfactory Receptor Genes*

Stavros Lomvardas, Ph.D.

University of California, San Francisco

12:00 – 1:10 p.m.

Lunch – On Own

1:10 – 2:25 p.m.

Session 6 – Integrating Epigenomics with Genetic and Epidemiological Studies

***Chair:* Andrea Beckel-Mitchener, Ph.D.**

National Institute of Mental Health

Allele-specific Epigenomics

Andrew Chess, M.D.

Massachusetts General Hospital

mRNA Expression in Human Brain Autopsy Tissues from Cocaine Overdose and Control Subjects: Interplay Between Genetic and Epigenetic Factors

Wolfgang Sadec, Dr.rer.nat.

The Ohio State University

Integrating Epigenomics into an Epidemiological Framework

Danielle Fallin, Ph.D.

Johns Hopkins University

2:25 – 2:45 p.m.

Break

2:45 - 5:30 p.m.

Session 7 - International and US Epigenetics Programs: Progress and Opportunities

***Chair:* Christine Colvis, Ph.D.**

National Institute on Drug Abuse

Large-Scale Epigenomics Efforts in Europe

Jacques Remacle, Ph.D.

European Commission

Brussels, Belgium

*Past Achievements, Current Trends, and Future Emphases of
Epigenetics/Epigenomics Research in Japan*

Toshikazu Ushijima, M.D., Ph.D.

National Cancer Center Research Institute

Tokyo, Japan

*The Past and Future of AHEAD (Alliance for the Human
Epigenome and Disease)*

Peter A. Jones, Ph.D., D.Sc.

**University of Southern California/Norris Comprehensive
Cancer Center**

Los Angeles, California

Korean Efforts in Epigenetics

Young-Joon Kim, Dr. P.H.

Yonsei University

Seoul, Korea

4:05 – 4:25 p.m.

Break

Emerging Topics in Computational Epigenomics

Paul Flicek, D. Sc.

European Bioinformatics Institute

Wellcome Trust Genome Campus

Cambridge, United Kingdom

*Singapore's Infrastructure and Network of Investigators in
Epigenomics Research.*

Huck Hui Ng, Ph.D.

Genome Institute of Singapore

Singapore, Singapore

ENCODE: The Encyclopedia of DNA Elements

Elise Feingold, Ph.D.

National Human Genome Research Institute

Bethesda, Maryland

5:30 p.m.

Adjournment