



NCI Symposium on
Chromosome Structure and Function
Natcher Auditorium, NIH, Bethesda, MD
November 1-2, 2011

Tuesday, November 1, 2011

7:30 a.m. Registration

8:30 a.m. **Welcome and Tribute to Dr. Jonathan Widom**
Gordon Hager, Ph.D., Head of the CECB, National Cancer Institute
Barbara Wold, Ph.D., Director of the Center for Cancer Genomics, National Cancer Institute

SESSION 1: SINGLE MOLECULE APPROACHES TO CHROMATIN STRUCTURE

8:45 a.m. **“TBA”**
Carlos Bustamante, Ph.D., University of California, Berkeley

9:15 a.m. **“Single Molecule Imaging of Protein-DNA Interactions Using DNA Curtains”**
Eric Greene, Ph.D., Columbia University

9:45 a.m. **“The Dynamics of Accessing DNA”**
Michelle Wang, Ph.D., Cornell University

10:15 a.m. Break

SESSION 2: CHROMATIN IN HUMAN SYSTEMS

10:45 a.m. **“Molecular Linkages Between Chromatin and Cellular Metabolism in the Transcriptional Control of DNA Repair in Breast Cancer”**
Kevin Gardner, M.D., Ph.D., National Cancer Institute

11:15 a.m. **“Chromatin Exchange During Interferon Stimulated Transcription”**
Keiko Ozato, Ph.D., National Institute of Child Health and Human Development

11:45 p.m. **“Linking Nuclear DNA Damage and Epigenetic Changes to Stem-Cell Decline During Aging”**
Andre Nussenzweig, Ph.D., National Cancer Institute

12:15 p.m. **LUNCH BREAK AND POSTER VIEWING**

SESSION 3: TRANSCRIPTION FROM CHROMATIN

- 2:00 p.m. **“Potentiating Signal-Responsive Transcription: A Dynamic Dance Between Paused Polymerase and Chromatin”**
Karen Adelman, Ph.D., National Institute of Environmental Health Sciences
- 2:30 p.m. **“Noncoding RNAs Regulate the Epigenetic State of rRNA Genes”**
Ingrid Grummt, Ph.D., German Cancer Research Center
- 3:00 p.m. **“Activator Induced Spread of Poly (ADP-Ribose) Polymerase Promotes Nucleosome Loss at HSP90”**
John Lis, Ph.D., Cornell University
- 3:30 p.m. Break

SESSION 4: CHROMATIN DOMAINS

- 3:50 p.m. **“Translating Internucleosomal Interactions into Higher-Order Structures in Interphase Chromatin and Metaphase Chromosomes”**
Sergei Grigoryev, Ph.D., Penn State University
- 4:20 p.m. **“Chromatin Domains and the Epigenetic Regulation of Gene Expression”**
Gary Felsenfeld, Ph.D., National Institute of Diabetes and Digestive and Kidney Diseases
- 4:50 p.m. **“Studies on tRNA Gene Insulators in Yeast and Human Cells”**
Rohinton Kamakaka, Ph.D., University of California, Santa Cruz
- 5:20 p.m. **“Functional Organization of Chromatin Over Long Distances”**
Ann Dean, Ph.D., National Institute of Diabetes and Digestive and Kidney Diseases
- 5:50 p.m. Adjourn

Wednesday, November 2, 2011

SESSION 5: CHROMATIN REMODELING

- 8:30 a.m. **“Regulation of Chromatin Remodeling”**
Brad Cairns, Ph.D., University of Utah
- 9:00 a.m. **“Mechanisms of Gene Regulation Over a Distance on DNA and in Chromatin”**
Vasily Studitsky, Ph.D., University of Medicine and Dentistry, New Jersey
- 9:30 a.m. **“Structural Transitions in Chromatin”**
Karolin Luger, Ph.D., Colorado State University
- 10:00 a.m. Break

10:30 a.m. **“Regulation of ATP-Dependent Chromatin Remodeling”**
 Blaine Bartholomew, Ph.D., Southern Illinois University

SESSION 6: NUCLEOSOME ORGANIZATION

11:00 a.m. **“Genomic Organization of Chromatin and the Transcription Machinery”**
 Frank Pugh, Ph.D., Penn State University

11:30 a.m. **“Epigenetic Landscapes in Liver: From Early Development to Liver Cancer”**
 Klaus Kaestner, Ph.D., University of Pennsylvania

12:00 p.m. **LUNCH BREAK AND POSTER SESSION**

1:30 p.m. **“Genome-Wide Nucleosome Organization”**
 Arend Sidow, Ph.D., Stanford University

2:00 p.m. **“Perfect and Imperfect Nucleosome Positioning in Yeast”**
 David Clark, Ph.D., National Institute of Child Health and Human Development

SESSION 7: CHROMATIN STRUCTURE AND ORGANIZATION

2:30 p.m. **“Cyclical Nature of CENP-A Nucleosomal Structure In Vivo”**
 Yamini Dalal, Ph.D., National Cancer Institute

3:00 p.m. Break

3:15 p.m. **“Human Artificial Chromosome (HAC) for Kinetochores Studies and Correction of Genetic Deficiencies in Human Cells”**
 Vladimir Larionov, Ph.D., National Cancer Institute

3:45 p.m. **“Rebooting and Programming Centromeres”**
 Robin Allshire, Ph.D., University of Edinburgh

4:15 p.m. **“Biochemistry of Histone Variant CenH3 at Budding Yeast Centromeres”**
 Carl Wu, Ph.D., National Cancer Institute

4:45 p.m. Adjourn