

*SCIENTIFIC PROGRAM*

**27<sup>th</sup> Annual Asilomar Chromatin & Chromosomes Conference**

**December 8-11, 2005  
Asilomar Conference Grounds**



**ALL SPEAKERS:**

***\*\*Plan for a 12 minute presentation + 3 additional minutes for questions\*\****

**! PLUS !**

**Please remember to bring a floppy disk with your abstract  
for publication in a special issue of BIOCHEMISTRY AND CELL BIOLOGY**

**Updated 12/07/05**

## Opening Social:

**Thursday, December 8<sup>th</sup>, 2005: 4:30 pm – 6:00 pm**

**(ask for the location at the front desk when you check in)**

Note: Soft drinks, beer, wine, and snacks will be served in the meeting room by Asilomar personnel from **5-6 pm on Friday and Saturday nights**, and from **9-11 pm on Thursday-Saturday nights**.

## *Schedule of Talks*

**Thursday, December 8, 2005: 7:00 pm – 10:00 pm**

**7:00 - 7:15 pm**

Welcome!

**7:15 -7:45 pm**

*Food for thought:*

**Jeff Hansen**

Colorado State University

Amino acid composition, intrinsic protein disorder, and the histone terminal domains

**7:45–10:00 pm**

## **CHROMATIN STRUCTURE**

David Brown, Chairperson

David Brown

University of Mississippi Medical Center

Mapping the interaction surface of the linker histone H1 with the nucleosomes of native chromatin in vivo

Jose Maria Eirin-Lopez

University of Victoria

Histone H1, Function and Distribution in Chromatin: A Molecular Evolution Perspective

Xiadong Wang

University of Rochester

Using a chemical method to monitor the salt-dependent binding of the H2B N-terminal tail in a nucleosome core

**-- 15 min break --**

Sergei Grigoryev  
Penn State University College of Medicine  
Polymeric scaffold for tertiary chromatin structure: implications for ultrastructural, biochemical, and x-ray studies of MENT

Joseph Siino  
University of California, Davis  
Direct observation of nucleosomes on individual DNA molecules by fluorescence microscopy

Anita A. Thambirajah  
University of Victoria  
Characterization of native H2A.Z-containing structures

**Friday, December 9, 2005: 9:00 am – 12:00 noon**

**NUCLEAR FUNCTIONS**  
Sergei Grigoryev, Chairperson

Jocelyn E. Krebs  
University of Alaska, Anchorage  
Involvement of histone H2A in multiple stress-response pathways

Concetta GA Marfella  
UMass Medical School  
The role of chromodomain helicase DNA binding protein 2 (Chd2) in mammalian development

Dan Yellajoshiyula  
University of Mississippi Medical Center  
Changes in H1-core histone interactions during differentiation of murine erythroleukemia cells

Oya Yazgan  
University of Alaska, Anchorage  
Autoregulation of the *CUP1* gene in *S. cerevisiae*

Gordon Chan  
University of Alberta  
Regulation of cell cycle-specific centromere dynamics

**-- 20 min break --**

Tammy Wu  
San Francisco State University  
The role of a *C. elegans* sperm-specific H2A variant in fertility

Grant Hartzog  
University of California, Santa Cruz  
Connecting transcription elongation, chromatin and RNA processing

Rohinton Kamakaka  
NIH  
The boundaries of silenced chromatin

Fina Martinez Soler  
University of Victoria  
Chromatin condensation and changes in protein composition in the spermatic nucleus of the cephalopod,  
*Sepia officinalis*

Charles D. Laird  
University of Washington  
Is the rate of maintenance methylation similar to that on hypermethylated alleles?

**Friday, December 9, 2005: 7:00 pm – 7:30 pm**

Future Changes in the Asilomar Chromatin & Chromosomes Conference  
*(discussion led by J. Hansen & M. Goldman)*

**Friday, December 9, 2005: 7:30 pm – 10:00 pm**

**CHROMATIN MODIFICATIONS**

Rohinton Kamakaka, Chairperson

Anthony T. Annunziato  
Boston College  
Histone modifications and histone complexes during chromatin assembly

Caroline Dacwag  
UMass Medical School  
A role for arginine methylation in muscle differentiation

Ren Xu  
Lawrence Berkeley National Laboratory  
SWI/SNF, histone acetylation, and transcription factors cooperatively regulate functional differentiation  
in epithelial cells

**-- 20 min break --**

Ray Green  
Mercer University  
Analysis of histone modification sites in proteins eluted from fixed and stained high-resolution 2-D  
polyacrylamide gels

Ryan Heit  
Cross Cancer Institute  
Connections between histone modifications and mitotic defects as shown through adenosine dialdehyde treatments

Shannon Uffenbeck  
University of Alaska, Anchorage  
H2A tail modifications in transcriptional regulation of heat shock protein

Andra Li  
University of Victoria  
H2AX: more phosphorylation than meets the eye

Anoushe Sekhavat  
Manitoba Institute of Cell Biology  
Mechanism of histone deacetylase inhibition by various inhibitors

**Saturday, December 10, 2005: 9:00 am – 12:00 noon**

**CHROMATIN-ASSOCIATED PROTEINS**

Jocelyn Krebs, Chairperson

Andrei Alexeev  
University of California, Davis  
Rad54 protein mediates DNA pairing within chromatin

Dennis Bua  
San Francisco State University  
Interactions between Cdc24 and DNA lagging strand synthesis machinery: Cdc17 (DNA ligase I homolog) and Rad2 (FEN-1 homolog) in *S. pombe*

David Clark  
National Institute of Child Health and Human Development  
The DNA-binding domain of yeast Spt10 is homologous to Foamy Virus integrase

Jim Davie  
Manitoba Institute of Cell Biology  
HDAC2 isoforms and association with chromatin

John Th'ng  
Northwestern Ontario Regional Cancer Centre  
Phosphorylation-regulated binding of histone H1s in ras-transformed cells

**--20 min break--**

Bojan Drohic  
University of Manitoba/Manitoba Institute of Cell Biology  
Functional characterization of histone H3 kinases, MSK1 and MSK2

Wolfgang Hennig  
Chinese Academy of Sciences  
Developmental effects of an E2F1 mutant in *Drosophila*

Cotteka Johnson  
Marshall University  
Characterization of Sir3p DNA binding properties

Nicholas Adkins  
Marshall University  
Tail-dependent compaction of nucleosomal arrays by MeCP2

**Saturday, December 10, 2005: 7:00 pm – 9:30 pm**

**CHROMATIN REMODELING AND REGULATION**

Mike Kladde, Chairperson

Mike Kladde  
Texas A&M University  
Probabilistic chromatin remodeling at the induced *PHO5* promoter: lessons from a novel single-molecule approach

Yongli Zhang  
University of California, Berkeley  
DNA translocation mechanism of chromatin remodelling revealed by single-molecule studies

Ralph C. Bash  
Arizona State University  
Tracking histones during remodeling with recognition imaging

David Hill  
UMass Medical School  
The role of HMGN1 in SWI/SNF remodeling and cellular differentiation

**--20 min break--**

Michael J. Hendzel  
University of Alberta  
Nuclear polymeric actin and its role in chromatin modification and double strand break repair

Tony Imbalzano  
UMass Medical School  
Analysis of chromatin remodeling in embryonic tissues: how skeletal muscle is specified

Zhe Liu  
UT Southwestern Medical Center  
Mechanism of activation and silencing of the immunoglobulin kappa locus through DNA looping and nuclear repositioning

Di Kim Nguyen  
University of Washington  
Dosage compensation of the active X chromosome in mammals

**Sunday, December 11, 2005: 9:30 am – 11:00 am**

**CHROMATIN AND DISEASE**

Mike. Hendzel, Chair

Stephanie Namciu  
Fred Hutchinson Cancer Center  
The role of MARS in chromosomal translocations in treatment-related leukemia

Joel Gottesfeld  
The Scripps Research Institute  
Small molecule therapeutics for a chromatin disease

Melissa Conerly  
FHCRC/UW  
Early detection of cancer using modified histones as blood-borne biomarkers

Keith Luhrs  
Peregine Pharmaceuticals  
The Evolution of Histone Antibodies into Cancer Therapeutics Part III: Establishing Histone Antibodies as a Carrier Platform for Therapeutics and Diagnostics

Missag Parseghian  
Peregine Pharmaceuticals  
The Evolution of Histone Antibodies into Cancer Therapeutics Part IV: Vasopermeation Enhancement Agents as a Case Study for Histone Antibody-Based Therapies