



**2006 FASEB Summer Research Conferences
Biological Methylation
June 24-29
Vermont Academy, Saxtons River, Vermont**

Co-Organizers:

Norbert O. Reich

University of California
Santa Barbara, California

Catherine F. Clarke

University of California
Los Angeles, California

Saturday, June 24, 2006

2:00p.m. – 12:00midnight	Conference Registration
6:00p.m. – 7:30p.m.	FASEB Opening Reception
7:30p.m. – 9:00p.m.	Dinner

Sunday, June 25, 2006

7:30a.m. – 9:00a.m.	Breakfast
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Session Chairs and Speakers are all confirmed

Session 1: 9:00a.m. – 12:30p.m

Greasy Methyltransferases

Dennis E. Vance, University of Alberta

9:00a.m. - 9:45a.m.

René Jacobs, University of Alberta

"Phospholipid methylation and homocysteine secretion"

9:45a.m. – 10:30a.m.

W. David Nes, Texas Tech University

"Enzymology and evolution of sterol methyltransferase"

10:30a.m. – 10:45a.m.

FASEB Sponsored Coffee Break

10:45a.m. – 11:30a.m.

Christine Hrycyna, Purdue University

"Isoprenylcysteine Carboxymethyltransferases: Molecular mechanisms and the development of inhibitors"

11:30a.m. – 12:15p.m

Stephen Young, University of California, Los Angeles

"Post-translational processing of pre-laminA"

12:15p.m. – 12:30p.m.

Group Photo

12:30p.m. – 1:30p.m.

Lunch

Free Afternoon

	4:00p.m. – 5:45p.m.	Poster Session
	6:00p.m. – 7:00p.m.	Dinner
Session 2:	7:00p.m. – 10:15p.m.	Methyltransferase Structure and Therapeutics Xiaodong Cheng, Emory University, Atlanta
	7:00p.m. – 7:30p.m.	Xiaodong Cheng , Emory University, Atlanta <i>"Structural studies of DAM methylation"</i>
	7:30p.m. – 8:00p.m.	Ian Cushman , Duke University, Durham <i>"The role of Icm1-catalyzed methylation in Rho signaling and cancer"</i>
	8:00p.m. – 8:30p.m.	Tom Lee , UCSF (short talk) An <i>"RNA Fold With Multiple Roles In The Reaction Of RNA 5-Methyluridine Methyltransferase"</i>
	8:30p.m. – 8:45p.m.	Coffee Break
	8:45p.m. – 9:15p.m.	Gunter Schneider , Karolinska Institute, Stockholm <i>"Evolution of a methyltransferase into an AdoMet dependent hydroxylase"</i>
	9:15p.m. – 9:45p.m.	Ray C. Trievel , University of Michigan, Ann Arbor, MI <i>"Structural basis of substrate recognition by SET domain methyltransferases"</i>
	9:45p.m. – 10:15p.m.	Osamu Nureki , Department of Biological Information, Graduate School of Bioscience and Biotechnology, Tokyo Institute of Technology <i>"Structural insight into the functional modulation by RNA methylation(modification)"</i>

Monday, June 26, 2006

	7:30a.m. – 9:00a.m.	Breakfast
Session 3:	9:00a.m. – 12:15p.m.	Human Genetic Diseases that Affect Synthesis and Degradation of AdoMet James Finkelstein, George Washington University
	9:00a.m. - 9:45a.m.	James Finkelstein , George Washington University <i>"Deficiencies in human S-Adenosylhomocysteine hydrolase"</i>
	9:45a.m. – 10:30a.m.	Zigmund Luka , Vanderbilt University <i>"Glycine N-methyltransferase: a major enzyme in the utilization of S-adenosylmethionine"</i>
	10:30a.m. – 10:45a.m.	FASEB Sponsored Coffee Break
	10:45a.m. – 11:30a.m.	Fernando Corrales , Applied Medical Research Foundation (FIMA) <i>"Liver proteome alterations induced by a chronic deficiency of AdoMet: Identification of proteins associated with liver diseases"</i>
	11:30a.m. – 12:15p.m.	Jose Mato , Technological Park of Bizkaia Spain <i>"Regulation of liver regeneration by S-adenosylmethionine"</i>

	12:15p.m. – 1:15p.m.	Lunch
	2:00p.m. – 4:00p.m.	Minisymposium A: Recent advances in AdoMet metabolism and protein methylation Jose Mato , Chair, Technological Park of Bizkaia Spain
	2:00p.m. – 2:20p.m.	Xia Peng , Concordia University <i>"Regulation of methionine biosynthesis in E. coli by AdoMet"</i>
	2:20p.m. – 2:40p.m.	Colin M. Oliver , Roswell Park Cancer Institute, SUNY <i>"A novel AdoMet-derived intercellular signal molecule produced by human cancer cells"</i>
	2:40p.m. – 3:00p.m.	Jocelyn Côté , University of Ottawa <i>"A role for arginine methylation in spinal muscular atrophy "</i>
	3:00p.m. – 3:20p.m.	Joan M. Hevel , Utah State University <i>"Investigation of the substrate specificity and kinetic mechanism of the most predominant protein arginine methyltransferase, PRMT1"</i>
	3:20p.m. – 3:40p.m.	Michelle A. Soriano , Harvard School of Public Health <i>"Regulation of cytokine signaling by post-translational modifications of STATs"</i>
	3:40p.m. – 4:00p.m.	Michael C. Yu , Harvard Medical School <i>"The role of protein arginine methylation in the formation of silent chromatin"</i>
	4:00p.m. – 5:45p.m.	Poster Session
	6:00.m. – 7:00p.m.	Dinner
Session 4:	7:00p.m. – 10:15p.m	Protein Methylation and Regulation of Gene Expression Clare M. O'Connor, Boston College
	7:00p.m. – 7:45p.m.	Clare M. O'Connor , Boston College <i>"Protein carboxymethylation and protein repair: Insights from genetic systems"</i>
	7:45p.m. – 8:30p.m.	Anne McBride , Bowdoin College <i>"Arginine methylation and mRNA binding proteins: Linking modulation of protein-protein interactions to nucleocytoplasmic transport"</i>
	8:30p.m. – 9:00p.m.	Coffee Break
	9:00p.m. – 9:45p.m.	Antje Ostareck-Lederer , Martin-Luther-University <i>"Arginine methylation of hnRNP K controls its function in the post-transcriptional regulation of gene expression"</i>
	9:45 – 10:30p.m.	Yanming Wang , Penn State University <i>"PAD4, histone Arg methylation and beyond"</i>

Tuesday, June 27, 2006

7:30a.m. – 9:00a.m.	Breakfast
Session 5: 9:00a.m. – 12:15p.m	Protein Methylation and Regulation of Cell Function Mark T. Bedford, University of Texas, Smithville
9:00a.m. – 9:45a.m.	Mark T. Bedford , University of Texas, Smithville <i>“Using proteomic approaches to understand protein methylation”</i>
9:45a.m. – 10:30a.m.	Jonathan Whetstine , Harvard Medical School <i>“Histone demethylation mediated by the nuclear amine oxidase LSD1”</i>
10:30a.m. – 10:45a.m.	FASEB Sponsored Coffee Break
10:45a.m. – 11:30a.m.	Wei Xu , University of Wisconsin-Madison Medical School <i>“Biological function of histone methyltransferase CARM1 in breast cancer and regulation of CARM1 activity by phosphorylation”</i>
11:30a.m. – 12:15p.m.	Stéphane Richard , McGill University <i>“Arginine methylation regulates the DNA damage response”</i>
12:15p.m. – 1:15p.m.	Lunch
	Free Afternoon
4:00p.m. – 5:45p.m.	<u>BUSINESS MEETING</u> and Poster Session
6:00p.m. – 7:00p.m.	Dinner
Session 6: 7:00p.m. – 10:15p.m	RNA Methylation W. Michael Holmes, Medical College of Virginia
7:00p.m. – 7:45p.m.	W. Michael Holmes , Medical College of Virginia <i>“Structural dynamics of tRNA methylation”</i>
7:45p.m. – 8:30p.m.	Zhiyong Yang , UC Riverside <i>“miRNA methylation in plants: Biochemistry and function”</i>
8:30p.m. – 8:45p.m.	Coffee Break
Short talks 8:45-10:15	Stuart Maxwell , NC State <i>“Mechanisms for rRNA methylation by SnoRNA”</i> Jason Rife , VCU Medicinal Chemistry USA <i>“Ultraconserved adenosine rRNA dimethyltransferases: their roles in ribosome biogenesis and antibiotic resistance”</i> Henri Grosjean , CNRS Gif-sur-Yvette <i>“Identification and characterization of new tRNA methyltransferases in Bacteria, Archeae and Eukarya: evolutionary implications”</i> Paul D. Gershon , UC Irvine <i>“Structure and function of mRNA CAP 2-O Methylation”</i>

Wednesday, June 28, 2006

7:30a.m. – 9:00a.m.	Breakfast
Session 7: 9:00a.m. – 12:15p.m.	DNA Methylation Mario F. Fraga, Spanish National Cancer Center
9:00a.m. - 9:30a.m.	Mario Fraga , Spanish National Cancer Center <i>"The DNA methylome of cancer cells"</i>
9:30a.m. – 10:00a.m.	Victor Lobanenkov , NIAID/NIH, <i>"Recruitment & Targeting of Epigenetic Modifications in Mammalian Chromatin by Reciprocal Occupancy of CTCF/BORIS-binding Regions"</i>
10:10a.m. – 10:15a.m.	FASEB Sponsored Coffee Break
10:15a.m. – 10:45a.m.	Albert Jeltsch , International University Bremen <i>"Molecular enzymology of mammalian DNA methyltransferases"</i>
10:45a.m. – 11:30a.m.	Kathrin Muegge , National Cancer Institute, Frederick MD <i>"Epigenetic control during lymphoid development"</i>
11:30a.m. – 12:15p.m.	Lianna Johnson , UCLA <i>"Targeting Histone methylation and DNA methylation in Arabidopsis"</i>
12:15p.m. – 1:15p.m.	Lunch
2:00p.m. – 4:00p.m.	Minisymposium B: Recent advances in nucleic acid and small molecule methylation and in methyl-Arginine metabolism Mario F. Fraga , Spanish National Cancer Center
2:00p.m. – 2:20p.m.	Karolina L. Tkaczuk , Technical University of Lodz, Poland <i>"Comprehensive evolutionary analysis, comparison of active sites and re-classification of the SPOUT superfamily of methyltransferase"</i>
2:20p.m. – 2:40p.m.	Zong Sheng Guo , University of Pittsburgh Cancer Institute <i>"Epigenetic regulation of the Tumor Necrosis Factor Superfamily members in human pancreatic carcinoma cells"</i>
2:40p.m. – 3:00p.m.	Saulius Klimasauskas , Vilnius University <i>"Targeted transalkylation of DNA by methyltransferases"</i>
3:00p.m. – 3:20p.m.	Judith K. Christman , University of Nebraska Medical Center <i>"Comparison of DNA (Cytosine-C5) methyltransferase inhibition by oligodeoxyribonucleotides with 2-(1H)-Pyrimidone or 5-Azacytosine replacing the cytosine target for methylation"</i>
3:20p.m. – 3:40p.m.	Shaun Fouse , University of California Los Angeles <i>"Mapping epigenetic marks involved in the regulation of gene expression in mouse cells"</i>
3:40p.m. – 4:00p.m.	Oliver Eickelberg , Justus-Liebig University Giessen <i>"Decreased methyltransferase activity in idiopathic pulmonary arterial hypertension"</i>

4:00p.m. – 6:00p.m. Poster Session

6:00p.m. – 7:30p.m. Lobster Banquet Dinner

Session 8: 7:30p.m. – 10:00p.m

Mechanisms of AdoMet Catalysis
Richard Schowen, University of Kansas

7:30p.m. - 8:15p.m.

Ian Williams, University of Bath, UK
“Computational studies of COMT mechanism”

8:15p.m. – 9:00p.m.

Squire Booker, Penn State University
“The biosynthesis of lipoic acid: Tales of a radical SAM enzyme”

9:00p.m. – 9:15p.m.

Coffee Break

9:15p.m. – 10:00p.m.

T. C. Bruice, University of California Santa Barbara
“Mechanism of DNA cytosine C5 methylation: catalysis and specificity”

Thursday, June 29, 2006

7:30a.m. – 9:00a.m.

Breakfast

Session 9: 9:00a.m. – 11:30a.m

Methylation of Small Molecules
Sunny Zhou, Washington State University, Pullman

9:00a.m. - 9:45a.m.

Sunny Zhou, Washington State University
“Chemistry and biology of biological methylation”

9:45a.m. – 10:30a.m.

Harvey Mudd, NIMH, Bethesda
“The metabolic adaptability of AdoMet and the evolutionary histories of MAT and SAHH”

10:30a.m. – 11:15a.m.

Steven Clarke, University of California, Los Angeles
“Metabolomic approaches to identifying new methyltransferases”

11:15a.m. – 12:15p.m.

FASEB Sponsored Coffee Break and Departure

12:15p.m. – 1:30p.m.

Box Lunches Available

END OF CONFERENCE

For additional information contact:

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