

KEYSTONE SYMPOSIA on Molecular and Cellular Biology

RNA Silencing in Plants (G1)

February 17-22, 2015 • Keystone Resort • Keystone, Colorado, USA

Scientific Organizers: Robert Martienssen and Craig S. Pikaard

Supported by the Directors' Fund

Abstract & Scholarship Deadline: October 16, 2014 / Abstract Deadline: November 13, 2014 / Discounted Registration Deadline: December 17, 2014

TUESDAY, FEBRUARY 17

Registration

WEDNESDAY, FEBRUARY 18

Keynote Address

David C. Baulcombe, University of Cambridge, UK
Small RNA Biogenesis in Plants and Unicellular Algae

Small RNA Biogenesis and Stability

Xuemei Chen, University of California, Riverside, USA
Modification and Turnover of Small RNA

Blake C. Meyers, University of Delaware, USA
Phased Secondary siRNAs and their Roles in Plants

Speaker to be Announced

Short Talk(s) Chosen from Abstracts

Small RNA Programming via ARGONAUTE Function

R. Scott Poethig, University of Pennsylvania, USA
F Box and GW Repeat Proteins in Argonaute Regulation

James C. Carrington†, Donald Danforth Plant Science Center, USA
Functional Analysis of Three Arabidopsis ARGONAUTES Using Slicer-Defective Mutants

Hailing Jin, University of California, Riverside, USA
Duplex Strand Selection and AGO Regulation

Short Talk Chosen from Abstracts

Poster Session 1

THURSDAY, FEBRUARY 19

RNA Silencing and Germ Cell Fate

Jean-Phillippe Vielle-Calzada, Instituto Politécnico Nacional, Mexico
Apomixis and the Epigenetic Control of Female Gametogenesis

Anna Koltunow, CSIRO Plant Industry, Australia
Somatic Small RNA Pathways Promote the Mitotic Events of Megagametogenesis during Female Reproductive Development in Arabidopsis

Frederic Berger, Gregor Mendel Laboratory, Austria
Imprinting Regulation by RNA Dependent DNA Methylation

Rebecca Ann Mosher, University of Arizona, USA
Maternal Control of Pol IV-Dependent siRNAs in Arabidopsis Endosperm

Short Talk(s) Chosen from Abstracts

RNA-Dependent Chromatin Modification

Thierry Lagrange, Centre National pour la Recherche Scientifique (CNRS), University of Perpignan, France
Mechanisms of Transcriptional Gene Silencing in Arabidopsis thaliana

Vincent Colot, Ecole Normale Supérieure, France
RNAi and Transgenerational Stability of DNA Methylation Variants

Andrzej T. Wierzbicki, University of Michigan, USA
Control of Chromatin Structure by Long Noncoding RNA

Short Talk Chosen from Abstracts

Poster Session 2

FRIDAY, FEBRUARY 20

Transcriptional Epigenetic Inheritance

Craig S. Pikaard, HHMI/Indiana University, USA
Silent Locus Identity and RNA-Mediated Silencing: Separable Steps of Epigenetic Inheritance

Jerzy Paszkowski, University of Cambridge, UK
Contribution Epigenetics to Transgenerational Inheritance

Ortrun Mittelsten Scheid, Gregor Mendel Institute of Molecular Plant Biology, Austria

Cooperation of Multiple Chromatin Modifications Can Generate Unanticipated Stability of Epigenetic States in Arabidopsis

Jay B. Hollick, Ohio State University, USA
Maize RNA Polymerase IV Defines Trans-Generational Epigenetic Variation

Short Talk(s) Chosen from Abstracts

Chromosomal RNA Silencing

Steven E. Jacobsen, HHMI/University of California, Los Angeles, USA
Mechanistic Studies of RNA-Mediated Chromatin Silencing in Arabidopsis

Julie A. Law, The Salk Institute for Biological Studies, USA
Polymerase IV Occupancy at RNA-Directed DNA Methylation Sites Requires SHH1

Robert Martienssen, Cold Spring Harbor Laboratory, USA
Heterochromatin Reprogramming with Small RNA

Short Talk Chosen from Abstracts

Poster Session 3

SATURDAY, FEBRUARY 21

RNA Signaling, DNA Methylation and Demethylation

Olivier Voinnet†, Swiss Federal Institute of Technology, Switzerland
Cell-to-Cell and Long-Distance siRNA Movement in Plants: Mechanisms and Biological Implications

Daniel Zilberman, University of California, Berkeley, USA
DNA Demethylation and Small RNA Signaling in Plants

Marjori Ann Matzke, Inst Plant & Microbial Biol, Acad Sinica, Taiwan
Genes Required for RNA-Directed DNA Methylation in Arabidopsis thaliana

Jian-Kang Zhu, Purdue University, USA
Mechanisms of Epigenetic Silencing and Anti-Silencing in Arabidopsis

Short Talk(s) Chosen from Abstracts

Novel Biological Functions of Noncoding RNA

Yijun Qi, Tsinghua University, China
Small RNA in DNA Repair

Caroline Dean, John Innes Centre, UK
Noncoding RNAs and Chromatin Regulation at Arabidopsis FLC

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Marie Mirouze, University of Geneva, Switzerland

Selective Epigenetic Control of Retrotransposition in Arabidopsis

Short Talk Chosen from Abstracts

SUNDAY, FEBRUARY 22

Departure