

KEYSTONE SYMPOSIA

on Molecular and Cellular Biology

Genomic Stability and DNA Repair (S3)

September 20-24, 2020 • Beaver Run Resort • Breckenridge, CO, USA

Scientific Organizers: Roger Greenberg, Dipanjan Chowdhury and Gaelle Legube

Supported by the Directors' Fund

Scholarship Deadline: June 10, 2020 / Abstract Deadline: June 24, 2020 / Discounted Registration Deadline: July 21, 2020

SUNDAY, SEPTEMBER 20

Arrival and Registration

MONDAY, SEPTEMBER 21

Welcome and Keynote Session

Karlene A. Cimprich, Stanford University, USA

Conflicts between Transcription and Replication Forks

Alan D. D'Andrea, Dana-Farber Cancer Institute, USA

The Deshieldin Complex Regulates DNA Repair Pathway Choice

Replication Dependent Mechanisms of Genome Stability

David Cortez, Vanderbilt University School of Medicine, USA

Replication Fork Dynamics and Genome Stability

Mirit Aladjem, NCI, National Institutes of Health, USA

Replication Origin Modulation: Preventing Runaway DNA Synthesis To Insure Genomic Stability

Short Talk(s) Chosen from Abstracts

Workshop 1: Basic Mechanisms of Replication

Short Talks Chosen from Abstracts

Workshop 2: Basic Mechanisms of DNA Repair

Short Talks Chosen from Abstracts

Mechanisms of Recombination and Repair

Lorraine S. Symington, Columbia University, USA

Control of Homologous Recombination

Maria Jasin, Memorial Sloan Kettering Cancer Center, USA

BRCA Control of Homologous Recombination and Replication Fork Protection

Barry P. Sleckman, University of Alabama Birmingham School of Medicine, USA

The Regulation of Homologous Recombination in G1-Phase Cells

Patrick M. Sung, University of Texas Health Science Center at San Antonio, USA

Reconstitution of Homologous Recombination Pathways

Short Talk(s) Chosen from Abstracts

Poster Session 1

TUESDAY, SEPTEMBER 22

Chromatin Organization and Genome Stability

Irene Chiolo, University of Southern California, USA

Nuclear and Chromatin Dynamics for Heterochromatin Repair

Gaelle Legube, Center for Integrative Biology, France

Chromatin and Chromosome Dynamics at DNA Double Strand Breaks

André Nussenzweig, NCI, National Institutes of Health, USA

Mechanisms that Maintain Genome Stability

Daniel Durocher, Lunenfeld-Tanenbaum Research Institute, Canada

Navigating the Genetic Networks Underpinning Genome Integrity

Short Talk(s) Chosen from Abstracts

Cell Cycle Regulation of Genome Stability

David Pellman, Dana-Farber Cancer Institute, USA

Mitotic Mechanisms of Genome Rearrangements

Dipanjan Chowdhury, Dana-Farber Cancer Institute, Harvard Medical School, USA

Competition between DNA Repair Mechanisms

Titia de Lange, Rockefeller University, USA

Causes and Consequences of Aneuploidy

Short Talk(s) Chosen from Abstracts

Poster Session 2

WEDNESDAY, SEPTEMBER 23

RNA Mechanisms of Genome Stability

Helle D. Ulrich, Institute of Molecular Biology, Germany

Regulation of DNA Damage Bypass in Time and Space

Joachim Lingner, École Polytechnique Fédérale de Lausanne, Switzerland

TERRA Long Noncoding RNA at Telomeres

Keith W. Caldecott, University of Sussex, UK

DNA Strand Break Repair and Human Genetic Disease

Short Talk(s) Chosen from Abstracts

Workshop 3: Genome Engineering

Short Talks Chosen from Abstracts

DNA Repair Mechanisms in Cancer

J. Ross Chapman, University of Oxford, UK

Molecular Interplay between BRCA1-BARD1 Complexes and the 53BP1 Pathway

Speaker to be Announced

Jacqueline J. Jacobs, Netherlands Cancer Institute, Netherlands

Mechanisms of Telomere End Protection

Short Talk(s) Chosen from Abstracts

Poster Session 3

THURSDAY, SEPTEMBER 24

Emerging Aspects in Genome Stability

Katharina Schlacher, MD Anderson Cancer Center, USA

Mitochondrial Replication Stability and Inflammation

Nima Mosammaparast, Washington University in St. Louis, USA

DNA Alkylation Damage: From Signaling To Repair

Roger Greenberg, University of Pennsylvania, USA

Mechanisms of Noncanonical Homology Directed Repair

Short Talk(s) Chosen from Abstracts

Workshop 4: Translation of DNA Repair into the Clinic

Short Talks Chosen from Abstracts

Workshop 5: DNA Damage Signaling

Short Talks Chosen from Abstracts

Genome Stability and Human Physiology

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Simon J. Boulton, Francis Crick Institute, UK
Telomere End Protection in Stem Cells and Development

Madalena Tarsounas, University of Oxford, UK
Targeting BRCA beyond PARP Inhibitors

Ketan J. Patel, MRC Laboratory of Molecular Biology, UK
Metabolism and the Fanconi Phenotype

Speaker to be Announced

Short Talk(s) Chosen from Abstracts

Meeting Wrap-Up: Outcomes and Future Directions (Organizers)

FRIDAY, SEPTEMBER 25

Departure