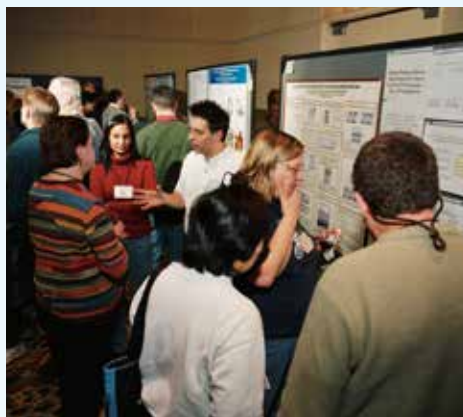




Join Keystone Symposia
for the 2016 conference on:

Biology of Down Syndrome: Impacts Across the Biomedical Spectrum

January 24–27, 2016

Hilton Santa Fe Historic Plaza Hotel | Santa Fe, New Mexico | USA

Scientific Organizers:

Victor Tybulewicz, Elizabeth Fisher, Thomas Blumenthal and Jeanne Lawrence

Down syndrome (DS) arises from an extra copy of an entire human chromosome, 21 (Hsa21) (trisomy 21), resulting in a wide constellation of phenotypes; in addition to learning and memory deficits, there are greatly increased risks for congenital heart defects, early-onset Alzheimer's disease and leukemia. DS is a common disorder, with a prevalence of around 1 in 750 births, a frequency that is not diminishing despite the availability of pre-natal diagnosis. It is the leading genetic cause of cognitive impairment. The goals of the meeting are to: 1) Provide an interdisciplinary meeting covering all aspects of DS research from genetics and cell biology using animal models to human studies and therapy; 2) Encourage interactions and new interdisciplinary collaborations in DS research; 3) Set standards for animal models, cellular assays and clinical phenotyping relevant to DS; 4) Provide a forum in which academia and industry can interact in order to promote translation of research toward therapy.

Session Topics:

- Down Syndrome at the Cellular Level
- Gene Regulation in Down Syndrome
- Genetics and Epidemiology of Down Syndrome
- Dysregulation of Cellular Pathways in Down Syndrome
- Cognition and Alzheimer's Disease

- in Down Syndrome
- Therapy – Present and Future



Submitting an abstract is a great way of participating in the conference through poster presentation and possible selection for a short talk.

Scholarship & Discounted Abstract Deadline: **Sep 24, 2015**

Abstract Deadline: **Oct 26, 2015**

Discounted Registration Deadline: **Nov 20, 2015**

For additional details, visit www.keystonesymposia.org/16A4.

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SUNDAY, JANUARY 24

Arrival and Registration

MONDAY, JANUARY 25

Welcome and Keynote Address

John Hardy, University College London, Institute of Neurology, UK
Genetic Determinants of Alzheimer's in Down Syndrome

Down Syndrome at the Cellular Level

Rick Livesey, University of Cambridge, UK
Human Stem Cell Models of Cerebral Cortex Development and Disease in Down Syndrome

Michael F. Clarke, Stanford University, USA
Molecular Regulation of Stem Cells in Down Syndrome

Anita Bhattacharyya, University of Wisconsin-Madison, USA
Interneuron Development in Down syndrome

Short Talk(s) Chosen from Abstracts

Gene Regulation in Down Syndrome

Stylianios E. Antonarakis, University of Geneva Medical School, Switzerland
Transcriptome Dysregulation and Single Cell Genomics in Trisomy 21

Angelika Amon, Massachusetts Institute of Technology, USA
Effects of Aneuploidy on Hematopoiesis and Blood Malignancies

Thomas Blumenthal, Linda Crnic Institute for Down Syndrome, USA
Protein Level Changes in the Blood Reveal Altered Cell Signaling Pathways in Down Syndrome

Short Talk Chosen from Abstracts

Poster Session 1

TUESDAY, JANUARY 26

Genetics and Epidemiology of Down Syndrome

Julie R. Korenberg, University of Utah, USA
Wiring the Brain for Down Syndrome

Victor L.J. Tybulewicz, Francis Crick Institute, UK
Mapping Dosage-Sensitive Genes Causing Cardiac Defects in Down Syndrome

Yann Herault, IGBMC, France
Down Syndrome Mouse Models for Deciphering Cognitive Impairment

Nicole Schupf, Columbia University Medical Center, USA
Genetic and Biomarker Risk Factors for Dementia in Down Syndrome

Short Talk(s) Chosen from Abstracts

Poster Session 2

Dysregulation of Cellular Pathways in Down Syndrome

Ralph A. Nixon, New York University, Langone Medical Center, Nathan Kline Institute, USA
Genetic Basis for Autophagy and Mitophagy Deficits in Down Syndrome (DS)

John Crispino, Northwestern University, USA

DYRK1A Signaling in Leukemia in Children with Down Syndrome

Roger H. Reeves, Johns Hopkins University School of Medicine, USA
Disruption of SHH Signaling in Trisomy

Short Talk Chosen from Abstracts

WEDNESDAY, JANUARY 27

Cognition and Alzheimer's Disease in Down Syndrome

Elizabeth Fisher, UCL Institute of Neurology, UK
Trisomy of Chromosome 21 Modifies APP/Abeta Pathology

William C. Mobley, University of California, San Diego, USA
Rethinking Alzheimer's Disease Pathogenesis and Treatment in the Context of Down Syndrome

Huntington Potter, University of Colorado Denver, USA
Trisomy 21 and Other Aneuploidy in Multiple Neurodegenerative Diseases

Antonia M.W. Coppus, Radboud University Medical Center, Netherlands

Comparing Generational Differences within Down Syndrome

Short Talk(s) Chosen from Abstracts

Therapy – Present and Future

Omar Khwaja, F. Hoffmann-LaRoche AG, Switzerland
Early Clinical Development of a GABA-A Negative Allosteric Modulator for Treatment of Intellectual Disability in Down Syndrome

Jeanne Bentley Lawrence, University of Massachusetts, USA
Targeting Epigenetics to Balance a Chromosomal Disorder: Inducible Silencing of Chromosome 21 Reveals Cell Pathologies in Down Syndrome

Su-Chun Zhang, University of Wisconsin-Madison, USA
Modeling Neurological Diseases Using Human Stem Cells

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

THURSDAY, JANUARY 28

Departure