

51st Annual *Drosophila* Research Conference

The 51st Annual *Drosophila* Research Conference was held on 7-11 April 2010 at the Marriott Wardman Park in Washington, D.C.. The year 2010 is the 100th anniversary of the publication of T.H. Morgan's description of the first mutation in *Drosophila melanogaster*, the sex-linked white eye. The 2010 Organizing Committee was Debbie Andrew (Johns Hopkins School of Medicine), Mark Fortini (Thomas Jefferson University), Steve Hou (National Institutes of Health), and Leslie Pick (University of Maryland).. The conference was sponsored by The *Drosophila* Board in association with the Genetics Society of America, 9650 Rockville Pike, Bethesda, MD 20814-3998. The Program and Abstracts Volume lists 839 presentations, including 156 platform session talks and 683 posters (www.drosophila-conf.org).

Historical Panel Viewpoints, hosted by Hugo Bellen (Baylor College of Medicine, Houston)

Panel Members: Thom Kaufman, Gerald M. Rubin, Susan E. Celniker, William M. Gelbart, Allan C. Spradling, and Norbert Perrimon

Plenary Lectures (In Presentation Order)

- Duojia (DJ) Pan (Johns Hopkins University School of Medicine, Baltimore, MD). Control of organ size and tumorigenesis by the Hippo signaling pathway.
- Kenneth D. Irvine (Waksman Institute, Rutgers University, Piscataway, New Jersey). Growth control by the Fat-Hippo pathway in *Drosophila*.
- Elisabeth Knust (Max Planck Institute of Molecular Cell Biology & Genetics, Dresden, Germany). Cell polarity – Understanding pattern formation at the cellular level.
- Ting Xie (Stowers Institute, Kansas City, Missouri). Molecular and cellular mechanisms underlying ovarian germline stem cell regulation.
- Eric H. Baehrecke (University of Massachusetts Medical School, Worcester). Regulation and function of autophagy during cell survival and cell death.
- Lynn Cooley (Department of Genetics and Department of Cell Biology, Yale School of Medicine; Department of MCDB, Yale University, New Haven, CT). Cellular mechanisms controlling oocyte growth.
- Craig Montell (Johns Hopkins University School of Medicine, Baltimore, Maryland). TRP channels: From sensory signaling to neurodegenerative disease.
- Larry Zipursky (UCLA/HHMI, Los Angeles, California). The role of Dscam proteins in regulating neural circuit assembly in *Drosophila*.
- Chiara Cirelli (Department of Psychiatry, University of Wisconsin, Madison). Sleep and synaptic plasticity.
- Bill Sullivan (University of California, Santa Cruz). Tribute to Dr. John Sisson.
- Elizabeth Chen (Johns Hopkins University School of Medicine, Baltimore, Maryland). The process of myoblast fusion in skeletal muscle cells.
- Sharyn Endow (Duke University Medical Center, Durham, North Carolina). Microtubule motors and the oocyte spindle.
- Antonia Monteiro (Yale University, New Haven, Connecticut). How we study the evolution of novel complex traits.