

55th Annual *Drosophila* Research Conference

The 55th Annual *Drosophila* Research Conference was held on 26-30 March 2014 in San Diego, CA. The 2014 Organizing Committee was Daniela Drummond-Barbosa (Johns Hopkins University), Elissa Lei (NIH/National Institute of Diabetes and Digestive and Kidney Diseases), Mihaela Serpe (NIH/Eunice Kennedy Shriver National Institute of Child Health and Human Development), and Mark Van Doren (Johns Hopkins University). 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 two Plenary sessions, 156 platform session talks, 735 posters, and 15 workshops.

Historical Address Speaker

Bruce Alberts (UCSF, San Francisco, CA). Science, Biology, and the World's Future.

Plenary Lectures (in presentation order)

Arthur D. Lander (Dept. of Dev. Cell Biol. and Dept. of Biomedical Engineering, Univ. California, Irvine). Controlling morphogen gradients.

Helen McNeill (Lunenfeld-Tanenbaum Institute, Mt Sinai Hospital, Toronto, ON, Canada, and Dept. of Molecular Genetics, Univ. Toronto, Canada). Fat cadherins in growth, planar polarity and mitochondrial activity.

Xin Chen (Dept. of Biol., Johns Hopkins Univ., Baltimore, MD). Epigenetic regulation of *Drosophila* male germ cell differentiation.

Erica N. Larschan (Molec. Biol., Cellular Biol. & Biochem., Brown Univ., Providence, RI). X marks the spot: Targeting the X chromosome during dosage compensation.

Benjamin H. White (Laboratory of Molecular Biology, National Institute of Mental Health, Bethesda, MD). Circuit mechanisms underlying behavioral decisions and motor program sequencing in ecdysis.

David L. Stern (Janelia Farm Research Campus, Howard Hughes Medical Institute, Ashburn, VA). The molecular evolution of morphology and behavior.

Trudy F. Mackay (Dept. of Biological Sciences, North Carolina State Univ., Raleigh). Charting the genotype-phenotype map: Lessons from *Drosophila*.

Aaron DiAntonio (Dept. of Developmental Biology, Washington Univ. School of Medicine, St. Louis, MO). Walking the highwire from synaptic growth to the axon injury response pathway.

Toshie Kai (Temasek Lifesciences Laboratory, Dept. of Biological Science, National University of Singapore). Nuage and piRNAs function for the safeguard of germline genome.

Francois Karch (Dept. Genetic and Evolution, Univ. of Geneva, Switzerland). Multiple layers of complexity in the regulation of the bithorax complex.

Rolf Bodmer (Development and Agi, Sanford-Burnham Medical Research Institute, La Jolla, CA).
Cardiomyopathy models.

Patrick H. O'Farrell (Dept. of Biochemistry, Univ. of California, San Francisco). The conflicted existence of
the mitochondrial genome.

Workshops (in presentation order)

Ecdysone Workshop

Organizers: Ginger Carney (Texas A&M University) and Laurie von Kalm (University of Central
Florida)

Undergraduate Plenary Session and Workshop

Organizers: Alexis Nagengast (Widener University) and Beth Ruedi (Genetics Society of America,
Bethesda, MD)

Flies on Drugs – Screening for Therapeutics in *Drosophila*

Organizers: Daniela Zarnescu (University of Arizona, Tucson) and Tin Tin Su (University of
Colorado, Boulder)

Developmental Mechanics

Organizers: Guy Tanentzapf (University of British Columbia, Vancouver, Canada) and Rodrigo
Fernandez-Gonzalez (University of Toronto, Canada)

***Drosophila* Male Fertility as a Cell Biological Model**

Organizers: Julie Brill (The Hospital for Sick Children, Toronto, Canada) and Mariana Wolfner
(Cornell University, Ithaca, NY)

The Practice and Promise of CRISPR/Cas9-mediated Genome Engineering

Organizers: Melissa Harrison (University of Wisconsin, Madison) and Kate O'Connor-Giles
(University of Wisconsin, Madison)

Extracellular Epithelial Barriers

Organizers: Edward Blumenthal (Marquette University, Milwaukee, WI) and Bernard Moussian
(University of Tübingen, Germany)

***Drosophila* Metabolomics Workshop**

Organizers: Thomas Merritt (Laurentian University, Sudbury, Canada), Daniel Promislow (University
of Washington, Seattle), and Jason Tennessen (Indiana University, Bloomington)

Wound Healing and Regeneration

Organizers: Adrian Halme (University of Virginia School of Medicine, Charlottesville) and Rachel
Smith-Bolton (University of Illinois, Urbana-Champaign)

Data-driven Mathematical Modeling in *Drosophila* as a Tool for Discovery

Organizer: David M. Umulis (Purdue University, West Lafayette, IN)

***Drosophila* Research and Pedagogy at Primarily Undergraduate Institutions (PUI)**

Organizers: Scott Ferguson (SUNY, Fredonia, NY) and Jennifer Kennell (Vassar College,
Poughkeepsie, NY)

Genetics, Genomic and Informatic Resources for Non-*melanogaster* Drosophilidae

Organizers: William Gelbart (Harvard University, Cambridge, MA) and Therese Markow (University of California, San Diego)

Everything You Ever Wanted to Know About Sex

Organizers: Artyom Kopp (University of California, Davis) and Michelle Arbeitman (Florida State University, Tallahassee)

Feeding Behavior, Nutrition and Metabolism

Organizers: Tânia Reis (University of Colorado, Aurora) and William W. Ja (The Scripps Research Institute, Juniper, FL)

Centrosomes and Cilia in Cell Division and Disease

Organizers: Tim Megraw (Florida State University, Tallahassee) and Tomer Avidor-Reiss (University of Toledo, OH)

The North American *Drosophila* Board

The Board's duties include: overseeing community resource centers and addressing other research and resource issues that affect the entire *Drosophila* research community. The Board also administers the finances for the annual North America *Drosophila* Research Conference and its associated awards, and it chooses the organizers and the site of the annual meeting. The Board consists of nine regional representatives and four international representatives, who serve 3-year terms. The three elected officers are President, President-Elect, and Treasurer. In addition, the Board has *ex officio* members who represent *Drosophila* community resources or centers. For more information about the Board and the summaries of the annual Board meetings, see: Fly Board under the News menu at the FlyBase web site: flybase.bio.indiana.edu.

Drosophila Board Membership as of 55th Annual *Drosophila* Research Conference March 2014

President: Amy Bejsovec (Duke University, Durham, NC)

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Past-President & Elections Chair: Elizabeth Gavis (Princeton University, NJ)

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Northwest: Leo Pallanck (University of Washington, Seattle)