Organizing Committee: Marianne Bronner-Fraser (Chair, SDB President), Claude Desplan, Robb Krumlauf and Andrea Streit
Local Organizers: Laura Burrus and Richard Schneider

Additional 15-min short talks in Concurrent Sessions will be selected from abstracts submitted by SDB members.

**Wednesday, July 22, 2009**
1 pm – 9 pm  
*First Faculty Re-Boot Camp*  
Chair: Karen Bennett, Univ of Missouri-Columbia

**Thursday, July 23, 2009**
8 am – 1 pm  
*First Faculty Re-Boot Camp* (continuation)  
Chair: Karen Bennett, Univ of Missouri-Columbia

8 am – 5 pm  
*$Satellite Symposia$ (not organized by SDB)  
Symposium I - *Neural Crest and Ectodermal Placodes*  
Co-Chairs: Paul Trainor, Andrea Streit and Robb Krumlauf  
Symposium II - *Plant Development in a Changing World*  
Co-Chairs: Dominique Bergmann, Andrew Groover and Chelsea Specht

1 pm – 5 pm  
SDB Committees Meetings

6 pm – 8 pm  
*Presidential Symposium*  
Elliot Meyerowitz, Caltech. *Computational morphodynamics of the plant shoot apex*  
Claudio Stern, Univ College London, UK. *Gastrulation: from cells to embryo*  
Nadia Rosenthal, EMBL, Italy. *Enhancing regeneration in mouse and man*

8 pm – 11 pm  
*Opening Reception and Poster/Exhibit Session I*

**Friday, July 24, 2009**
7:30 am – 9 am  
Continental breakfast at Posters  
Tutorials - TBD

9 am – 12:30 pm  
*Concurrent Sessions*

**Concurrent 1 - Germ and Embryonic Stem Cells**
Yukiko Yamashita, U Michigan-Ann Arbor. *Asymmetric stem cell divisions; common theme and variation*
Jeff Long, Salk. *Specifying root/shoot stem cells during Arabidopsis embryogenesis*
Philip Benfey, Duke. *Getting to the root of developmental networks*
Mark Van Doren, Johns Hopkins. *The development of sexual dimorphism in the soma and germline*

**Concurrent 2 - Developmental Neurobiology**
Leslie Vosshall, Rockefeller. *The evolution of chemosensory perception in insects*
Josh Sanes, Harvard.
David Wilkinson, NIMR, UK. Feedback regulation of neurogenesis
Ben Novitch, UCLA. Transcriptional control of neurogenesis in the developing spinal cord

Concurrent 3 - Mechanisms of Developmental Patterning
Angela Stathopoulos, Caltech. Dynamic interpretation of morphogen gradients supports patterning in Drosophila
Elizabeth Robertson, Oxford, UK. Pathways controlling cell fate decisions in the early mouse embryo
Hisato Kondoh, Osaka Univ., Japan. Anterior and posterior neural plates from the epiblast are derived by distinct molecular mechanisms
Neelima Sinha, UC Davis. The regulation of leaf shapes

12:30 pm – 2 pm Funding Opportunities in Developmental Biology
Ida Chow, SDB – Moderator, with participation of representatives from NSF, NIH and other funding agencies.
Lunch on your own
Informal Poster viewing

2 pm – 4 pm Postdoctoral Symposium
Co-Chairs: Tara Alexander, Stowers Institute and Sujata Bhattacharyya, Emory University
Eight short talk speakers will be selected from abstracts submitted by postdoctoral fellows who are current SDB members

4 pm – 4:30 pm SDB Business Meeting

4:30 pm – 6:30 pm Plenary Session I – DEVELOPMENTAL BIOLOGY Symposium: Evolution of Developmental Regulatory Systems
Claude Desplan, NYU. Recycling genetic pathways during development
Patrick Lemaire, U Marseille, France. Analysis of Ciona intestinalis neural induction reveals a conserved genomic cis-regulatory code independent of transcription factor binding sites
Edith Heard, Institute Curie, France. Developmental dynamics and evolutionary plasticity of X-chromosome inactivation in mammals
Alejandro Sanchez Alvarado, Utah. Planarians, stem cells and regeneration

6:30 pm – 7:30 pm Meet the SDB Directors Reception for Students and Postdocs

6:30 pm – 8 pm Dinner on your own

8 – 11 pm Poster/Exhibit Session II

Saturday, July 25, 2009
7:30 am – 9 am Continental breakfast at Posters
Tutorials - TBD

9 am – 12:30 pm Concurrent Sessions
Concurrent 4 – Neural and Tissue Specific Stem Cells
Sean Morrison, U Michigan-Ann Arbor. The regulation of stem cell self-renewal
Sohyun Ahn, NICHD/NIH. Sonic hedgehog signaling in neural stem cells
Amy Wagers, Harvard. Blood stemcells: regulation by the niche
Julie Baker, Stanford. Transcriptional network that specifies endoderm from human embryonic stem cells
Concurrent 5 – Pattern Formation
Scott Holley, Yale. Duplication and diversification of hairy/enhancer of split related genes in the zebrafish segmentation oscillator
Dominique Bergmann, Stanford. Pattern and polarity in the plant epidermis
Richard Harland, UC Berkeley. BMP antagonists
Igor Dawid, NICHD/NIH. Regulation of dorsal-ventral axis formation by the control of protein stability

Concurrent 6 – Evolution of Complex Body Plan
Eric Davidson, CALTECH. Gene Regulatory Networks and the Encoded Logic of Development
Vivian Irish, Yale. Petal Development: variations on a theme
Nicole King, UC Berkeley. Choanoflagellate colonies and the origin of animal development
Chris Lowe, U Chicago. Deep conservation of deuterostome anterior patterning: origins of the vertebrate head

12:30 pm – 2 pm Lunch on your own
Informal poster viewing

2 pm – 4 pm Education Symposium – Talking about Science/Evolution to a Fellow Bus Rider
Chair: Steven Farber, Carnegie Institution for Science and Co-Chair: Diana Darnell, U of Arizona
George V. Coyne, U of Arizona, former Astronomer of the Vatican Observatory. Keynote Address
Interactive presentations

Historical Session - SDB, Then and Now
Chair: Marnie Halpern, Carnegie Institution of Science. History of SDB
Presidents’ Roundtable – participation by SDB Presidents

4:30 – 7 pm Plenary Session II — History of Developmental Biology
Diana Buchwald, CALTECH.
William (Ned) Friedman, U Colorado-Boulder. From Goethe to MADS-box genes: Two centuries of botanical thought on homology and evolutionary developmental biology
Jane Maienschein, Arizona State U. Regeneration, transplantation, and translation: What’s new, what’s new, and why it matters
Manfred Laubichler, Arizona State U. Development and evolution from Darwin to Davidson: Steps towards a mechanistic explanation of phenotypic evolution
Claudio Stern, UCL, UK. Organizers and genes - Waddington's legacy
Susan Ernst, Tufts. Offerings from an urchin

7 pm – 8 pm Dinner on your own

8 pm – 11 pm Poster/Exhibit Session III

Sunday, July 26, 2009
7:30 am – 9 am Continental breakfast at Posters
Tutorials - TBD

9 am – 12:30 pm Concurrent Sessions

Concurrent 7 - Development and Tissue Engineering
Rocky Tuan, NIAMS/NIH.
Mary Dickinson, Baylor Coll of Med.
Anand Asthagiri, CALTECH. Computational exploration of the evolutionary landscape of multicellular phenotypes
Linda Griffith, MIT.
Celeste Nelson, Princeton. *Morphogenesis of model tissues*

**Concurrent 8 – Epigenetic Influences on Development**
Carole LaBonne, Northwestern.
William Kelly, Emory. *Epigenetic erasure and transcriptional repression during C. elegans primordial germ cell specification*
Pablo Wappner, Instituto Leloir, Argentina. *Modulation of Drosophila development by hypoxia*

**Concurrent 9 – Organ Development**
Guillermo Oliver, St. Jude. *Everything you wanted to know about the development of the lymphatic vasculature but were afraid to ask*
José Xavier Neto, Univ de São Paulo, Brazil. *Insights into dorsoventral spinal cord patterning from an evolutionarily conserved Raldh2 (Aldh1a2) intronic enhancer*
Lisa Goodrich, Harvard. *Deaf and Dizzy mice: a genetic dissection of inner ear development*
Cheng Ming Chuong, USC. *Regulation of ectodermal organ regeneration*

12:30 pm – 1:30 pm   **Lunch on your own**
Informal poster viewing

1:30 pm – 3:30 pm   **Plenary Session III – Past Presidents: What are they up to now?**
Gail Martin, UCSF. *Sprouty genes and vertebrate organogenesis*
Bill Jeffery, U Maryland-College Park. *Origin and evolution of the neural crest in Chordates*
Ruth Lehmann, NYU. *Germ cell migration in vivo*
Eric Wieschaus, Princeton.

4:00 pm – 5:30 pm   **Awards Lectures**
Conklin Medal: David Kingsley, Stanford. *Fishing for the secrets of vertebrate evolution*; presentation by Richard Harland, SDB President-elect
DB-SDB Lifetime Achievement Award: Donald Brown, Carnegie Institution for Science. *Studying gene expression for 50 years*; presentation by Marianne Bronner-Fraser, SDB President
Hamburger Outstanding Educator Prize: Sean Carroll, Univ of Wisconsin-Madison. *Remarkable creatures: Epic adventures in the search for the origins of species*; presentation by Bill Wood, SDB Professional Development and Education Committee Chair

7:00 pm – 11 pm   **Closing Reception, Banquet and Best Student Poster Awards Presentation**

**Monday, July 27, 2009**
Departure

8:30 am – 5 pm   **SDB Board of Directors Meeting**