

## **Thursday April 27<sup>th</sup>**

### **Education Session: 6:30-8:30**

- 6:30-6:45      **Welcome and Introductory Remarks  
by Cathy Savage-Dunn and David Matus**
- 6:45-8:15      **Alan Alda Center for Communicating Science**
- 8:15-8:30      Fast Track Talks

### **Poster Session and Mixer: 8:30-10:30**

## **Friday April 28<sup>th</sup>**

### **Breakfast: 7:00-8:30**

### **Session I: Morphogenesis and Motility 9:00-12:00**

*Chair:*                *Mansi Srivastava*

- 9:00-9:20      **Anna-Katerina Hadjantonakis**, Memorial Sloan Kettering Cancer Center, Member, FGFR signaling and the emergence of pluripotency in the mouse embryo.
- 9:20-9:35      **Natalia Shylo**, Yale University, Graduate Student, Tmem107 mouse models provide key insights into the phenotypic variability of cilia-mediated developmental patterning.
- 9:35-9:50      **Elizabeth Bearce**, Boston College, Graduate Student, TACC3, a microtubule plus-end tracking protein, regulates neural crest cell motility in vitro and in vivo.
- 9:50-10:05      **Mayu Inaba**, University of Connecticut Health, Assistant Professor, Cellular protrusion mediated niche-stem cell communication.

10:05-10:30      Coffee Break

*Chair:*                *Lionel Christiaen*

- 10:30-10:50      **Kathryn Kavanagh**, University of Massachusetts, Dartmouth, Assistant Professor, Shared developmental rules predict patterns of size evolution in vertebrate segmented structures.
- 10:50-11:05      **Tyler Huycke**, Harvard Medical School, Graduate Student, Genetic and mechanically mediated patterning of gut smooth muscle.
- 11:05-11:20      **Diana Rubel**, Stony Brook University, Undergraduate Student, Deletion of B3glct disrupts craniofacial, skeletal, and cardiac development in mice.
- 11:20-11:35      **Amanda Baumholtz**, McGill University, Graduate Student, Claudins regulate cell shape and localization of signaling proteins at the apical cell surface during neural tube closure.
- 11:35-11:50      **Jenny Lanni**, Wheaton College, Assistant Professor, Essential function of ion pump Slc12a7a/KCC4a in regulating zebrafish fin proportion and pigment stripe formation.

### **Lunch: 12:00-1:30**

## Session II: Genomics and Gene Regulation 1:45-5:15

*Chair:* Carrie Adler

- 1:45-2:05 **Marcos Simoes-Costa**, Cornell University, Assistant Professor, Gene regulatory control of neural crest axial identity and cell fate.
- 2:05-2:25 **Cesar Arenas-Mena**, CUNY College of Staten Island, Associate Professor, The origins of developmental gene regulation.
- 2:25-2:40 **Sushma Teegala**, Queens College, CUNY, Graduate Student, Tbx2 is required for the suppression of mesendoderm during early *Xenopus* development.
- 2:40-3:00 **Kenneth Birnbaum**, New York University, Associate Professor, The link between injury and development in plant regeneration.

3:00-3:30 Coffee Break

*Chair:* Mara Schvarsztein

- 3:30-3:50 **Lionel Christiaen**, New York University, Associate Professor, Regulation of cardiopharyngeal fate specification in a simple chordate.
- 3:50-4:05 **Jeffrey Farrell**, Harvard University, Postdoctoral Fellow, A pre-gastrulation damage response uncovered by single-cell RNAseq.
- 4:05-4:20 Fast Track Talks
- 4:20-4:50 Coffee Break (sponsored by Nightsea)

## Keynote Address: 4:55-6:00

**Monica Driscoll**, Rutgers University, Professor, Neurons Can Take Out the Trash: A Novel Facet of Proteostasis and Mitochondrial Quality Control.

**Dinner: 6:15-7:30**

**Poster Session and Mixer: 8:00-10:00**

## Saturday April 29<sup>th</sup>

**Breakfast: 7:00-8:30**

## Session III: Germline, Stem Cells and Regeneration 9:00-12:00

*Chair:* Benjamin Martin

- 9:00-9:20 **Mansi Srivastava**, Harvard University, Assistant Professor, The evolution of mechanisms for animal regeneration.
- 9:20-9:35 **Austen Barnett**, Harvard University, Postdoctoral Fellow, The role of Hox genes in germ cell development in a basally-branching insect.
- 9:35-9:50 **Amelie Raz**, MIT, Graduate Student, Acoel regeneration mechanisms indicate ancient and widespread role for muscle in regenerative patterning.
- 9:50-10:10 **Mara Schvarsztein**, CUNY Brooklyn College, Assistant Professor, Chromosome inheritance in gamete and development.

10:10-10:35 Coffee Break

*Chair:* Chitra Dahia

10:30-10:50 **Prashanth Rangan**, SUNY Albany, Assistant Professor, RNA secondary structure regulates translation control of a germ line RNA in *Drosophila*.

10:50-11:05 **Nicholas Palmisano**, Queens College, CUNY, Graduate Student, The recycling GTPase, RAB-10, regulates autophagy flux in *Caenorhabditis elegans*.

11:05-11:20 **Nicholas Leigh**, Harvard Medical School, Postdoctoral Fellow, von Willebrand Factor D and EGF-Domains is essential for axolotl limb regeneration.

11:20-11:40 **Carolyn Adler**, Cornell University, Assistant Professor, A divergent neurexin-1 homolog controls muscle regeneration in planarians.

**Lunch: 12:00-1:30**

**Session IV: Signaling and Organogenesis 1:45-4:45**

*Chair:* Anna-Katerina Hadjantonakis

1:45-2:05 **Kristi Wharton**, Brown University, Professor, The varied BMP signaling output critical for development requires regulated proprotein processing.

2:05-2:20 **Matthew Harris**, Harvard Medical School, Graduate Student, When fish fly: using mutational phenocopy and phylogenetics to understand allometry in evolution.

2:20-2:35 **Jennifer Fish**, University of Massachusetts, Lowell, Assistant Professor, Tissue interactions and differing threshold requirements for Fgf8 contribute to variation in disease penetrance.

2:35-3:00 Coffee Break

*Chair:* Kenneth Birnbaum

3:00-3:20 **Benjamin Martin**, Stony Brook University, Assistant Professor, Combinatorial signaling interactions pattern the dorsal-ventral mesodermal axis by controlling bHLH transcription factor activity.

3:20-3:35 **Margherita Perillo**, Boston College, Postdoctoral Fellow, Positioning of nuclei at the neuromuscular and myotendinous junctions in the developing muscle.

3:35-3:50 **Tessa Montague**, Harvard University, Graduate Student, Vg1-Nodal heterodimers are the endogenous inducers of mesendoderm.

3:50-4:10 **Vivian Irish**, Yale University, Professor, Petal Development: a twist in fate.

4:10-4:45 Coffee Break

**Keynote Address: 4:45-5:50**

**Leonard Zon**, Harvard Medical School, Professor, Pathways Regulating Stem Cell Induction, Self-Renewal and Engraftment.

**Business Meeting: 5:50-6:10**

**Dinner: 6:30-8:30**

**Student and Postdoc Presentation Awards: 8:00-8:30**

**Sunday April 30<sup>th</sup>**

**Breakfast: 8:00-9:00**

**Departure**