PROGRAM

Sunday, June 11, 2023

17:00-21:00 Arrival and registration

18:00-20:00 - Welcome Reception – McCain Building (snacks, cash bar)

Monday, June 12, 2023 (McCain Auditorium)

8:45 Opening Remarks

9:00-10:15 **Platform Session 1: Genomics and Gene Regulation 1 (Chair: Jamie Kramer)**

1. 9:00-9:15 – Gil dos Santos
    - FlyBase: A Database of Drosophila Genetic and Molecular Data
2. 9:15-9:30 – Anthony Percival-Smith
    - The frequency and differential pleiotropy of phenotypic non-specificity in Drosophila melanogaster.
3. 9:30-9:45 – Nicholas Raun
    - Trithorax supports post-mitotic neuron identity by establishing metabolic capacity for long term memory.
4. 9:45-10:00 – Deniz Top
    - Distinct circadian transcription programs converge to regulate behaviour
5. 10:00-10:15 – Sonia Medina Giro
    - Clinical interpretation of rare PRC2 human variants in Drosophila

10:15 -10:45 Coffee Break

10:45-12:00 **Platform Session 2: Neurobiology 1 (Chair: Sonia Medina Giro)**

6. 10:45-11:00 – Paul Marcogliese
    - Variant annotation, disease models, biological mechanisms, and drug testing in Drosophila for rare and common neurological disorders.
7. 11:00-11:15 – Tomoko Ohyama
    - Comparative connectomics and escape behavior in larvae of closely related Drosophila species
8. 11:15-11:30 – Taryn Jakub
    - Using Drosophila models to define the clinical and molecular spectrum of the KDM6B-related neurodevelopmental disorder.
9. 11:30-11:45 – Alexandria St. Louis Frequenin
    - Negatively Regulates Nociception
10. 11:45-12:00 – Nicoletta Faraone
    - A single micro-dose of psilocybin induces antidepressant-like effects in Drosophila melanogaster.

12:00-14:00 Lunch

14:00-15:15 **Platform Session 3: Neurobiology 2 (Chair: Steve Jean)**

11. 14:00-14:15 – Jeffrey Dason
    - Activity-dependent cholesterol redistribution is required for synaptic growth.
12. 14:15-14:30 – Claire Richter Gorey
    - Examining the diverse effects of PI4Ks at the Drosophila melanogaster larval neuromuscular junction.
13. 14:30-14:45 – Seyedeh Leila Abtahi
    - A novel function for Ly6 family of proteins in Drosophila Neuromuscular Junction
14. 14:45-15:00 – Vanessa Auld
    - Dlg5 and Cadherins are key to peripheral glia integrity.
15. 15:00-15:15 – Teddy Erclik
    - Concurrent temporal patterning of neural stem cells in the fly visual system

15:30-17:30 **Poster Session 1** - snacks and cash bar

17:30 – Free evening and dinner on your own.

<u>Tuesday, June 13, 2023</u> (McCain Auditorium)

9:00-10:15 **Platform Session 4: Metabolism (Chair: Francesca Di Cara)**

16. 9:00-9:15 30 – Kirst King-Jones
    - Iron biology in Drosophila: Shedding light on the known unknowns
17. 9:15-9:30 – Puja Biswas
    - High levels of insulin/insulin-like growth factor signaling pathway promote increased body fat in female Drosophila.
18. 9:30-9:45 – Stephanie Makdissi
    - Myoinhibiting peptide precursor affects the diet-gut-brain axis and leads to neurodegeneration.
19. 9:45-10:00 – Marishia Agard
    - Exploring the role of tachykinins on the Drosophila melanogaster Malpighian 'renal' tubules.
20. 10:00-10:15 – Florence Hunter-Manseau
    - Mild nutritional and thermal stress improve longevity and mitochondrial functions of *Drosophila melanogaster.*

10:15-10:45 Coffee Break

10:45-12:00 **Platform Session 5: Cell Biology Cytoskeleton (Chair: Lori Borgal)**

21. 10:45-11:00 – Alison Boutet
    - Arfgap1 regulates the endosomal sorting of guidance receptors to promote directed collective cell migration in vivo.
22. 11:00-11:15 – Rachel Andrews
    - Altered collagen crosslinking attenuates cardiomyopathy in overgrown Drosophila
23. 11:15-11:30 – Jennifer Johnson
    - Testing the mechanical function of Filamin in muscles
24. 11:30-11:45 – Ana Maria Carmo
    - Cofilin promotes actomyosin turnover to drive rapid wound healing
25. 11:45-12:00 – Michelle Ly
    - Integrin-based adhesions promote cell-cell junction remodelling and cytoskeletal rearrangements to drive embryonic wound healing

12:00-12:30 EDI Introduction to all (Tamara Franz-Odendaal)

12:30-14:00 Lunch

13:00 – 14:00 EDI Lunch Workshop (Tamara Franz-Odendaal)

14:00-15:45 **Poster Session II** – with coffee and snacks

15:45-17:15 **Platform Session 6: Cell Biology Organelles (Chair: Nicolas Pichaud)**

26. 15:45-16:00 – Guy Tanentzapf
    - Kinetics of blood cell differentiation during hematopoiesis revealed by quantitative long-term live imaging.
27. 16:00-16:15 – Andrew Simmonds
    - Pex13 and Pex14 as Class II lipid droplet regulatory proteins
28. 16:15-16:30 – Thomas Hurd
    - ATP-regulated degradation drives the selective elimination of deleterious mitochondrial DNA in the female germline.
29. 16:30-16:45 – Colin Miller
    - Neuronal triglyceride metabolism regulates sex differences in whole-body energy homeostasis.
30. 17:00-17:15 – Rihab Loudhaief
    - Defining metabolic pathways that fuel intestinal stem cell's homeostasis.

17:30- Free evening and dinner on your own.

<u>Wednesday, June 14, 2023</u> (McCain Auditorium)

8:45-10:15 **Platform Session 7: Cell Cycle (Chair: Nicanor González-Morales)**

31. 9:00-9:15 – Virginie Emond-Fraser
    - Identification of PP2A-Tws targets uncovers regulation of Otefin during nuclear envelope reassembly.
32. 9:15-9:30 – Lori Borgal
    - Phospho-regulation of Asp during context-dependent spindle assembly.
33. 9:30-9:45 – Nam-Sung Moon
    - E2F deregulation results in cytoplasmic DNA accumulation in endoreplicating tissues
34. 9:45-10:00 – Xinyue Wang
    - Deciphering the roles and mechanisms of Ankle2 during mitosis in Drosophila
35. 10:00-10:15 – James Wakefield
    - The where and when of mitotic microtubule nucleation

10:15-10:45 Coffee Break

10:45-12:00 **Platform Session 8: Cell Signaling (Chair: David Green)**

36. 10:45-11:00 – Iyeh Mohammadi Champiri
    - The role of FERM-domain protein Okapi in regulating follicle stem cells in Drosophila ovaries
37. 11:00-11:15 – Gabriela Molinari Roberto
    - Regulation of Misshapen by Tao Kinase and Rap2l in Border Cell Migration
38. 11:15-11:30 – Yizhu Mu
    - Peroxisome-metabolism in the regulation of IMD pathway
39. 11:30-11:45 – Gamze Akarsu
    - Characterizing Robinow Syndrome DVL1 mutations in Drosophila melanogaster
40. 11:45-12:00 – Raymond Hawkins
    - Automated segmentation reveals gap junction signalling is required for embryonic wound healing.

12:00-14:00 Lunch

14:00-15:30 **Platform Session 9: Genomics and Gene Regulation 2 (Chair: Katheryn Rothenberg)**

41. 14:00-14:15 – Laura Nilson
    - Integration of multiple signaling cues defines EGFR signaling output in the follicular epithelium.
42. 14:15-14:30 – Julie Brill

- Eukaryotic initiation factor 4E-5 is essential for spermiogenesis in Drosophila melanogaster.

43. 14:30-14:45 – Spencer Jones
    - The transcription factor hierarchy activated during long-term memory formation downstream of CREB
44. 14:45-15:00 – Cooper Brabrook
    - Phenotypic non-specificity of signal transduction in Drosophila melanogaster
45. 15:00-15:15 – Katie Pelletier
    - Changes to cell size in the Drosophila melanogaster wing are important for adaptation to high altitude environments.
46. 15:15-15:30 – Sarah Hughes
    - A chromatin remodelling SWI/SNF subunit Snr1 regulates neural stem cell determination and differentiation

15:15-15:30 Closing remarks

15:30-16:30 PI meeting

16:30-18:30 – free time

18:30-19:00 – Arrive at dock to board the Harbour Queen

19:00-21:00 Final Banquet Dinner (prizes) and Cruise aboard the Harbour Queen