10th Annual Boston Area Drosophila (BAD) Meeting

Friday June 5th

Posters:

1 **Brandon Fricker** Harvard University
Walking dead: Identifying the drivers of locomotor rhythms in E. muscae infected flies

2 **Eugenie Cha** MIT
Investigating the Functions of G-protein Coupled Receptor (GPCR) Pathway Genes During Drosophila Gastrulation

3 **Macy Ingersoll** Harvard University
Unraveling the in vivo Function of the Long Oskar Domain in Germ Plasm Anchoring

4 **Zhuo Guan** MIT
Disease-causing mutations in Synaptotagmin can act via dominant-negative, gain-of-function or haploinsufficient mechanisms

5 **Teng Long** UConn
Identifying the Molecular Components that Generate the Transepithelial Potential in Insect Sensilla

6 **Raju Baskar** UT Southwestern
Molecules and Mechanisms Disassembling Bundled F-actin Cytoskeletal Structures

7 **Julianne Pelaez** Brandeis University
Functional Diversification of a Nutrient-sensing Gustatory Receptor Through Isoform-specific Tuning

8 **Myeonghoon Han** Harvard Medical School
Phage display-mediated immuno-PCR to detect low-abundance secreted proteins in Drosophila

9 **Carina Jones** University of Vermont
Kinesin-1 regulates centrosome asymmetry in Drosophila neuroblasts

10 **Jack Weidenbach** Boston College
Inflammation generates syncytia in the Drosophila epithelium

11 **Victoria Guarino** Boston University
Engineering Synthetic Transcription Factors to Explore How Activation Domains Shape Shadow Enhancer Logic

12 **Jessica M Sidisky** MIT

Active Zone Development, Maintenance and Turnover at Adult Neuromuscular Junctions During Aging

13 **Tamara Hadzic** Boston University

Modeling the temporal evolution of regulatory relationships in the Drosophila melanogaster IMD response

14 **Gabrielle Tercatin** Tufts University

Coordination of the individual domains of Drosophila POL θ promotes efficient, one-step TMEJ

15 **Michiko Inouye** MIT

Identification of differentially enriched genes specifying phasic Is and tonic Ib glutamatergic motor neuron subtypes using Patch-Seq in Drosophila larvae

16 **Susie Black** Boston University

Decoding the Features of Shadow Enhancers that Confer Robustness to Gene Regulatory Networks

17 **Melisa Balla** Tufts University

Beyond TLS: Navigating Lodestar's Path Through Replication Stress in Drosophila

18 **Anna Redhuis** Boston University

Exploring regulatory constraints on genes with immune-developmental pleiotropy in D. melanogaster

19 **Catherine Carmona** Brandeis University

The Molecular Mechanisms of Asymmetric Neurite Development in the Drosophila Visual System

20 **Tynan Gacy** University of Vermont

Hunger, Diet, and Sex Impact Amino Acid Sensation and Preference in Drosophila

21 **Ava Towle** Brandeis University

Regulation of Drosophila thermotaxis behavior by neuropeptide and G protein-coupled receptor signaling

22 **Sophie Bizink** UConn Health

Investigating Ultrastructure of Drosophila Spermiogenesis

23 **Layla Warsaw** Boston College

A tissue-specific screen reveals contributions of diverse tissues to Drosophila development

24 **(John) Barron Clancy** Brown University

Trio, a transcriptional target of bone morphogenetic protein (BMP) signaling, reduces amyotrophic lateral sclerosis (ALS)-associated neurodegeneration in Drosophila knock-in models

25 **Nicolas Cordova Loor** Tufts University

The MUS81 Endonuclease Becomes Essential for Topotecan Tolerance When REV1-Mediated Translesion Synthesis Is Compromised

26 **Dominic Lanni** UMass Boston

Sterile injury leads to expenditure and replenishment of crystal cells

27 **Leslie Torres Ulloa** Harvard University

Evidence that Entomophthora muscae controls the timing of fly-host death via a pathogen-dependent circadian clock mechanism

28 **Aslan Cook** Harvard University

Zombie immunity -- an Entomophthora muscae-resistant Drosophila species

29 **Maria Ivanova** Brandeis University

Immediate Early Gene (IEG) Expression in Drosophila Circadian Neurons

30 **Caroline Dwyer** UMass Boston

Monitoring nanoparticle-based drug targeting and localization in Drosophila tissues

31 **Emily Brown** UMass Boston

Drosophila as a model for nanoparticle-based drug delivery to the eye

32 **Mahima Gupta** Clark University

Modeling the function of Co-acting Enhancers in early Drosophila development

33 **Lake Palmeri** Whitehead Institute

Nanos Protects the Totipotent Potential of Germ Cells

34 **Lillie Suh** Whitehead Institute

Investigating the Role of the Polarity Protein Scribble in Ribosomal DNA Magnification

35 **Bijeta Gautam** UMass Boston

Hmx rewires Hippo pathway signaling to specify and maintain a photoreceptor subtype identity

36 **Kristy Jay** Mass General Brigham

Protein-specific O-GlcNAcylation regulates sleep and circadian rhythms in Drosophila

37 **Mackenzie A. Vallely** Boston College

Regulators of mitochondrial organization are necessary for nuclear spacing in the myofiber

38 **Yulia Akbergenova** MIT

A Noncanonical Role for Presynaptic MAD in Postsynaptic Receptor Clustering

39 **Skylar Charles** Bryant University

Serotonergic Modulation of Alcohol Association Behaviors

40 **Sydney Ballou** UConn

Cytochrome p450s in the Drosophila olfactory system

41 **Jessenia Yupangui Yupa** Harvard University

Zombuddies: Exploring Host-Pathogen Evolutionary Relationships Between Entomophthorales and Dipteran Hosts

42 **Geoffrey Keane** Brandeis University

From Drosophila to Aedes: ionotropic receptors in mosquito hygro- and thermo-sensation

43 **Devon Michaelson** University of Vermont

Identifying Genes That Affect Drosophila Food Choice Under Thermal Stress

44 **Chhavi Sood** MIT

Reduction in Ca2+ conductance of Cacophony channels alters their abundance and retention at active zones

45 **Emily Sarkisian** Brown University

Functional suppression of amyotrophic lateral sclerosis (ALS) associated neurodegeneration upon modulation of stress-granule associated genes

46 **Khandan Ilkhani** UMass Boston

Multisite phosphorylation is required for ERK-dependent downregulation of Capicua

47 **Julius Tabin** Harvard University

Towards a Multi-omic Understanding of *Entomophthora muscae* Behavioral Manipulation

48 **Ghalia Saad Siddiqui** Dartmouth

Identification of Ubiquitin Ligases that Regulate Wnt Signaling

49 **Natalie Warsinger-Pepe** UConn

Exploring the underpinnings of B chromosome drag through the *Drosophila melanogaster* paternal lineage

50 **Bao Ho** UMass Chan Medical School

The Dual Activation of the Imd/Toll pathways regulates a novel set of immune inducible genes in Drosophila

51 **Jorel R Padilla** Boston College

Klp61f and ncd Function as Accelerator and Brake to Regulate Myonuclear Spacing

52 **Madisen K. Caferro** Boston College

The Autophagy Protein Blue Cheese Affects Nuclear Spacing in Muscle Cells

53 **Ava Harris** Boston University

Investigating the Role of the M6 and Nmdar2 Genes on Young Adult Synaptic Dysfunction and Schizophrenia Development

54 **Michael Allara** UMass Boston

Crystal cells require a “happy medium” amount of Toll pathway stimulation for normal development.

55 **Shlesha Richhariya** Brandeis University

Mitochondrial dynamics and Parkinson’s-associated genes in circadian neurons: A Drosophila platform for a wide screen to identify neurodegeneration modifier genes.

56 **Laura Westhoff** Brandeis University

Where do they come from, where do they go? Endocytic protein abundance at the synapse.

57 **Sophia Sodhi** Boston University

Negative Geotaxis as a tool for studying Neurodevelopment deficits

58 **Bronwyn Miller** Harvard University

Host-use evolution in quinaria group Drosophila

59 **Amelie Raz** Whitehead Institute

Transcription factor Ovo orchestrates an inducible piRNA response during episodes of transposon threat in the male germline

60 **Diego Borges-Rivera** Clark University

The graphical structure of the Antennapedia complex

61 **Dan Koskas** Boston College

Motor Protein Dependent Nuclear Number and Spacing in Subperineurial Glial Cells

62 **Torrey Mandigo** Mass General Brigham

Seizures and Sleep Dysfunction in Congenital Disorders of Glycosylation arise from Distinct Mechanisms in Neurons and Glia

63 **Ryan Gossart** Brandeis University

Brain single-cell atlas of RNA isoforms reveals widespread alternative splicing of synaptic genes

64 **Gabrielle Paniccia** Harvard University

Making a Model: Building Protocols for Studying the Fly-Killing "Zombie" Fungus *Entomophthora muscae*