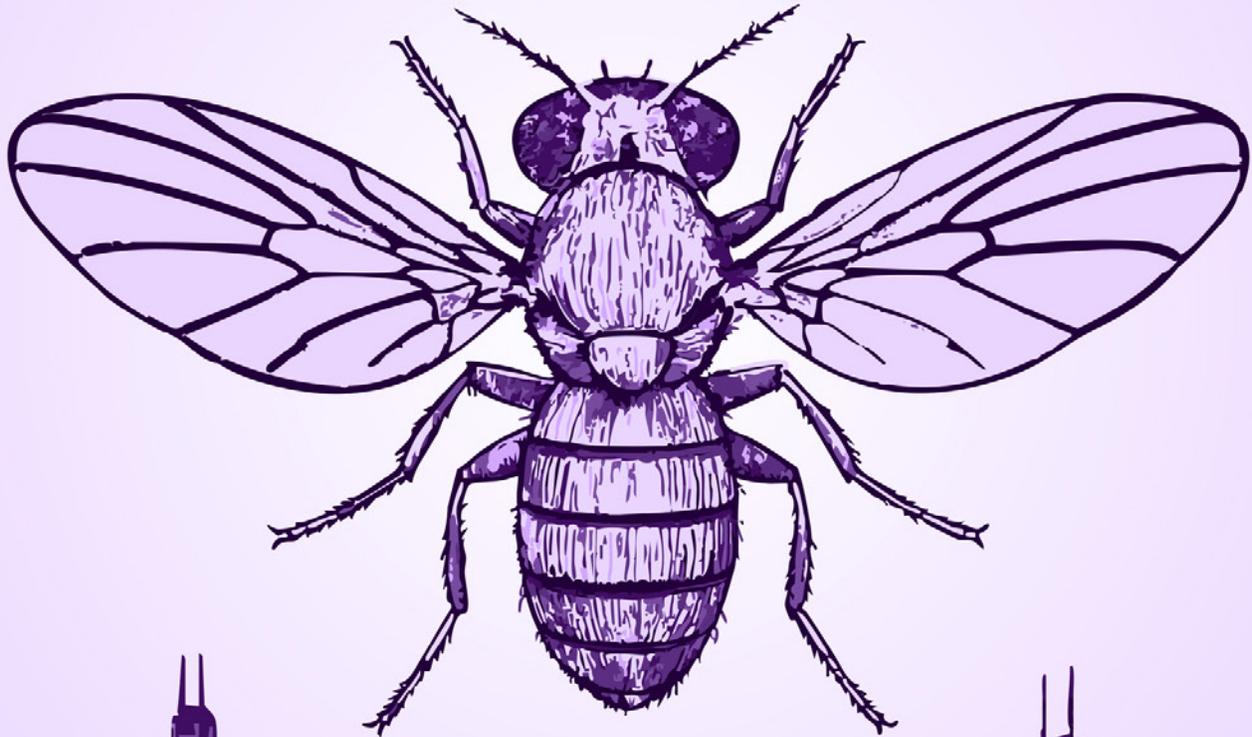


67th Annual
Drosophila Research
Conference



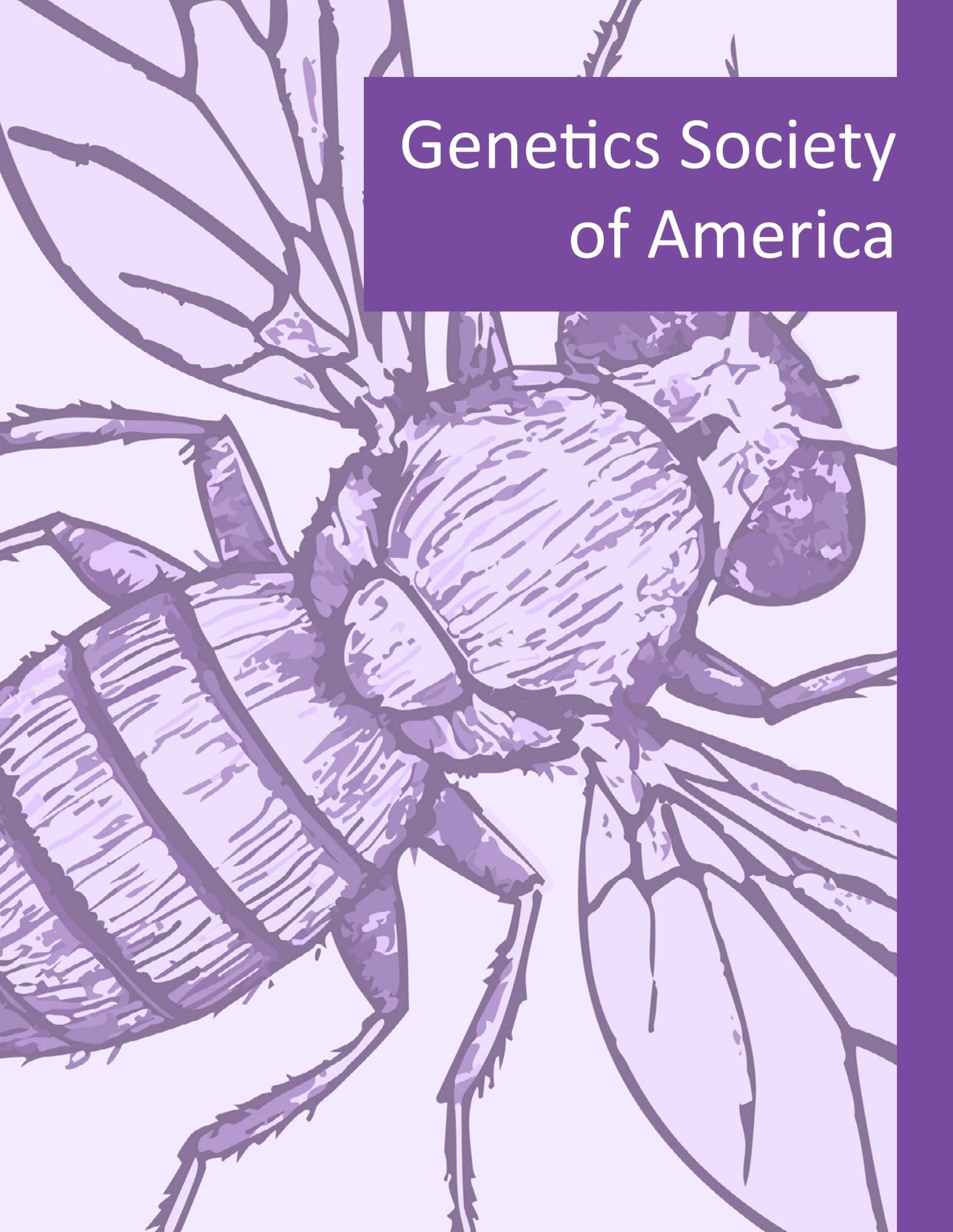
MARCH 4-8, 2026 | CHICAGO, IL

PROGRAM BOOK

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Genetics Society of America





GSA is an international scientific society representing approximately 5,000 researchers and educators around the world. In addition to connecting researchers through conferences and career programs, we publish two peer-reviewed scholarly journals, GENETICS and G3: Genes|Genomes|Genetics. We encourage you to join GSA so you can make use of exclusive member benefits and get involved in the Society's many programs, including professional development training, awards, advocacy, and more. Join us as we work to advance the field and serve our community. Visit genetics-gsa.org for more information.

GENETICS

GENETICS has been innovating since 1916, publishing high quality original research across the breadth of the field.



G3: Genes|Genomes|Genetics is an open access journal that publishes high quality, useful results regardless of perceived impact.

2026 GSA Board of Directors

Officers

Cassandra Extavour, *President*
David Greenstein, *Vice President*
Brenda Andrews, *Immediate Past President*
Maureen Barr, *Secretary*
Mary Mullins, *Treasurer*

Directors

Heather Bennett
Monica Colaiacovo
Kirk Lohmueller
Eyleen O'Rourke
Tania Reis
Jeffrey Ross-Ibarra
Jeff Sekelsky
Arun Sethuraman
Jason Stajich
Judith Yanowitz

Journal Editors

Howard Lipshitz, Editor in Chief, GENETICS
Lauren McIntyre, Editor in Chief, G3: Genes|Genomes|Genetics

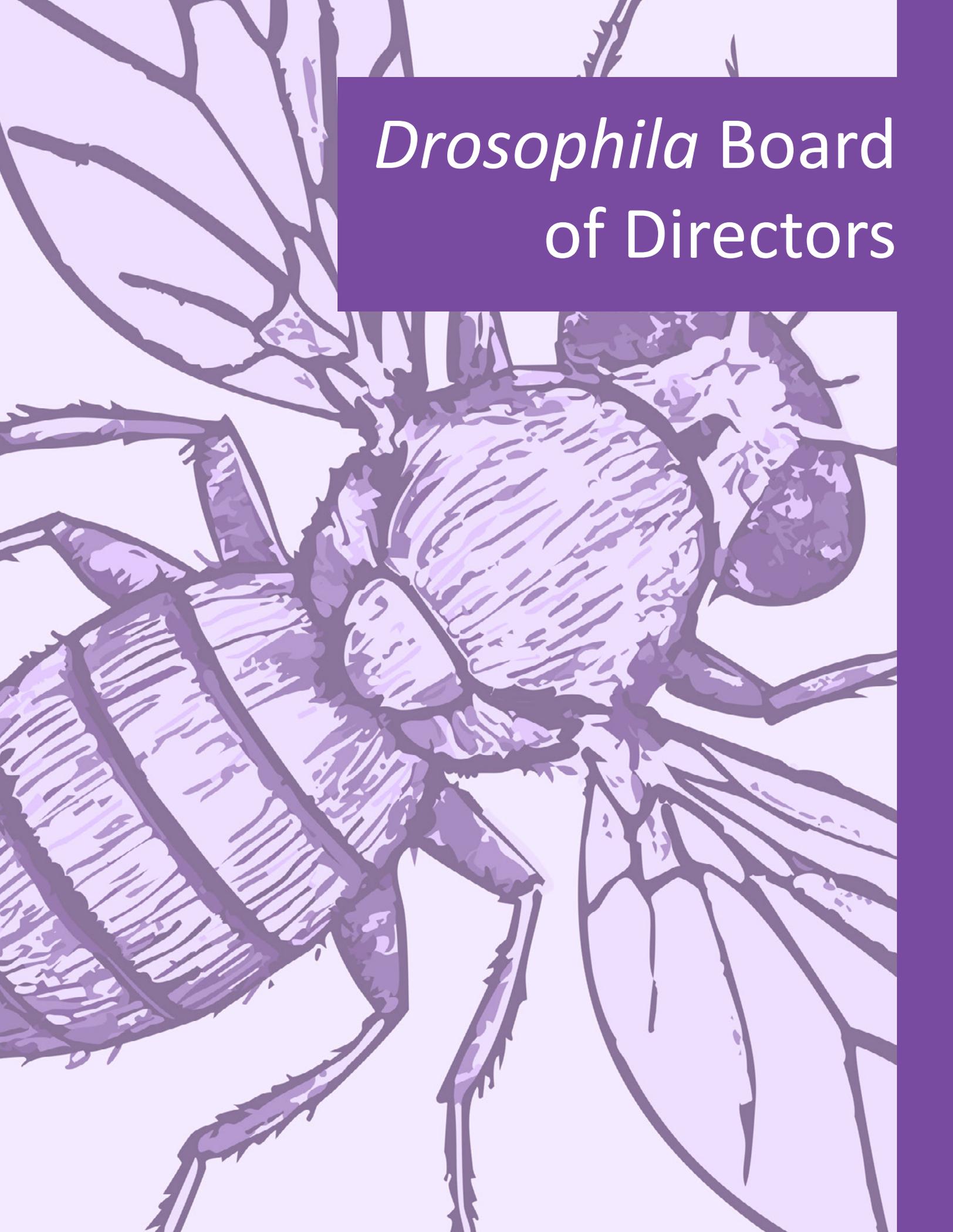
Early Career Representatives

Peiwei Chen
Taylar Mouton

Executive Director

Tracey DePellegrin

Drosophila Board
of Directors



https://wiki.flybase.org/wiki/FlyBase:Fly_Board

Officers

Name	Office	Year
Erika Bach	President-elect	2028-2029 (2026)
Eric Lai	President (2025-2026)	2027-2028 (2025)
Sally Horne-Badovinac	President (2024-2025)	2026-2027 (2024)
Harmit Malik	Past-President (2023-2024)	2025-2026 (2023)
Michelle Arbeitman	Past-Past-President (2022-2023)	2024-2025 (2022)
Jessica Treisman	Treasurer	2023-2026

Regional Representatives

Name	Region	Year
Rodrigo Fernandez-Gonzalez	Canada	2026-2027 (2025)
Laura Musselman	Great Lakes	2026-2027 (2025)
Laurel Raftery	Mountain	2025-2026 (2024)
Don Fox	Southeast	2026-2027 (2025)
Artyom Kopp	California	2027-2028 (2026)
Jocelyn McDonald	Heartland	2026-2027 (2025)
Barbara Mellone	New England	2025-2026 (2024)
Erika Matunis	Mid-Atlantic	2027-2028 (2026)
Daniela Drummond-Barbosa	Midwest	2026-2027 (2025)

Primarily Undergraduate Institution Representative

Name	Year
Ruth Johnson	2025-2026 (2024)

International Representatives

Name	Office	Year
Louise Cheng	Australia/Oceania	2025-2026 (2024)
Jiwon Shim	Asia	2027-2028 (2026)
Allison Bardin	Europe	2027-2028 (2026)
Nara Ewer	Latin America	2027-2028 (2026)

Postdoc and Student Representatives

Name	Role	Year
Shyama Nandakumar	Postdoc Representative	2025-2026 (2024)
Shefali Shefali	Student Representative	2025-2026 (2024)

Conference Organizers



Daria Siekhaus (*Co-chair*)



Pelin Volkan (*Co-chair*)



Cassandra Extavour



Rodrigo Fernandez-Gonzalez



Jacob Kagey



Akhila Rajan

Session Chairs

Elizabeth Ables

Maria Akhmanova

Julien Ayroles

Hua Bai

Mark Bitter

Elyse Bolterstein

Justin Bosch

Nichole Broderick

Maria Bustillo

Laura Buttitta

Dawn Chen

Jaeda Coutinho-Budd

Marcus D. Kilwein

Deena Damschroder

Fabio Demontis

Olivier Devergne

Anita Devineni

Nour El Osmani

Carolyn Elya

Tara Finegan

Yvonne Fondufe-Mittendorf

Brandon Fricker

Vladimir Gelfand

Lydia Grmai

Rob Harris

Kerui Huang

Bernard Kim

Maiko Kitaoka

Eric Lai

Kim McCall

Colleen McLaughlin

Shyama Nandakumar

Eric Ntiri

Pritika Pandey

Michael Perry

Beverly Piggott

Lindsey Price

Prashanth Rangan

Rebecca Stewart

Matt Ulgherait

Claudia Vasquez

Michael Welte

Adam Wong

Swathi Yadlapalli

Julia Zeitlinger

Sponsors



Conference Sponsors

Genetics Society of America and the organizers gratefully acknowledge the following sponsors:

Premier Sponsors



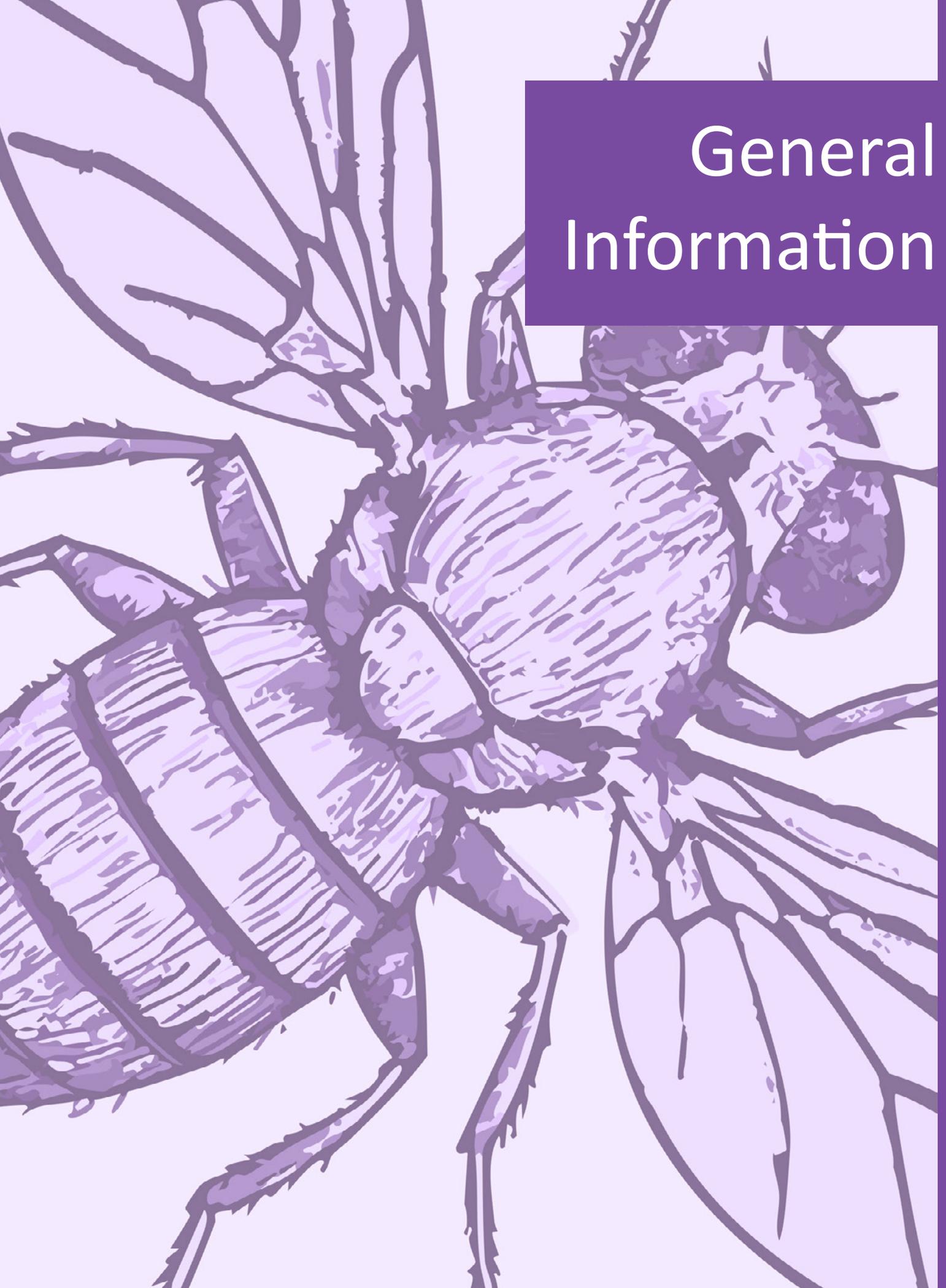
GENETICS

USBiological
Life Sciences

Sponsors



General Information



Conferences App

Download the [GSA Conferences App](#) to your smartphone (available on both iOS and Android platforms) to have meeting information at your fingertips. Once you download the App, you will not need an internet connection to access previously downloaded information. You will only need an internet connection to download updates. Android and Windows Mobile Device users can access the App through the web desktop version.

You can find your registration badge ID in your conference registration confirmation email, which was sent from GSA Conferences or NoReply@events.cdsreg.com.

Registration, Badges, and Pre-ordered T-shirts

Registrants were emailed their badge to print at home. Show your pre-printed badge to the registrar to collect your badge holder and lanyard. The Registration Desk will be open in the Sheraton Chicago Ballroom Foyer during the following hours:

Wednesday, March 4	3:00 p.m.–9:00 p.m.
Thursday, March 5	7:30 a.m.–5:00 p.m.
Friday, March 6	8:00 a.m.–5:00 p.m.
Saturday, March 7	8:00 a.m.–1:00 p.m.

For admission to all sessions, posters, the Exhibit Hall (Riverwalk), and mixers, attendees must be wearing their badge. Security will not allow individuals without them to enter the Exhibit Hall. If you lose your badge, you may request a replacement at the Registration Desk.

If you ordered a T-shirt in advance through the conference registration portal, you can pick it up at the GSA Registration Desk beginning Thursday, March 5, during registration hours. A limited quantity will be available for purchase at this location. T-shirts and other merch can be purchased at the GSA store (<https://shop.genetics-gsa.org/collections/dros26>).

Oral Presenters: Speaker Ready Room (Sheraton 1)

If you are giving an oral presentation (except in a workshop), you must load and check your presentation in the Speaker Ready Room the **day before** the start of your session. The room is located in Sheraton I and will be open during the following hours:

Wednesday, March 4	1:00 p.m.–4:00 p.m.
Thursday, March 5	7:00 a.m.–4:00 p.m.
Friday, March 6	7:00 a.m.–4:00 p.m.
Saturday, March 7	7:00 a.m.–4:00 p.m.

NOTE: Presentations cannot be uploaded in the meeting room; you must check in at the Speaker Ready Room. Workshop speakers should coordinate directly with the workshop organizers and should not upload their talks in the Speaker Ready Room.

Poster Presenters

All posters and exhibits will be in the Exhibit Hall. The hall will be open between the hours of 7:00 a.m. and 11:00 p.m., Thursday and Friday, and 7:00 a.m. to 3:30 p.m. on Saturday, for poster viewing. See the schedule below for times when authors will be presenting their poster. Security will be posted at the entrance to the hall, and only individuals with a badge will be admitted.

Poster Presentation Schedule

Thursday, March 5	8:00 a.m.	"T" Posters can be displayed
	2:00 p.m.–4:00 p.m.	"T" Poster presentations
	2:00 p.m.–3:00 p.m.	Even number presentations
	3:00 p.m.–4:00 p.m.	Odd number presentations
	10:00 p.m.	"T" posters must be removed
Friday, March 6	8:00 a.m.	"F" Posters can be displayed
	2:00 p.m.–4:00 p.m.	"F" Poster presentations
	2:00 p.m.–3:00 p.m.	Even number presentations
	3:00 p.m.–4:00 p.m.	Odd number presentations
	10:00 p.m.	"F" posters must be removed
Saturday, March 7	8:00 a.m.	"S" posters can be displayed
	1:30 p.m.–3:30 p.m.	"S" poster presentations
	1:30 p.m.–2:30 p.m.	Even poster presentations
	2:30 p.m.–3:30 p.m.	Odd poster presentations
	4:00 p.m.	"S" posters must be removed

All posters must be removed from poster boards by **4:00 p.m. on Saturday, March 7**. After that time, remaining posters will be removed and recycled. Posters may only be removed by their own authors. Posters that are not collected may not be taken by someone who is not an author on that poster.

Exhibits

Visit the Exhibit Hall to see the latest technology, lab equipment and supplies, and meet with exhibitors and GSA editors. Be sure to visit all of the companies who have come to support your science and show you how they can help advance your research. You can renew current relationships or meet potential future suppliers.

Wednesday, March 4	9:00 p.m.–10:00 p.m. Opening Mixer
Thursday, March 5	12:15 p.m.–4:15 p.m. Exhibits Open 2:00 p.m.–4:00 p.m. Poster Presentations
Friday, March 6	12:15 p.m.–4:15 p.m. Exhibits Open 2:00 p.m.–4:00 p.m. Poster Presentations
Saturday, March 7	12:00 p.m.–3:30 p.m. Exhibits Open 1:30 p.m.–3:30 p.m. Poster Presentations

GSA Central (Booth 601)

Stop by GSA Central in the Exhibit Hall to meet the GSA Journals staff and editors and let us know how the Society can better serve you. Learn about GSA programs and resources to help you grow and excel in your career. You can also sign up to meet one-on-one with an editor from GENETICS or G3.

Badge ribbons are available at GSA Central, including Job Seeker, Hiring, GENETICS Author, and G3 Author ribbons, and more.

Internet Access

Conference attendees will have access to free Wifi.

Network: MarriottBonvoy_Conference

Password: GSAFly26 (case sensitive)

Quiet Room (Pullman, Level 3)

This room is for those who would like to take a break, pray, meditate, or are looking for a quiet space to recharge. The room will be open to all conference attendees from 7:00 a.m. until 10:00 p.m., Wednesday through Saturday.

Professional Headshot Photographer

GSA members will have the opportunity to have professional headshots taken during poster and exhibit sessions. Appointments are required.

Security/Lost and Found

For all emergencies and lost and found items, contact the Sheraton Grand Chicago Riverwalk security by dialing 0 from any house phone. You can also request assistance at the conference Registration Desk.

Meals

Meals are not included in the conference registration fee but there are plenty of dining options at the hotel and within walking distance. The Guest Services Desk in the hotel lobby can give you a list of nearby options. There will also be cash concessions at breakfast and lunchtime on the fourth floor near the Sheraton Chicago Ballroom.

Family resources

Dros 2026 welcomes attendees with children!

Children are allowed in plenary, concurrent, and poster sessions; this includes babywearing of young children. There will also be monitors outside of those rooms in case you would rather watch sessions with your child without going into the room.

Those travelling with family members or caregivers who are not in the scientific community and not registered for the meeting can obtain a guest pass from the conference Registration Desk in the Sheraton Chicago Ballroom foyer so that they can accompany children into the poster sessions. All guests will be asked to agree to the [Conference Code of Conduct](#) and will need a name badge to enter the poster session. Guests must obtain their pass during posted registration hours.

To ensure the safety of all children in attendance and to create a productive and fulfilling meeting atmosphere for all attendees, we ask all parents and caregivers to abide by the following guidelines:

- Children ages 12 and under must be accompanied by an adult in all meeting areas.
- Parents and caregivers should do their best to ensure that children are not disruptive to any sessions they attend (including poster sessions). Large sessions will have seating at the back of the room reserved for attendees with children to allow for easy access into and out of the room. These seats will be clearly marked.
- For safety reasons, children are not allowed in the Exhibit/Poster Hall during set-up or break-down times.

Nursing Mothers Room

The conference hotel has two rooms for nursing mothers located on the lobby level (third floor) that are open 24/7.

Exhibitors



Exhibitor and Sponsor Information

GSA wishes to thank our fantastic group of exhibitor partners. Please be sure to visit the company representatives during the poster sessions.



Archon Scientific

info@archonscientific.com

archonscientific.com

Booth #402

Fly Food ready when you need it. For over a decade labs like yours have depended on us for high quality *Drosophila* media: pre-cooked with no preparation needed. With an emphasis on batch-to-batch consistency, robust inventory availability, and rapid shipping, your flies will love the original Fly Food Made Easy™.



Bloomington Drosophila Stock Center

flystock@iu.edu

<https://bdsc.indiana.edu/index/html>

Booth #205

The Bloomington Drosophila Stock Center maintains and distributes *Drosophila melanogaster* strains to labs all over the world. We carry over 90,000 stocks, which can be searched and ordered on our [website](#). Please come by! BDSC staff will be on hand to answer questions and take suggestions.



Darwin Chambers

brett.allen@darwinchambers.com

<https://www.darwinchambers.com/>

Booth #403

Darwin Chambers has designed, manufactured, and installed controlled environmental chambers for two decades. Independently owned and experiencing strong growth, we are trusted by academic and research institutions worldwide. Our IN Series chambers are widely used by *Drosophila* and mosquito researchers, offering state-of-the-art technology for a variety of studies.



Drobot Biotechnology Limited Company

service@drobot.com.tw

<http://drobot.com.tw>

Booth #301

DroBot develops prototyping devices. Guided by our core values of automation and consistency, we strive to optimize experimental workflows through the design, prototyping, and deployment of monitoring devices, as well as the analysis of both spontaneous and well-defined fly behaviors, extending to large-scale experimentation. Our solutions span precision-designed micro-chambers to fully integrated automated systems, complemented by intelligent data acquisition and analysis.



Developmental Studies Hybridoma Bank

dshb@uiowa.edu

<https://dshb.biology.uiowa.edu>

Booth #203

DSHB is the premier open-science antibody resource for the international research community, established with the support of NIH/NICHD in 1986. With over 5,000 antibodies available, DSHB remains committed to repositing and distributing important hybridomas and monoclonal antibodies at accessible prices to facilitate basic research and teaching.



POWERED BY BIOLYST

Electron Microscopy Sciences

info@biolyst.com

www.emsdiasum.com

Booth #304

Electron Microscopy Sciences will have on display their complete Nightsea System, along with our supplies and equipment for all fields of microscopy, biological research, and general laboratory requirements.



Drosophila Genomics Research Center

dgrc@iu.edu

<https://dgrc.bio.indiana.edu/home>

Booth #204

The Drosophila Genomics Resource Center (DGRC) provides essential resources for *Drosophila* research. Offering plasmids, cell lines, and protocols, the DGRC supports genetic, molecular, and cellular studies. Its mission is to advance scientific discovery by facilitating access to high-quality tools and fostering collaboration within the global *Drosophila* research community.



EMbody Biosignals

c.james@warwick.ac.uk

www.embody-biosignals.com

Booth #504

EMbody is about the development of fast, intelligent, and automatic diagnostic systems. Extracting markers of behaviour from various complex recording formats is our speciality. From our TrakBox system for worm tracking, and from TrakCam for recording *Drosophila* activity, we can extract multidimensional markers of behaviour from your data.



Genesee Scientific

mbrosche@geneseesci.com

<http://www.geneseesci.com>

Booth #401

As a leading life science company and global supplier to *Drosophila* research markets for decades, we offer a comprehensive product portfolio and exceptional customer service. At Genesee Scientific, we are your trusted *Drosophila* research partner and are committed to fueling your discoveries!



Genetics Society of America

genetics-gsa@thegsajournals.org

<https://academic.oup.com/>

Booth #601

Come explore the resources and opportunities that GSA has to offer; meet members of the GSA Staff and leadership; and find out about publishing in GENETICS and G3: Genes|Genomes|Genetics.



GSA Sponsored Headshot Photographer

jvelez@genetics-gsa.org

<http://genetics-gsa.org>

Booth #603

GSA members have the opportunity to have professional headshots taken during poster and exhibit sessions. Pre-registration is required.



Hybrigenics Services

bpasser@hybrigenics.com

<https://www.hybrigenics-services.com>

Booth #106

Hybrigenics provides an optimized yeast two-hybrid (Y2H) screening service backed by years of experience supporting the *Drosophila* research community. Our *Drosophila melanogaster* cDNA libraries include Adult head, Embryo, Larval brain, Ovary, Testis, and Third instar larvae. With over 700 customer publications, we're a trusted partner for high-quality, reliable results.

LabExpress

LabExpress

info@lab-express.com

<http://www.lab-express.com>

Booth #302

LabExpress has supported the fly research community for over 15 years, providing reliable, high-quality *Drosophila* supplies. We offer fresh weekly fly food and juice plates, food-making supplies, dry ingredients, and mixes, working closely with labs to meet their specific research needs.



miniPCR bio

team@minipcr.com

www.minipcr.com

Booth #201

We make tools for scientists. Whether you are holding a micropipette for the first time or defining the cutting edge of research, doing science requires high quality innovative solutions. Our team of molecular biologists, engineers, designers, and educators is dedicated to the mission of making science accessible to everyone, everywhere.

μP microPublication Biology

get your data out, be cited

microPublication Biology

editors@micropublication.org

www.micropublications.org

Booth #104

microPublication Biology is an Open Access journal that publishes peer-reviewed and curator-vetted short (single-figure) articles. Authors can finally get recognition for research that rarely makes it into the public domain. Come see how to publish your results quickly and easily!



Objective Biotechnology

jgrabau@objectivebiotechnology.com

www.objectivebiotechnology.com

Booth #202

Objective Biotechnology's mission is to develop novel scientific instruments that enable comprehensive measurement and manipulation of biological systems at multiple scales, unlocking new capabilities for researchers. At Dros 2026 we are exhibiting the Autoinjector, a robotic system that automates embryonic microinjection for flies, fish, and other organisms.



Parter Medical Products

info@partermedical.com

www.partermedical.com

Booth #501

Parter Medical Products, based in Southern California since 1984, is a preeminent Made-in-USA manufacturer of single-use plastic laboratory products and a provider of contract sterilization services using Ethylene Oxide and Electron Beam technologies. Parter's *Drosophila* Vials and Bottles are available in different types of plastic resin and packaging formats.

Powers Scientific, Inc.

Powers Scientific

kurt@powersscientific.com

www.powersscientific.com

Booth #502

Powers Scientific, Inc. offers a broad line of incubators with temperature, humidity, and lighting control, as well as vibration-reduction and fresh air intake for genetic research. Our chambers are individually made, tailored to suit individual's needs, and proudly built in the United States.



Percival Scientific

jcampidilli@percival-scientific.com

<http://www.percival-scientific.com>

Booth #404

Scientists have long trusted Percival's *Drosophila* chambers for rearing fruit flies and maintaining stock for research. We have designed them with a special phenolic coating to protect chamber components from the acidic environment of insect rearing. They give researchers precise control of lighting, temperature, and humidity for consistent performance.



Scikal Research LLC

gsadrc@scikal.com

www.scikal.com

Booth #102

Scikal Research accelerates your science by providing tailored services to generate high-quality, publication-ready data and novel assays. We specialize in instrumentation design-and-fabrication and standardization of *Drosophila* behavioral systems; and establishing optimized imaging and image/data analysis pipelines. Our in-house services include large-scale drug/genetic behavioral screens and -omics data analytics, specializing in spatial transcriptomics.



University of Minnesota Genomics Center

next-gen@umn.edu

www.genomics.umn.edu

Booth #303

The University of Minnesota Genomics Center supports academic and industry researchers worldwide by providing access to technologies and services. We offer *Drosophila* whole-genome sequencing and analysis for \$32 per sample, giving researchers a low-cost option for mutation and insertion mapping, CRISPR validation, structural variant detection, and strain authentication.



WellGenetics

info@wellgenetics.com

<http://www.wellgenetics.com>

Booth #506

WellGenetics is dedicated to providing professional research services in microinjection and gene knockout/knockin in fly. We are experts in molecular biology and in microinjection for generating a variety of genetic tools, such as gene deletion; point mutation; gene reports; tag knockin and RMCE knockin to level up your research quality.



Vienna Drosophila Resource Center

Office@vdr.c.at

<http://www.vdr.c.at>

Booth #503

The Vienna Drosophila Resource Center (www.vdr.c.at) is a nonprofit bioresource promoting scientific discoveries in *Drosophila*. We maintain over 30,000 different transgenic *D. melanogaster* stocks, which can be searched and ordered online, for distribution to labs worldwide. Additional services include private stock keeping, fly extract for cell culture and fly food.



Zantiks Ltd

info@zantiks.com

<http://www.zantiks.com>

Booth #605

Zantiks units enable researchers to measure *Drosophila* adult and larval behaviour, simply. Our low cost units provide multiple stimuli options including temperature control, vibration, lighting, audio, and food/liquid, and odour delivery. The compact units run standardised behavioural assays; locomotor, climbing, circadian rhythm, sleep studies, toxicology screening, startle, habituation, and PPI.

Conference Policies



Code of Conduct

This Code of Conduct covers in-person conferences, online conferences, and other online events hosted by the Genetics Society of America. GSA conferences include keynote presentations, concurrent sessions, live poster Q&A, workshops, and Q&A via Zoom chat.

GSA Conferences foster an international community of geneticists and provide an opportunity to discuss scientific advances and form new collaborations.

GSA values your attendance and wants to make your experience productive and inspiring by fostering an open exchange of ideas in a professional setting. Our Code of Conduct was established to communicate a transparent set of standards and guidelines for acceptable behavior at GSA Conferences and to provide a positive, safe, and welcoming environment for all attendees, vendors, volunteers, and staff.

All conference participants (regardless of their role) are expected to follow the Code of Conduct while attending any portion of the conference, including but not limited to keynote presentations, concurrent sessions, live poster Q&A sessions, and workshops. Because there is also a virtual nature to the conference, our Code of Conduct extends to communications related to the meeting and its attendees, presenters, exhibitors, sponsors, staff, and vendors. These types of communications include Zoom chat, Zoom Q&A window, live poster Q&A, email, social media, and texts.

Unacceptable Behaviors

Unacceptable behaviors include, but are not limited to:

- Intimidating, harassing, abusive, discriminatory, derogatory, or demeaning speech or actions by any participant and at all related events
- Harmful or prejudicial verbal or written comments or visual images related to gender, gender expression, gender identity, marital status, sexual orientation, race, religion, political orientation, socioeconomic standing, disability or ability status, or other personal characteristics, including those protected by law
- Inappropriate use of nudity and/or sexual images (including presentation slides, posters, Slack channels, or Zoom chat)
- Deliberate intimidation or stalking
- Violating the rules and regulations of the online provider, Zoom
- Sustained disruption of scientific sessions or other events
- Unwelcome and uninvited attention or contact
- Real or implied threat of physical harm
- Real or implied threat of professional or financial damage or harm
- Photographing or reproducing slides of oral presentations and posters without permission
- Recording of scientific and other sessions without permission

Taking action or making a report

To confidentially report a Code of Conduct violation or to file a complaint, including a complaint about a GSA volunteer or GSA staff member, please visit genetics-gsa.ethicspoint.com. To contact our Ethics Committee directly, please email Brenda Andrews, Chair, at Brenda.andrews@utoronto.ca. GSA staff is available to assist participants in making a report. Please email Tracey DePellegrin, GSA Executive Director, at tracey.depellegrin@genetics-gsa.org.

Consequences of non-compliance

Anyone asked by GSA staff, Organizer, Session Chair, Workshop Leader, Moderator, Presenter, or Zoom representative to stop unacceptable behavior is expected to comply immediately. Retaliation toward GSA or toward someone reporting an incident or after experiencing any of the following consequences will not be tolerated and may result in additional sanctions.

The consequences of non-compliance with GSA's Code of Conduct may include:

- Immediate removal from in-person meeting
- Immediate removal from accessing the online meeting
- Immediate removal from Slack channels and the meeting app without warning
- Restrictions from future GSA meeting attendance
- Termination of GSA membership or positions on GSA Boards or Committees
- Incidents may be reported to the proper authorities

Accessibility

GSA is committed to assisting attendees with special needs. If you have accessibility questions or requests please email gsaconferences@genetics-gsa.org. If you have difficulty walking long distances, consider renting a scooter from Scoot Around. They will deliver your scooter to your hotel and pick it up when you no longer need it. For more details, visit www.scootaround.com or call (888) 441-7575.

Diversity and Inclusion

GSA is committed to foregrounding equity, accessibility, and inclusion alongside scientific content, education, and professional development at each step of conference planning. We seek to create opportunities for all individuals to fulfill their scientific potential, regardless of their background, identity, or circumstances.

A commitment to inclusion leads to innovation by attracting the widest possible talent to the community and fostering greater diversity of ideas, approaches, and perspectives. The Allied Program Committee and the Community Organizers aim to select speakers and session chairs that represent the breadth and diversity of the discipline and conference participants. GSA especially encourages the Committee and Organizers to select excellent speakers from groups that have been historically excluded or marginalized in science.

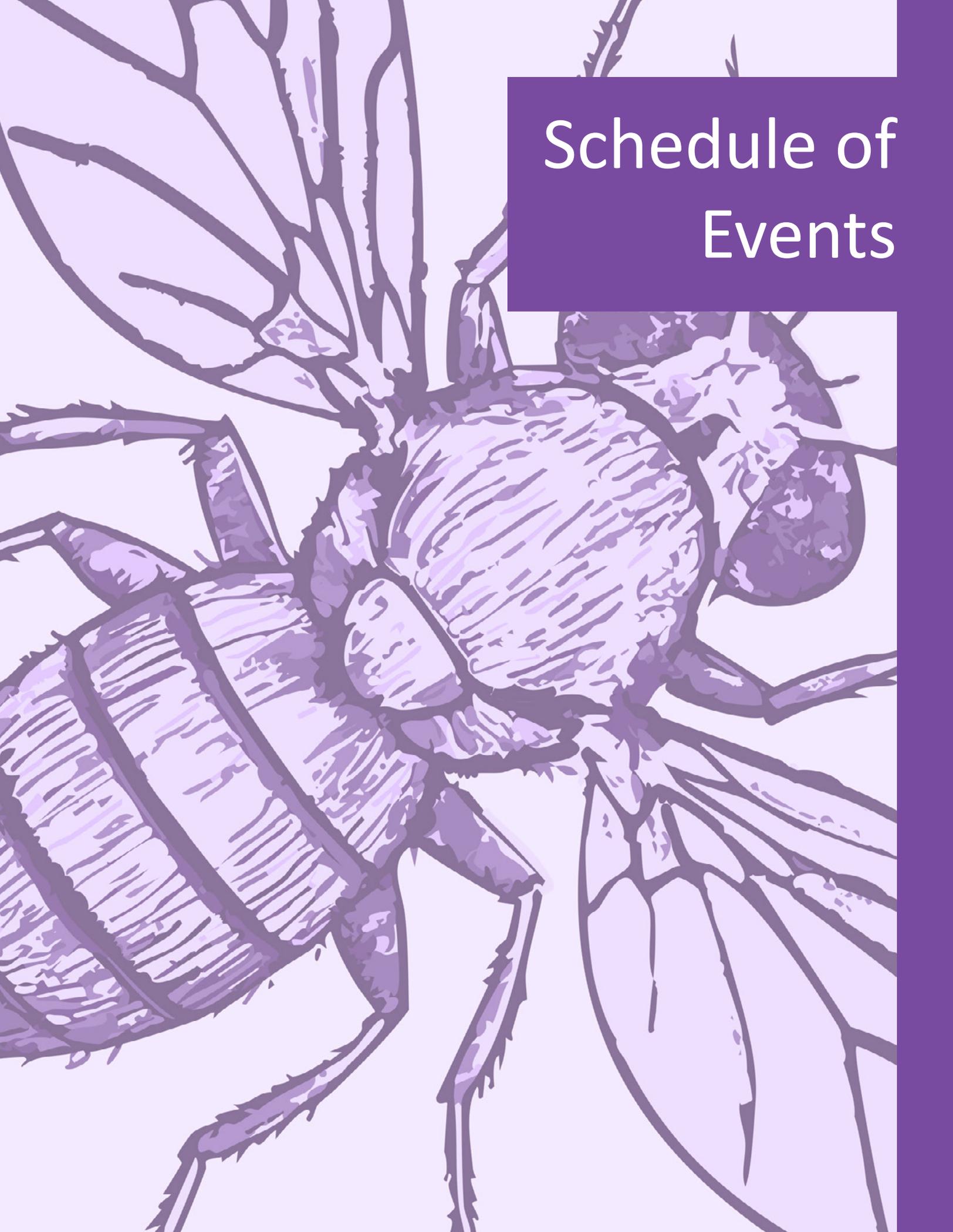
Social Media/Photo/Video Policy

Live posting of presentations on social media is allowed unless the speaker explicitly opts out by stating so at the start of his or her talk. Taking or sharing photos or videos of posters is permitted only with the presenter's consent during the assigned poster session. Taking photos of posters while the presenter is not present is strictly prohibited. By attending a GSA Conference, you grant GSA the right to use your photograph, video, name, and likeness for use in GSA educational, news, or promotional materials.

General Safety Tips for Attending Meetings

You should practice common sense safety guidelines when attending any conference:

- Be aware of your surroundings at all times, and don't get distracted by your phone.
- Use the buddy system when leaving the hotel, especially during early morning and late evening hours.
- Don't wear your meeting badge outside of the designated meeting space or when you leave the hotel.
- Don't carry a lot of cash or credit cards. Use the hotel room safe.
- Don't leave personal property unattended anywhere, at any time.

A detailed illustration of a fly, possibly a housefly, resting on a leaf. The fly is shown from a side-top perspective, with its wings spread. The illustration uses a color palette of various shades of purple and blue, with fine lines and cross-hatching for shading and texture. The background is a solid light purple. A dark purple rectangular box is positioned in the upper right corner, containing the text "Schedule of Events" in white.

Schedule of Events

Schedule of Events

All times are listed in Pacific Time

Wednesday, March 4, 2026

1:00 p.m.–4:00 p.m.	Speaker Ready Room	Sheraton 1, Level 4
1:00 p.m.–4:00 p.m.	<i>Drosophila</i> Board of Directors Meeting	Michigan, Level 2
1:00 p.m.–2:00 p.m.	Conference Success Tips and Welcome from GSA Engagement	Superior, Level 2
2:00 p.m.–2:30 p.m.	Getting Involved in GSA's Early Career Professional Development	Superior, Level 2
2:00 p.m.–4:00 p.m.	The Ecdysone Workshop	Erie, Level 2
3:00 p.m.–9:00 p.m.	Registration/Information Desk	Ballroom Promenade, Level 4
3:00 p.m.–4:00 p.m.	Individual Development Plan (IDP) and Career Exploration Workshop	Superior, Level 2
7:00 p.m.–9:00 p.m.	Opening General Session, Sandler Award Talk, and Keynote	Sheraton/Chicago 4-7, Level 4
9:00 p.m.–10:00 p.m.	Opening Mixer with Exhibitors	Riverwalk, Level 1

Thursday, March 5, 2026

7:00 a.m.–4:00 p.m.	Speaker Ready Room	Sheraton 1, Level 4
7:00 a.m.–11:00 p.m.	Posters Open	Riverwalk, Level 1
7:30 a.m.–5:00 p.m.	Registration/Information Desk	Ballroom Promenade, Level 4
8:30 a.m.–10:00 a.m.	Plenary Session I	Sheraton/Chicago 4-7, Level 4
10:00 a.m.–10:30 p.m.	Coffee Break	Ballroom Promenade, Level 4
10:30 p.m.–12:00 p.m.	Plenary Session II	Sheraton/Chicago 4-7, Level 4
1:00 p.m.–2:00 p.m.	Networking Hotspots-Career Advice	Riverwalk, Level 1

Schedule of Events

All times are listed in Pacific Time

Thursday, March 5, 2026 (continued)

1:00 p.m.–2:00 p.m.	GSA Journals Editor Hotspot	Riverwalk, Level 1
12:00 p.m.–2:00 p.m.	Bloomington Stock Center Advisory Board Meeting	Lincoln Boardroom, Level 3
12:15 p.m.–4:15 p.m.	Exhibits	Riverwalk, Level 1
12:30 p.m.–1:30 p.m.	GSA Conference Mentor Program Lunch	Michigan, Level 2
2:00 p.m.–4:00 p.m.	T Poster Presentations and Exhibits (2-3 Even, 3-4 odd)	Riverwalk, Level 1
4:30 p.m.–6:30 p.m.	Concurrent Platforms	
	Models of Human Disease I	Sheraton/Chicago 4-7, Level 4
	Patterning, Morphogenesis, and Organogenesis I	Chicago 9-10, Level 4
	Regulation of Gene Expression I	Sheraton 2-3, Level 4
8:00 p.m.–10:00 p.m.	Concurrent Workshops	
	Spotlight on Undergraduate Research	Michigan, Level 2
	Non-Traditional Fly Models in 2026: Contributions and Research Opportunities	Superior, Level 2
	Teaching with Purpose: Implementing the New Genetics Learning Framework	Mayfair, Level 2
	Single-cell Sequencing Resource in Drosophila: Generating Grant and Publication Figures without Coding	Erie, Level 2
	Networking Hotspots - Career Advice	Huron, Level 2

Friday, March 6, 2026

7:00 a.m.–4:00 p.m.	Speaker Ready Room	Sheraton 1, Level 4
7:30 a.m.–11:00 p.m.	Posters Open	Riverwalk, Level 1

Schedule of Events

All times are listed in Pacific Time

Friday, March 6, 2026 (continued)

8:00 a.m.–5:00 p.m.	Registration/Information Desk	Ballroom Promenade, Level 4
8:30 a.m.–10:00 a.m.	Concurrent Platforms II	
	Evolution I	Sheraton/Chicago 4-7, Level 4
	Cell Division, Growth, Stress, and Death	Sheraton 2-3, Level 4
	Stem Cells, Regeneration, and Tissue Injury I	Chicago 9-10, Level 4
10:00 a.m.–10:30 a.m.	Coffee Break	Ballroom Promenade, Level 4
10:30 a.m.–12:30 p.m.	Concurrent Platforms III	
	Physiology, Metabolism, and Aging I	Sheraton/Chicago 4-7, Level 4
	Reproduction and Gametogenesis I	Sheraton 2-3, Level 4
	Patterning, Morphogenesis, and Organogenesis I	Chicago 9-10, Level 4
12:45 p.m.–4:15 p.m.	Exhibits	Riverwalk, Level 1
12:30 p.m.–1:30 p.m.	GSA Journals Editorial Board Meeting	Mayfair, Level 2
2:00 p.m.–4:00 p.m.	F Poster Presentations and Exhibits (2-3 Even, 3-4 odd)	Riverwalk, Level 1

Schedule of Events

All times are listed in Pacific Time

Friday, March 6, 2026 (continued)

4:30 p.m.–6:30 p.m.	Concurrent Platforms IV	
	Cell Biology: Cytoskeleton, Organelles, and Trafficking I	Sheraton 2-3, Level 4
	Neural Development and Physiology	Chicago 9-10, Level 4
	Models of Human Disease II	Sheraton/Chicago 4-7, Level 4
8:00 p.m.–10:00 p.m.	Concurrent Workshops	
	Developmental Mechanics	Michigan, Level 2
	Everything You Ever Wanted to Know about Sex	Superior, Level 2
	From Molecular Biology to Evolution: the Multiple Facets of Transposable Elements in Drosophila Research	Mayfair, Level 2
	Reproducibility for Everyone	Erie, Level 2

Saturday, March 7, 2026

7:00 a.m.–4:00 p.m.	Speaker Ready Room	Sheraton 1, Level 4
7:00 a.m.–3:30 p.m.	Posters Open	Riverwalk, Level 1
7:30 a.m.–1:00 p.m.	Registration/Information Desk	Ballroom Promenade, Level 4
8:00 a.m.–10:00 a.m.	Concurrent Platforms V	
	Neural Circuits and Behaviors	Sheraton/Chicago 4-7, Level 4
	Chromatin, Epigenetics, and Genomics	Chicago 9-10, Level 4
	Cell Biology: Cytoskeleton, Organelles, and Trafficking II	Sheraton 2-3, Level 4

Schedule of Events

All times are listed in Pacific Time

Saturday, March 7, 2026 (continued)

10:30 a.m.–12:00 p.m.	Concurrent Platforms VI	
	Immunity and the Microbiome	Chicago 9-10, Level 4
	Reproduction and Ga.etogenesis II	Sheraton/Chicago 4-7, Level 4
	Regulation of Gene Expression II	Sheraton 2-3, Level 4
12:00 p.m.–3:00 p.m.	Exhibits	Riverwalk, Level 1
1:30 p.m.–3:30 p.m.	S Poster Presentations and Exhibits (1:30-2:30 Even, 2:30-3:30 odd)	Riverwalk, Level 1
4:00 p.m.–6:00 p.m.	Concurrent Platforms VII	
	Evolution II	Sheraton 2-3, Level 4
	Stem Cells, Regeneration, and Tissue Injury II	Chicago 9-10, Level 4
	Physiology, Metabolism, and Aging II	Sheraton/Chicago 4-7, Level 4
7:30 p.m.–9:30 p.m.	Techniques and Technology	Sheraton/Chicago 4-7, Level 4

Sunday, March 8, 2026

8:30 a.m.–10:30 a.m.	Closing Plenary and Bellen/Tasnier Award Talk	Sheraton/Chicago 4-7, Level 4
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Oral Presentation and Workshop Session Listings



Wednesday, March 4, 2026

1:00 p.m.–2:00 p.m.

Superior, Level 2

Conference Success Tips and Welcome from GSA Engagement

This event helps first-time conference attendees and early career scientists make the most of the conference. Topics covered may include introductions to meeting organizers, advice on having meaningful interactions in a virtual space, a chance to meet other attendees in an informal setting, and an introduction to scientific events and other conference programming.

Wednesday, March 4, 2026

2:00 p.m.–2:30 p.m.

Superior, Level 2

Getting Involved in GSA's Early Career Professional Development

Join GSA Early Career Leadership Program (ECLP) representatives, Presidential Members, and GSA Journals Peer Review Training Program members for a panel discussion about the benefits of participating in GSA's early career professional development programs.

Wednesday, March 4, 2026

2:00 p.m.–4:00 p.m.

Erie, Level 2

The Ecdysone Workshop

Organizers: Joanna Wardwell-Ozgo, Lydia Grmai, and Jacob Jaszczak

The Ecdysone Workshop has been a long tradition in the Annual *Drosophila* Research Conference (or the fly meeting) to highlight diverse roles of insect hormones (including but not limited to ecdysone, juvenile hormone, and peptide hormones such as insulin-like peptides) in development, reproduction, metabolism, behavior, and disease. Presentations mostly by trainees and new investigators highlight recent findings in insect endocrinology. The goal of this workshop is to bring together researchers from diverse research backgrounds who are interested in common insect hormones and foster discussion and collaboration among them.

Eisuke Imura, University of California, Riverside,
Steroid hormone-dependent glial-neuronal
interaction promotes brain development during
Drosophila metamorphosis

Linda L. Restifo, University of Arizona College of
Medicine – Tucson, The Apollo Mission that Launched
the Molecular Genetic Investigation of the Ecdysone
Signaling Cascade: a tribute to David S. Hogness
(1925-2019)

Nuria Romero, INSERM – Institute Sophia
Agrobiotech, Ecdysone Secretion in Non-Polarized
Cells: An Overlooked Cell Biology Question

So Sakamura, Department of Life Science Graduate
School of Science, University of Hyogo, Ecdysone
Signaling Determines Lateral Polarity to Form
Drosophila's Left-Right Brain Asymmetry

Krystal Goyins, University of Texas at San Antonio,
Investigating when, where and how Juvenile hormone
signaling supports fertility

Elizabeth Ables, East Carolina University, Ecdysone
signaling in the germline: a new model for an old
paradigm

Wednesday, March 4, 2026

3:00 p.m.–4:00 p.m.

Superior, Level 2

Individual Development Plan (IDP) and Career Exploration Workshop

This workshop will walk participants through the career exploration process by combining self-assessment exercises with IDP-informed strategies to break participants out of the linear career path. Participants will leave with a better understanding of their personal goals and how to ensure that their professional goals align with their values and needs.

Wednesday, March 4, 2026

7:00 p.m.–9:00 p.m.
Sheraton/Chicago 4-7

Opening General Session, Keynote, and Larry Sandler Memorial Lecture

Session Chairs: Daria Siekhaus, University of California, Los Angeles and Pelin Volkan, Duke University

7:00 a.m. Opening Session

7:30 a.m. Larry Sandler Award Presentation and
Lecture

7:35 a.m. A new paradigm for anti-parasitoid
immunity, **Rebecca Tarnopol**, UC Berkeley

1 8:00 a.m. Unlocking the Metabolic Mysteries of
Sleep, **Amita Sehgal**, The University of Pennsylvania

Thursday, March 5, 2026

8:30 a.m.–10:00 a.m.
Sheraton/Chicago 4-7

Plenary Session I

Session Chairs: Rodrigo Fernandez-Gonzalez, University of Toronto; Jacob Kagey, University of Detroit Mercy, United States; and Akhila Rajan, Fred Hutch, United States

8:30 a.m. Image Award Presentation

2 8:40 a.m. Invertebrate oncology: tumor-host
interactions in *Drosophila*, **David Bilder**, University of
California, Berkeley

3 9:05 a.m. Lineages, Time, and Diversity: Linking
Stem Cell Programs to Complex Behaviors, **Mubarak
Hussain Syed**, University of New Mexico

4 9:30 a.m. Cell competition and loser mutations
shape the competitive landscape of tumour cells,
Eugenia Piddini, University of Bristol

9:55 a.m. All about G3: Genes|Genomes|Genetics

Thursday, March 5, 2026

10:30 a.m.–12:00 p.m.
Sheraton/Chicago 4-7

Plenary Session II

Session Chairs: Rodrigo Fernandez-Gonzalez, University of Toronto; Jacob Kagey, University of Detroit Mercy, United States; and Akhila Rajan, Fred Hutch, United States

10:30 a.m. Community Service Awards

10:37 a.m. An update on GENETICS

5 10:45 a.m. Development of Neural Circuitry of the Lateral Accessory Lobe, a Center for Navigation and Motor Control in the *Drosophila* Brain, **Volker Hartenstein**, UCLA

6 11:10 a.m. Mechanisms of mitochondrial inheritance in the germline, **Thomas Hurd**, University of Toronto

7 11:35 a.m. *Drosophila* in context: evolution, toxins, and behaviour, **Justin Crocker**, EMBL

Thursday, March 5, 2026

4:30 p.m.–6:30 p.m.
Sheraton/Chicago 4-7

Models of Human Disease I

Session Chairs: Yvonne Fondufe-Mittendorf, Van Andel Institute, United States; Fabio Demontis, St. Jude Children's Research Hospital, United States; and Nour El Osmani, Van Andel Institute, United States

8 4:30 p.m. Injury-induced tau pathology promotes aggressive behavior in *Drosophila* without neurodegeneration, **Kassandra Ori-McKenney**, University of California, Davis

9 4:45 p.m. EHMT1/G9a controls sleep maintenance in adulthood by regulating ROS homeostasis in insulin-producing cells during development, **Mireia Coll-Tané**, Radboudumc

10 5:00 p.m. Pathogenic CryAB Mutations in Muscle Suggest a Novel Mechanism for Amyloid Spread via Extracellular Vesicles, **Erika Geisbrecht**, Kansas State University

11 5:15 p.m. Exercise rescues shortened lifespan and impaired muscle function in a new *Drosophila* model of chronic inactivity, **Alyson Sujkowski**, Wayne State University

12 5:30 p.m. A conserved role for *Sec16/SEC16A* in the nervous system: Identification of a novel human neurodevelopmental disorder, **Mengqi Ma**, Baylor College of Medicine

13 5:45 p.m. A rare recurring gain-of-function variant in *BMP2* causes neurodevelopmental phenotypes in humans and flies, **Jung-Wan Mok**, Baylor College of Medicine

14 6:00 p.m. A developmental role for synaptic adhesion molecules in adult hypersomnia in flies, fish, and humans, **Kyla Mace**, Perelman School of Medicine

15 6:15 p.m. *Drosophila* UBE3A Regulates Substrates Associated with Gliopathic Seizures Through Direct Ubiquitination of Translation Initiation and Ubiquitin Proteasome Proteins, **Benjamin Geier**, Tulane University

Thursday, March 5, 2026

4:30 p.m.–6:30 p.m.
Chicago 9-10, Level 4

Patterning, Morphogenesis, and Organogenesis I

Session Chairs: Claudia Vasquez, University of Washington, United States; Tara Finegan, University of Missouri, United States; and Maria Bustillo, NYU Grossman School of Medicine, United States

16 4:30 p.m. Genetic identification of miRNAs that can alter sensory organ cell fate and Notch signaling. **Rebecca Stewart**, Memorial Sloan Kettering Cancer Center

17 4:45 p.m. Evolutionary diversification of the gap gene network of flies, **Abubacarr Jalloh**, University of Chicago

18 5:00 p.m. Biomolecular condensates regulate myosin II dynamics during tubular organ morphogenesis, **Ji Hoon Kim**, Johns Hopkins University

19 5:15 p.m. The extracellular protease *AdamTS-B* plays an important role in proper tracheal tube formation during *Drosophila* embryogenesis, **Muna Abdullahi**, University of St. Thomas

20 5:30 p.m. Cell-intrinsic micropeptide timer: transiency of Pri peptide defines the duration of cell fate induction, **Sonoko Mizuno**, RIKEN

21 5:45 p.m. $G\alpha_q$ controls organ size and developmental timing in *Drosophila*, **Maria Unger**, University of Notre Dame du lac

22 6:00 p.m. Mechanistic Insights into the Role of Hedgehog Signaling in Ventral Eye Specification in *Drosophila*, **Santosh Kumar**, University of Dayton

23 6:15 p.m. Identifying the morphogenetic principles of tubular organogenesis in vivo, **Michelle Chicas**, University of Washington

Thursday, March 5, 2026

4:30 p.m.–6:30 p.m.
Sheraton 2-3, Level 4

Regulation of Gene Expression I

Session Chairs: Eric Lai, Memorial Sloan Kettering Cancer Center, United States; Laura Buttitta, University of Michigan; and Deena Damschroder, University of Michigan, United States

24 4:30 p.m. Rapid transcriptional response to a dynamic morphogen by time integration, **Susanna Brantley**, Duke University

25 4:45 p.m. Deep learning models reveal separable sequence rules for chromatin accessibility and enhancer activation in *Drosophila*, **Haining Jiang**, Stowers Institute for Medical Research

26 5:00 p.m. Beyond the Nuclear Pore: A role for Nup153 in transcriptional regulation during development, **Yadwinder Kaur**, University of Wisconsin–Madison

27 5:15 p.m. Decoding regulatory genome of *Drosophila* brain, **Xiao Li**, Princeton University

28 5:30 p.m. Relative Enhancer-Promoter Configuration Impacts Transcriptional Dynamics in *Drosophila* Embryos, **Bomyi Lim**, University of Pennsylvania

29 5:45 p.m. Balancing precision with plasticity: Redefining the roles of transcription factors in early cell fate specification, **Shiva Abbasi**, Department of Biology, University of Texas at Arlington

30 6:00 p.m. Quantitative analysis of the Notch transcriptional response using synthetic biology and *Drosophila* genetics, **Matthew Stocker**, Cincinnati Children's Hospital Medical Center

31 6:15 p.m. Hedgehog signaling coordinates stereotyped and stochastic patterns in the *Drosophila* eye, **Alison Ordway**, Johns Hopkins University

Thursday, March 5, 2026

8:00 p.m.–10:00 p.m.

Superior, Level 2

Non-Traditional Fly Models in 2026: Contributions and Research Opportunities

Organizers: Ellie Heckscher and Urs Schmidt-Ott

With hundreds of thousands of fly species living in vastly different habitats, dipterans are an amazing natural laboratory. Work in Drosophilids and mosquito species has led to important biological insights.

Many research areas can benefit from studies across a wider range of species. Researchers are taking advantage of non-traditional fly models, but they lack their own forum. In this workshop, six speakers will have 15-minute slots to present their research, covering topics that span evolutionary biology, neurodevelopment, genetics, and methodologies.

The goals are to foster this nascent community and encourage young scientists to think beyond the well-studied dipteran models.

8:00 p.m. Introduction

8:05 p.m. Lisa Fenk, Max Planck Institute for Biological Intelligence, Active vision evolved via sequential innovations preserved across Diptera

8:20 p.m. Rob Baird, Massachusetts Institute of Technology, Satellite DNA and germ line in *Bradysia* (*Sciara*) *coprophila*

8:35 p.m. Ayse Tenger-Trolander, University of Chicago, Genomic resources and orphan genes in the scuttle fly *Megaselia abdita*

8:50 p.m. Five-minute break

8:55 p.m. Marc Halfon, University at Buffalo-SUNY, Studying gene regulation in *Aedes* and *Megaselia*

9:10 p.m. Sam Swank, University of Chicago, Mechanisms of ecomorphological diversity across larval Diptera

9:25 p.m. Darren Williams, Kings College London, Nervous system evolution in flightless flies

9:40 p.m. Albert Erives, University of Iowa, Evolution of sensory neurobiology via the radiation of schizophoran flies

9:55 p.m. General Discussion

Thursday, March 5, 2026

8:00 p.m.–10:00 p.m.

Huron, Level 2

Networking Hotspots – Career Advice

Organizers: Daria Siekhaus, Pelin Volkan, Madhulika Rai, Prash Rangan, and Don Fox

- 1) How to become faculty-ready (Madhulika Rai)
- 2) How to survive as junior faculty (Pelin Volkan and Prash Rangan)
- 3) How to survive as faculty at any stage in this funding environment (Don Fox)
- 4) How to take your career abroad (Daria Siekhaus)

Thursday, March 5, 2026

8:00 p.m.–10:00 p.m.

Erie, Level 2

Single-cell Sequencing Resource in *Drosophila*: Generating Grant and Publication Figures without Coding

Organizers: Hongjie Li, Tzu-Chiao Lu, Ye-Jin Park, and Tyler Jackson

In the past decade, single-cell technology has revolutionized *Drosophila* research, yielding numerous valuable datasets from individual labs and initiatives like the Fly Cell Atlas. However, many researchers struggle to navigate platforms such as SCoPe, UCSC Cell Browser, EPFL ASAP, EBI Single Cell Atlas, and CZI CellxGene platforms. This workshop will highlight hands-on training to generate grant and publication figures without coding using available public data based on the CellxGene platform.

8:00 p.m. Hongjie Li, Baylor College of Medicine
Title: Overview of single-cell research and resource in *Drosophila*

8:10 p.m. Ye-Jin Park and Niccole Auld, Baylor College of Medicine
Title: Basic functions of CellxGene: cell type, gene expression, DEG analysis and more

8:40 p.m. Tyler Jackson and Bo Sun, Baylor College of Medicine
Title: The VIP functions of CellxGene: plotting figures

9:10 p.m. Tzu-Chiao Lu and Zhiyong Yin, Baylor College of Medicine
Title: Key steps of analyzing your own single-cell data using CellxGene

9:40 p.m. All speakers
Open questions and hands-on training

Thursday, March 5, 2026

8:00 p.m.–10:00 p.m.

Michigan, Level 2

Spotlight on Undergraduate Research

Organizers: Elyse Bolterstein, Olivier Devergne, Jacob Kagey, and Lindsey Price

8:00 p.m. Jennifer A. Kennell
Title: From genotype to phenotype: generating novel mutations in doublesex using CRISPR/Cas9 in an undergraduate laboratory course

8:15 p.m. Jamie Siders
Title: Expanding undergraduate research experiences through the Fly-CURE: A collaborative *Drosophila* genetics network

8:30 p.m. John Clancy
Title: Activation of BMP signaling and transcriptional target Trio modify ALS models in *Drosophila melanogaster*

8:45 p.m. Caroline Wong
Title: Role of a novel transmembrane protein in localizing a visual signaling complex to the light-sensing compartments

9:00 p.m. Catherine Nguyen
Title: Exploring histone locus body initiation mechanisms throughout development

9:15 p.m. Cooper Stringer
Title: Generalizable non-canonical secretion of a novel amphipathic α -helical peptide

9:30 p.m. Katherine Farfan
Title: Impaired Glial Phagocytosis Leads to Neuroinflammation and Neurodegeneration in Aging *Drosophila*

9:45 p.m. Nanati Safawo
Title: From Surface to Signal: Substrate-Dependent Formation of the Axon Initial Segment in *Drosophila* Neurons

Thursday, March 5, 2026

8:00 p.m.–10:00 p.m.

Mayfair, Level 2

Organizers: Elyse Bolterstein, Olivier Devergne, Jacob Kagey, and Lindsey Price

Teaching with Purpose: Implementing the New Genetics Learning Framework

Organizers: Tamar Resnick, Andrea Kalis, Noveera Ahmed, Jenny Tenlen, and Nicole Crown

This interactive workshop will help faculty understand and apply the newly updated Genetics Learning Framework in their courses. Participants will be introduced to this resource, engage in collaborative activities to align course content, develop ideas for applications, and share teaching strategies. The session will support faculty from diverse institutions and educational contexts in translating the learning objectives into meaningful classroom practice. Guided questions will structure discussion around what areas of genetics are the most important to a particular course context, how the framing of genetics concepts impacts students' identities and views on topics of societal significance, and more.

Welcome & Overview (15 minutes): Introduction to the new Genetics Learning Framework and workshop goals

Discussion (30 minutes): In small groups, participants will familiarize themselves with the updated learning framework, discuss guiding questions (provided by the organizers) on how the framework may be applied to various educational contexts, and generate questions to clarify their understanding of the resource and its potential uses.

Discussion debrief (10 minutes): Small groups share highlights of their discussions and ask questions of the Education Committee members about the Learning Framework resource.

Break and Group Formation (5 minutes): Participants arrange into small groups according to interest for the second discussion.

Broad view of genetics concepts within a curriculum

Societal impacts of genetics concepts

Systems biology and complex genetic interactions

Methods, tools, and research practice in genetics

Outcome-Based Activity Design (30 minutes): Each group picks one learning outcome and brainstorms teaching activities, assessments, and implementation strategies. Discuss guiding questions (provided by the organizers) on how the Learning Framework can support a variety of curricular projects. Groups will focus in certain key areas, especially related to parts of the Framework that have been more significantly adapted since the previous version.

Share and Peer Feedback (20 minutes): Groups share their ideas for application of the Learning Framework

Wrap-Up and Next Steps (10 minutes): Summary of key takeaways and invitation to join a post-workshop resource-sharing group

Friday, March 6, 2026

8:30 a.m.–10:00 a.m.
Sheraton 2-3, Level 4

Cell Division, Growth, Stress, and Death

Session Chairs: Matt Ulgherait, University of North Carolina, United States; Kim McCall, Boston University; Pritika Pandey, University of North Carolina, United States; and Maria Akhmanova, Memorial Sloan Kettering Cancer Center

32 8:30 a.m. Splicing regulator Acn suppresses neurodegeneration by moonlighting as a cytosolic activator of autophagy in a TOR-independent pathway, **Nilay Nandi**, University of Texas Southwestern Medical Center

33 8:45 a.m. Proteostasis & Therapeutic Target Discovery: Mapping VCP Cofactor Specificity Under Glycosylation Stress in Rare Disease Models of DPAGT1-Congenital Disorder of Glycosylation, **Mandi Wild**, University of Kansas

34 9:00 a.m. The Chemical Fly Cell Atlas: A Single-Nucleus Map of Systemic Xenobiotic Responses in *Drosophila*, **Shangyu Gong**, Huffington Center on Aging, Baylor College of Medicine

35 9:15 a.m. A Ubiquitous Sphere of Influence: Defining the Roles, Partners and Targets of E3 Ligases in Synaptonemal Complex Function during Meiosis, **Jeremy Burton**, University of Georgia

36 9:30 a.m. Neighboring cells support dividing cells to preserve epithelial architecture in the *Drosophila* wing imaginal disc, **Liyuan Sui**, TUD

37 9:45 a.m. Yorkie Activation Restores Epithelial Integrity in Neoplastic Tumors of *Drosophila* Wing Discs, **Vanessa Ghorayeb**, University of Toronto

Friday, March 6, 2026

8:30 a.m.–10:00 a.m.
Sheraton/Chicago 4-7

Evolution I

Session Chairs: Michael Perry, University of California, San Diego, United States; Julien Ayroles, University of California, Berkeley; and Mark Bitter, Stanford University, United States

38 8:30 a.m. A fast-evolving C-terminus underlies species-specific function of an orphan gene required for sperm nuclear shaping, **Grace Ryan**, College of the Holy Cross

39 8:45 a.m. Uncovering the mechanism behind female meiotic drive of B chromosomes in *D. melanogaster*, **Kaylah Samuelson**, University of Connecticut

40 9:00 a.m. Morphological innovation without gene co-option: the *Drosophila* sex comb evolved via changes in developmental tempo and energy metabolism, **Ben Hopkins**, University of Florida

41 9:15 a.m. Distinct ancestral origins and limited repeatability of clinal variation between South America and other continents, **Tiago da Silva Ribeiro**, Universidade de Sao Paulo

42 9:30 a.m. Replication-Enhanced Detection of Quantitative Traits under Adaptation (REDQuanTA): an improved statistical framework to detect locally adaptive traits, **Siyuan Feng**, University of Wisconsin-Madison

43 9:45 a.m. The coevolutionary dynamics of transposable elements and their hosts in *Drosophila*, **Sarah Signor**, North Dakota State University

Friday, March 6, 2026

8:30 a.m.–10:00 a.m.
Chicago 9-10, Level 4

Stem Cells, Regeneration, and Tissue Injury I

Session Chairs: Robin Harris, Arizona State University; Elizabeth Ables, East Carolina University, United States; and Shyama Nandakumar, University of Pittsburgh, United States

44 8:30 a.m. Investigating the early damage response in *Drosophila* wing imaginal disc regeneration, **Snigdha Mathure**, University of Illinois at Urbana-Champaign

45 8:45 a.m. Netrins are involved in the epithelial wound response in *Drosophila* and zebrafish, **Lachlan Wallace**, The University of Melbourne

46 9:00 a.m. Damage recognition by intestinal stem cells via Draper-Src-Shark-STAT signalling promotes adult *Drosophila* midgut regeneration, **Martina Legido**, University of Bristol

47 9:15 a.m. Grainyhead regulates wound-induced polyploidization in *Drosophila*, **Lydia Bischoff**, Boston College

48 9:30 a.m. The Role of Hemocytes in Regeneration Following Necrotic Ablation, **Maksym Dankovskyy**, Arizona State University

49 9:45 a.m. The *Drosophila* proventriculus lacks stem cells but compensates for age-related cell loss via endoreplication-mediated cell growth, **Benjamin Ewen-Campen**, Harvard Medical School

Friday, March 6, 2026

10:30 a.m.–12:30 p.m.
Chicago 9-10, Level 4

Patterning, Morphogenesis, and Organogenesis I

Session Chairs: Claudia Vasquez, University of Washington, United States; Tara Finegan, University of Missouri, United States; and Maria Bustillo, NYU Grossman School of Medicine, United States

50 10:30 a.m. Hippo signaling regulates cuticle pigmentation and dopamine metabolism in *Drosophila*, **Shelley Gibson**, Baylor College of Medicine

51 10:45 a.m. 3D Chiral Morphogenesis of the Embryonic Midgut, **Avi Strok**, University of Chicago

52 11:00 a.m. Puratrophin-1–like RhoGEF controls epithelial morphogenesis during *Drosophila* development, **SeYeon Chung**, Louisiana State University

53 11:15 a.m. Developmentally regulated changes in basement membrane composition affect matrix viscoelasticity and tissue morphogenesis, **Victoria Hoznek**, University of Chicago

54 11:30 a.m. Innexins orchestrate border-cell specification and delamination via channel-dependent and channel-independent mechanisms, **Guangxia Miao**, Florida State University

55 11:45 a.m. Activation versus repression: evolutionary rewiring of the gene regulatory network to establish head-to-tail polarity in flies, **Muzi Li**, University of Chicago

56 12:00 p.m. Drop regulates cell shape change and arrangement to coordinate tissue internalization in early salivary gland development, **Matthew Elliott**, Johns Hopkins University

57 12:15 p.m. Rap1 Activity during Cellularization is Essential for Ventral Furrow Formation, **Amruta Nayak**, University of Chicago

Friday, March 6, 2026

10:30 a.m.–12:30 p.m.
Sheraton/Chicago 4-7

Physiology, Metabolism, and Aging I

Session Chairs: Hua Bai, Iowa State University; Swathi Yadlapalli, University of Michigan, United States; and Kerui Huang, Harvard Medical School, United States

58 10:30 a.m. The lean that lasts: Investigating the mechanisms driving TRE-induced fat loss, **Jared Gatto**, Columbia University Medical Center

59 10:45 a.m. Dgat2 modulates lipid dysmetabolism and neuroinflammation associated with Alzheimer's Disease, **Archana Yadav**, University of Alabama at Birmingham

60 11:00 a.m. Microbiome influence on brain transcription programs during aging revealed by single-cell analysis in *Drosophila*, **Adam Chun-Nin Wong**, University of Florida

61 11:15 a.m. Single-cell transcriptomics of the renal tubule reveals cell type-specific ferroptosis in aging, **Ruiqi Liu**, Iowa State University

62 11:30 a.m. Widespread Cellular Atrophy Emerges Early in the Aging *Drosophila* Brain, **Deena Damschroder**, University of Michigan

63 11:45 a.m. Elevated Wnt, Ca²⁺, and JNK signaling hyperactivates migration of intestinal stem cells during aging, **Clare Favela**, Loyola University Chicago

64 12:00 p.m. Hunger induces a starvation-like state in the gut, fat body, and oenocytes that extends lifespan, **Clancy Short**, University of Michigan

65 12:15 p.m. Loss of DOR drives aging and cellular senescence in *Drosophila melanogaster*, **Dipti Verma**, Buck Institute for Research on Aging

Friday, March 6, 2026

10:30 a.m.–12:30 p.m.
Sheraton 2-3, Level 4

Reproduction and Gametogenesis I

Session Chairs: Prashanth Rangan, Icahn School of Medicine at Mount Sinai, United States; and Lydia Grmai, Yale University; and Maiko Kitaoka, Whitehead Institute for Biological Research, United States

66 10:30 a.m. Investigating somatic cyst cell dynamics under homeostasis and following germline stem cell loss, **Hao Lin**, Drexel University

67 10:45 a.m. Investigating how Smooth represses *cdc25/twine* translation to delay the meiotic divisions in the *Drosophila* male germline, **Cordelia Li**, Stanford University

68 11:00 a.m. ILP8 serves as a mature follicle sensor to prevent excessive accumulation of mature follicles in *Drosophila* ovaries and oocyte aging, **Natalie Aloisio**, University of Connecticut

69 11:15 a.m. An *in silico* screen identifies the correct ortholog of the meiotic double-strand break protein TOPOIVBL in *Drosophila*, **K. Nicole Crown**, Case Western Reserve University

70 11:30 a.m. Harnessing CRISPR/Cas13 for Temporal Control of Gene Expression in Late-Stage Spermatogenesis, **Colby Luiz**, The National Institutes of Health

71 11:45 a.m. Investigating the contribution of male- and female-derived proteins to sperm reproductive success, **Melissa Mychalczuk**, Cornell University

72 12:00 p.m. Fusome regeneration and asymmetry in female germline stem cells relies on importin-dependent microtubule reorganization, **Amanda Powell**, East Carolina University

73 12:15 p.m. Proximity Biotinylation identifies novel interactors of male germline promoting factor Tdrd51 in testes, **Joseph Dixon**, Johns Hopkins

Friday, March 6, 2026

4:30 p.m.–6:30 p.m.
Sheraton 2-3, Level 4

Cell Biology: Cytoskeleton, Organelles, and Trafficking I

Session Chairs: Michael Welte, University of Rochester, United States; Vladimir Gelfand, Northwestern University Feinberg School of Medicine, United States; and Marcus Kilwein, Princeton University

74 4:30 p.m. Asymmetric centromere and gene locus positioning in *Drosophila* neural stem cells, **Jennifer Taylor**, University of Washington

75 4:45 p.m. Uncoordinated-76, essential for neurite outgrowth, is a regulator of microtubule–microtubule sliding by kinesin-1, **Shannon Liang**, Northwestern University Feinberg School of Medicine

76 5:00 p.m. Elucidating the Structural and Functional Roles of Sarcalumenin, a Key Component of the Muscle Fiber Sarcoplasmic Reticulum, **Eyal Schejter**, Weizmann Institute of Science

77 5:15 p.m. The Autophagy Protein Blue Cheese Affects Nuclear Spacing in Muscle Cells, **Madisen Caferro**, Boston College

78 5:30 p.m. Investigate the role of condensate formation in actin organization during myoblast fusion, **Danqing Tong**, University of Texas Southwestern Medical Center

79 5:45 p.m. Tissue geometry and mechanochemical feedback initiate rotational collective migration in *Drosophila*, **Sierra Schwabach**, University of Chicago

80 6:00 p.m. To Be or Not to Be an Oocyte: Msps/XMAP215 Controls Oocyte Cell Fate in the *Drosophila* Ovary, **Wen Lu**, Feinberg School of Medicine, Northwestern University

81 6:15 p.m. A new microtubule population critical for sperm development, **Emma Burns**, National Institutes of Health

Friday, March 6, 2026

4:30 p.m.–6:30 p.m.
Sheraton/Chicago 4-7

Models of Human Disease II

Session Chairs: Yvonne Fondufe-Mittendorf, Van Andel Institute, United States; Fabio Demontis, St. Jude Children’s Research Hospital, United States; and Nour El Osmani, Van Andel Institute, United States

82 4:30 p.m. The use of *Drosophila* models of rare muscular dystrophy identified drug repurposing candidates for personalized medicine, **Lori Wallrath**, University of Iowa

83 4:45 p.m. An Innovative *Drosophila* Model of Lipid Storage Myopathy Recapitulates Critical Disease Hallmarks and Reveals Therapeutic Potential of Moderate Exercise, **Sachin Budhathoki**, The University of Alabama at Birmingham

84 5:00 p.m. Regulation of ETS Signaling Governs Developmental Remodeling and Hypertrophy in the *Drosophila* Heart, **Katya Marchetti**, Sanford Burnham Prebys Medical Discovery Institute

85 5:15 p.m. Functional analysis of O-GlcNAc in sleep and circadian rhythm in *Drosophila*, **Kristy Jay**, Mass General Brigham

86 5:30 p.m. Intellectual disability disease modeling in flies uncovers new regulators of synaptic function and plasticity, **Sibani Nachadalingam**, Washington University School of Medicine in St. Louis

87 5:45 p.m. Tumor-Host Fly Cell Atlas: Mapping Tumor-Induced Systemic Remodeling at Single-Cell Resolution, **Hongcun Bao**, Tulane University

88 6:00 p.m. Investigating neurodevelopmental disorder variants in *HNRNPUL2* using *Drosophila* models, **Melanie Mew**, Baylor College of Medicine

89 6:15 p.m. Genetic Drivers *PSMC3*, *SEC16B*, and *HTR2A* Underlie Obesity-Induced Dysregulation of Cardiac-Circadian Synchrony, **Sajal Kumar Halder**, UAB

Friday, March 6, 2026

4:30 p.m.–6:30 p.m.
Chicago 9-10, Level 4

Neural Development and Physiology

Session Chairs: Beverly Piggott, University of Montana, United States; Jaeda Coutinho-Budd, University of Virginia, United States; and Colleen McLaughlin, Stanford University

90 4:30 p.m. Serine/Threonine protein phosphatase 1(PP1) is a regulator of notch signalling, **Jiban Barman**, Centre for DNA Fingerprinting and Diagnostics (CDFD)

91 4:45 p.m. Hemilineage-specific deployment of the pro-apoptotic RHG genes *reaper* and *grim* during neurogenesis sculpts segment and sex-specific neural network composition in *Drosophila*, **Connor Sproston**, King's College London

92 5:00 p.m. Tweek promotes ER–plasma membrane contact formation to support astrocyte phagocytosis during neuronal remodeling, **Yunsik Kang**, University of Colorado School of Medicine

93 5:15 p.m. A Roundabout guidance receptor code is regulated by early temporal transcription factors to coordinate the circuit wiring of sensory processing interneurons, **Jake Henderson**, University of Chicago

94 5:30 p.m. Expanding the role of *Dscam1* in regulating dendrite tiling and cross-class repulsion, **Chun Ting Yeh**, Cornell University

95 5:45 p.m. Identification of a novel transcription factor *giraffe* that regulates midline crossing and wiring specificity, **Ye-Jin Park**, Baylor College of Medicine

96 6:00 p.m. Fat2 and Sidekick regulate photoreceptor pathway choice during development, **Maria Bustillo**, NYU Grossman School of Medicine

97 6:15 p.m. A novel role of a visual signaling complex in the development of light-sensing compartments, **Heena Khurana**, University of Massachusetts

Friday, March 6, 2026

8:00 p.m.–10:00 p.m.
Michigan, Level 2

Developmental Mechanics

Organizers: Adam Martin, Tara Finegan, and Katheryn Rothenberg

The Developmental Mechanics Workshop will bring together world leaders to explore the physical forces and mechanical principles governing *Drosophila* development and homeostasis. Our proposed program of speakers spans career stages from postdocs to established investigators and is geographically diverse. Speakers will present their latest work implementing cutting-edge imaging techniques, computational modeling approaches, and genetic tools for measuring and manipulating mechanical properties in living tissues. This workshop aims to foster interdisciplinary dialogue in the community, advancing our understanding of how mechanical forces shape tissues and inform broader principles of morphogenesis.

8:06 p.m. Suhrid Ghosh, Shaping Life: how cell deformability drives reproductive evolution

8:25 p.m. Biljana Ermanoska, Inside and out: the role of the cytoskeleton in maintaining the mechanical continuum in neurons

8:44 p.m. Claudia Vásquez, The push and pull of building an organ: contractile and adhesive dynamics in Malpighian tubule elongation

9:03 p.m. Dan Kiehart, New and unexpected insights into the forces that drive dorsal closure

9:22 p.m. Jeremiah Zartman, Reverse engineering organ size and shape: integrating quantitative experiments and multi-scale computational modeling

9:41 p.m. Yu-Chiun Wang, Morphogenetic arms race: how tissue mechanical conflicts are resolved and what that might mean for evolution

Friday, March 6, 2026

8:00 p.m.–10:00 p.m.

Superior, Level 2

Everything You Ever Wanted to Know about Sex

Organizers: Rita Graze, Ben Hopkins, Artyom Kopp, and Michelle Arbeitman

The workshop will cover the molecular genetics, development, neurobiology, physiology, genomics, evolution, and population genetics of sex, with an emphasis on fostering the exchange of knowledge and development of collaborations necessary for building cross-disciplinary interactions and supporting a diverse research community. Presentations by invited speakers whose work has been influential in core subfields will be followed by talks from early career researchers, selected from abstracts. The speakers are encouraged to summarize key ideas behind their research for people working in other fields, outline the main unsolved questions, offer thoughts about future directions, and suggest connections across approaches and research areas.

8:00 p.m. Opening Remarks

8:03 p.m. Amelia R.I. Lindsey, University of Minnesota, Symbiosis and (A)Sex: Microbes as drivers of insect sexual fate.

8:21 p.m. Yen-Shan Chen, Indiana University School of Medicine, Sox21B regulates the development of male genitalia in *Drosophila melanogaster* through cantilever mediated stabilization of sequence-specific DNA bending

8:33 p.m. Alberto Civetta, University of Winnipeg, From Broad Patterns to Specifics: How *Drosophila* Male Reproductive Genes Evolve

8:51 p.m. Victoria H. Meller, Wayne State University, The problem with sex chromosomes

9:09 p.m. Rory T. Coleman, New York University, Decoding the circuit logic of male courtship evolution

9:27 p.m. Kara E. Miller, Villanova University, Multiple circuit elements of *Drosophila* courtship are repurposed from larval life during metamorphosis

9:39 p.m. Michael W. Perry, University of San Diego, Evolution of a novel neural type used in female detection and tracking

9:57 p.m. Closing Remarks

Friday, March 6, 2026

8:00 p.m.–10:00 p.m.

Mayfair, Level 2

From Molecular Biology to Evolution: the Multiple Facets of Transposable Elements in *Drosophila* Research

Organizers: Grace Yuh Chwen Lee and Christopher Ellison

Drosophila has been instrumental in understanding transposable elements, from their evolutionary dynamics to their role in genome regulation. These elements have revealed fundamental insights into gametogenesis, aging, and neurobiology while serving as powerful genetic tools. With recent advances in long-read sequencing renewing interest in transposable element biology, this workshop unites researchers across evolutionary genetics, disease biology, reproduction, genome defense, and neurobiology. Expert talks will provide field overviews, followed by themed discussion tables hosted by established and early-career researchers, which will foster collaboration and knowledge exchange in this rapidly evolving field.

8:00 p.m. Christopher Ellison, Rutgers University, and Grace Yuh Chwen Lee, University of California, Irvine, brief introduction and overview of the annotation of transposable elements in *Drosophila*

8:10 p.m. Katalin Tóth, Cornell University, Genome defense against transposable elements

8:20 p.m. Jonathan Nelson, Stony Brook University, Transposable elements in reproduction

8:30 p.m. Mia Levine, University of Pennsylvania, Genetic conflicts between transposable elements and hosts

8:40 p.m. Nelson Lau, Boston University, Transposable elements in aging

8:50 p.m. Travis Thomson, UMass Medical School, Transposable elements and disease

9:00 p.m. Themed table discussion and networking

9:55 p.m. Re-convene and concluding remarks

Friday, March 6, 2026

8:00 p.m.–10:00 p.m.

Erie, Level 2

Reproducibility for Everyone

Organizer: Nafisa Jadavji

This workshop will introduce reproducible workflows and a range of tools along the themes of organization, documentation, analysis, and dissemination. After a brief introduction to the topic of reproducibility, the workshop will provide specific tips and tools useful in improving daily research workflows. The content will include modules such as data management, electronic lab notebooks, reproducible bioinformatics tools and methods, protocol and reagent sharing, data visualization, statistical analysis, protocol development and version control. All modules include interactive learning, real-time participation, and active knowledge sharing. The methods and tools introduced help researchers share work with their future self, their immediate colleagues, and the wider scientific community.

Saturday, March 7, 2026

8:00 a.m.–10:00 a.m.

Sheraton 2-3, Level 4

Cell Biology: Cytoskeleton, Organelles, and Trafficking II

Session Chairs: Michael Welte, University of Rochester, United States; Vladimir Gelfand, Northwestern University Feinberg School of Medicine, United States; and Marcus Kilwein, Princeton University

98 8:00 a.m. Confinement limits the oscillatory migration of *Drosophila* cardiac progenitors, **Sasha Korolov**, University of Toronto

99 8:15 a.m. Molecular genetic and cell biological analysis of Ccm3-dependent signaling in morphogenesis, **Amin Ghabrial**, Columbia University

100 8:30 a.m. The novel adapter protein Bbo regulates targeting of Hobbit to ER-PM contact sites, **Sarah Neuman**, University of Wisconsin-Madison

101 8:45 a.m. PDZD8 regulates synaptic growth by promoting autophagy at ER-Lysosome contact sites through WNT signaling, **Rajan Thakur**, Brown University

102 9:00 a.m. Mutual dependence of Osbp and PI4KII in secretory granule maturation, **Julie Brill**, The Hospital for Sick Children

103 9:15 a.m. An RNAi-based screen of cadherin proximal proteins reveals candidate regulators of differential cadherin function, **Sarah Clark**, University of North Carolina at Chapel Hill

104 9:30 a.m. Crag couples Calmodulin-mediated polarized cortical targeting and Rab10/Rab8 dual activation to enforce basal deposition of basement membrane in epithelial cells, **Hemin Shah**, Northern Illinois University

105 9:45 a.m. Rcp, a regulator of G-protein-coupled receptor signaling, controls the polarized deposition of basement membrane proteins in epithelial cells, **Lindsey Price**, Northern Illinois University

Saturday, March 7, 2026

8:00 a.m.–10:00 a.m.
Chicago 9-10, Level 4

Chromatin, Epigenetics, and Genomics

Session Chairs: Julia Zeitlinger, Stowers Institute, United States; and Rebecca Stewart, Memorial Sloan Kettering Cancer Center, United States

106 8:00 a.m. The functional organization of chromosome territories in single nuclei during zygotic genome activation, **Akshada Shankar Ganesh**, University of Connecticut

107 8:15 a.m. Inferring Chromatin Architecture at a Single Locus through Probabilistic In Situ DNA Localization, **Minh Tam Le**, California Institute of Technology

108 8:30 a.m. Quantitative analysis of the impact of local chromatin organization on transcriptional dynamics, **Noel Buitrago**, University of Pennsylvania

109 8:45 a.m. Lower-order methylation states preserve parent-of-origin Polycomb modification asymmetries in *Drosophila* embryogenesis, **Eleanor Degen**, Northwestern University

110 9:00 a.m. Scm recognition of H4K20me1 in de novo Polycomb domain formation, **Sean Johnsen**, University of North Carolina at Chapel Hill

111 9:15 a.m. Transposable elements induce trans-allelic epigenetic effects through interaction with pericentromeric heterochromatin, **Yi Gao**, University of California, Irvine

112 9:30 a.m. Sex-specific transposable element and heterochromatin dynamics in the germline of species in the *Drosophila nasuta* group, **Carolus Chan**, University of California, Berkeley

113 9:45 a.m. Suboptimal ribosomal RNA variants are a 'genomic fuse' that triggers germline ribosomal DNA magnification, **Jonathan Nelson**, Stony Brook University

Saturday, March 7, 2026

8:00 a.m.–10:00 a.m.
Sheraton/Chicago 4-7

Neural Circuits and Behaviors

Session Chairs: Anita Devineni, Emory University, United States; Carolyn Elya, Harvard University, United States; and Brandon Fricker, Harvard University

114 8:00 a.m. Neuronal circuitry downregulating aggression across sexes, **Catherine Schretter**, Janelia Research Campus of HHMI

115 8:15 a.m. From perception to valence: a pair of interneurons that assign positive valence to sweet sensation in *Drosophila*, **Lisha Shao**, University of Delaware

116 8:30 a.m. A schizophrenia/autism-associated topoisomerase complex regulates circadian rhythms and circuit development in *Drosophila*, **Charlene Yzobel Guerrero**, NIA, NIH

117 8:45 a.m. Recognition of Distinct Sleep States in *Drosophila* Uncovers Previously Obscured Homeostatic and Circadian Control of Sleep, **Lakshman Abhilash**, Indiana University Bloomington

118 9:00 a.m. Living the sweet life: How neural circuitry drives distinct features of hedonic feeding and its effects on aging, **Rachel Rucker**, University of Michigan

119 9:15 a.m. Cell body adhesion and electrical synapse coupling is required for the *Drosophila* backward walking circuit, **Kristen Lee**, HHMI, University of Oregon

120 9:30 a.m. Investigating Feeding Rhythm Circuit Development in *Drosophila* Larvae, **Amy Poe**, University of Arkansas

121 9:45 a.m. Toll Family Receptors modulate sleep during pathogen infection, **Tim Lebestky**, Williams College

Saturday, March 7, 2026

10:30 a.m.–12:00 p.m.

Chicago 9-10, Level 4

Immunity and the Microbiome

Session Chairs: Nichole Broderick, Johns Hopkins University, United States; Adam Chun-Nin Wong, University of Florida, United States; and Eric Ntiri, United States

122 10:30 a.m. Potential rescue of mitochondrial dysfunction by a *Wolbachia* symbiont of *Drosophila*, **Jessamyn Perlmutter**, University of Virginia

123 10:45 a.m. Juvenile Hormone activity during metamorphosis and post-mating suppress antibacterial immune defenses, **Scott Keith**, Cornell University

124 11:00 a.m. Activation of Toll and IMD pathways in the *Drosophila* brain following local and systemic bacterial infection, **Sameekshya Mainali**, University of Alabama

125 11:15 a.m. Softening the Sting of Infection: Detoxifying and Tolerating Foreign Pathogens, **Carly Lam**, Columbia University

126 11:30 a.m. Crystal cells require a ‘happy medium’ amount of Toll pathway stimulation for normal development, **Michael Allara**, University of Massachusetts at Boston

127 11:45 a.m. A host glycosylation mechanism of symbiotic bacteria recruitment, **Andrea Darby**, Johns Hopkins

Saturday, March 7, 2026

10:30 a.m.–12:00 p.m.

Sheraton 2-3, Level 4

Regulation of Gene Expression II

Session Chairs: Eric Lai, Memorial Sloan Kettering Cancer Center, United States; Laura Buttitta, University of Michigan; and Deena Damschroder, University of Michigan, United States

128 10:30 a.m. Negative regulation by *Drosophila* Mute constrains histone mRNA expression to S phase, **Mark Geisler**, University of North Carolina at Chapel Hill

129 10:45 a.m. Syp reversibly represses translation of specific RNAs in the male germline via binding to their 5'UTRs, **Catherine Baker**, Stanford University School of Medicine

130 11:00 a.m. Translational Regulation of Xrp1 by Upstream ORFs and Coding Sequence Features, **Thao Nguyen**, New York University Grossman School of Medicine

131 11:15 a.m. Comparing mechanisms of histone locus body initiation and maintenance throughout development, **Nicole Roos**, Emory University

132 11:30 a.m. Regulatory Module Dissection by Reporter, EMSA, and Proteomic Analyses Reveals Combinatorial Enhancer–Promoter Interactions Controlling *Drosophila Myc* Transcription, **Jasmine Kharazmi**, University of Zurich

133 11:45 a.m. Topoisomerase 3b promotes stabilization of maternal mRNAs under starvation stress to facilitate neurodevelopment of progeny, **Seung Kyu Lee**, NIH/National Institute on Aging

Saturday, March 7, 2026

10:30 a.m.–12:00 p.m.
Sheraton/Chicago 4-7

Reproduction and Gametogenesis II

Session Chairs: Prashanth Rangan, Icahn School of Medicine at Mount Sinai, United States; Lydia Grmai, Yale University; and Maiko Kitaoka, Whitehead Institute for Biological Research, United States

- 134** 10:30 a.m. Germ granules transform into multiphasic structures by molecular condensation, **Kwan Yin Lee**, Princeton University
- 135** 10:45 a.m. Regulation of spermatogenesis by Comover and the E3 ligase Mindbomb2, **Carihann Dominicci-Cotto**, Albert Einstein College of Medicine
- 136** 11:00 a.m. The gut microbiome impacts both fertility and fecundity on a long-term scale in *D. melanogaster*, **Taylor Mouton**, Johns Hopkins University
- 137** 11:15 a.m. GstS1, a prostaglandin D₂ synthase, promotes eggshell formation in *Drosophila*, **Jie Li**, University of Iowa
- 138** 11:30 a.m. Dopamine production in the central nervous system is important for follicle survival and interacts with genetic background and a high sugar diet during *Drosophila* oogenesis, **Rodrigo Dutra Nunes**, University of Wisconsin-Madison
- 139** 11:45 a.m. Investigating kinetochore – microtubule attachments and chromosome biorientation in *Drosophila* meiosis, **Madeline Terry**, Rutgers University

Saturday, March 7, 2026

4:00 p.m.–6:00 p.m.
Sheraton 1-2, Level 4

Evolution II

Session Chairs: Michael Perry, University of California, San Diego, United States; Julien Ayroles, University of California, Berkeley; and Mark Bitter, Stanford University, United States

- 140** 4:00 p.m. A new principle of thermal adaptation: Intronic RNA thermosensors, **Amanda Linskens**, University of Michigan
- 141** 4:15 p.m. The thermal sensitivity and evolution of parental effects on offspring survival in *Drosophila melanogaster*, **Kristi Montooth**, University of Nebraska-Lincoln
- 142** 4:30 p.m. Molecular basis of pheromone diversification in *Drosophila*, **Rajanikanth Chowdanayaka**, Michigan State University
- 143** 4:45 p.m. On the tempo and mode of transposon mobilization in *Drosophila* male germline, **Peiwei Chen**, Cornell University
- 144** 5:00 p.m. Thrifty Gene Signatures Underlying Diet-Dependent Variation in *Drosophila* Development, **Xuan Zhuang**, University of Arkansas
- 145** 5:15 p.m. Experimental evidence of Fisher's second-site modifiers of dominance in a Mendelian trait, **Yuichi Fukutomi**, University of California, Davis
- 146** 5:30 p.m. Genetic Basis of Sensitivity and Resistance to *Stellate* Meiotic Drive, **Benjamin McCormick**, Cornell University
- 147** 5:45 p.m. Transposable elements shape genome evolution via modulating gene expression level and noise, **Rong Guo**, University of California, Irvine

Saturday, March 7, 2026

4:00 p.m.–6:00 p.m.
Sheraton/Chicago 4-7

Physiology, Metabolism, and Aging II

Session Chairs: Hua Bai, Iowa State University; Swathi Yadlapalli, University of Michigan, United States; and Kerui Huang, Harvard Medical School, United States

148 4:00 p.m. Sleep-dependent clearance of brain lipids by peripheral blood cells, **Bumsik Cho**, UPENN

149 4:15 p.m. Disrupted Mitochondrial Metabolism Links LIPT1 and GLUD2 Variants to Neuronal Dysfunction, **Bhagyashree Kaduskar**, Baylor College of Medicine

150 4:30 p.m. Increased Glycine-*N*-methyltransferase expression disrupts light-dependent rhythms in the *Drosophila* eye, **Seth Lammert**, Purdue University

151 4:45 p.m. Nutrition-sensitive peptide hormone orchestrates lipid-steroid metabolism for sexual maturation, **Jie Sun**, Tulane University

152 5:00 p.m. Glycerol-3-phosphate dehydrogenase regulates Target of rapamycin (Tor) activity to prevent ectopic growth of *Drosophila* larval brain, **Shefali Shefali**, Indiana University Bloomington

153 5:15 p.m. Expected and surprising developmental requirements of juvenile hormone degradation enzymes in *Drosophila melanogaster*, **Rebecca Spokony**, Baruch College

154 5:30 p.m. mTORC1 and the Integrated Stress Response pathway regulate the IGF1 homolog Dilp6 in response to variable protein in a sex-dependent manner in *Drosophila*, **Kelly Dunham**, University of Virginia

155 5:45 p.m. Sexual identity of adipokinetic hormone (Akh)-producing neuroendocrine cells determines nucleobindin 1 (Nucb1)-dependent metabolic and reproductive plasticity, **Narsimha Pujari**, University of Saskatchewan

Saturday, March 7, 2026

4:00 p.m.–6:00 p.m.
Chicago 9-10, Level 4

Stem Cells, Regeneration, and Tissue Injury II

Session Chairs: Robin Harris, Arizona State University; Elizabeth Ables, East Carolina University, United States; and Shyama Nandakumar, University of Pittsburgh, United States

156 4:00 p.m. FGF is attenuated to promote stem cell recovery in the *Drosophila* germline, **Beth Kern**, Drexel University

157 4:15 p.m. Investigating the cell-specific function of *LSD1-interacting non-coding RNA-3 (LINR-3)* in regulating fly oogenesis, **Yang-Hsuan Ou**, National Yang Ming Chiao Tung University

158 4:30 p.m. Transcriptional co-conspirators: Tai and Yki cooperate in intestinal homeostasis, **Victoria Placentra**, Emory University

159 4:45 p.m. Adhesive cell interactions mediated by Rho1 direct assembly of a functional niche, **Rachael Johnson**, East Carolina University

160 5:00 p.m. Lactate dehydrogenase as a metabolic regulator and potential anti-aging target in the *Drosophila* intestinal stem cell niche, **Kyle Hart**, University of Louisville

161 5:15 p.m. 4D imaging of the germarium suggests that Follicle Stem Cells and Follicle Cells self-organize around germline cysts, **Amy Reilein**, Columbia University

162 5:30 p.m. mTORC2-Chinmo Axis Regulates Germline Stem Cell Aging via Niche Remodeling in *Drosophila*, **Pin Kuan Chiang**, National Chung Hsing University

163 5:45 p.m. Function of the PinX1 homolog, Chigno, in the *Drosophila* testis stem cell niche, **Claire Aminuddin**, William & Mary

Saturday, March 7, 2026

7:30 p.m.–9:30 p.m.
Sheraton/Chicago 4-7

Techniques and Technology

Session Chairs: Justin Bosch, University of Utah, United States; Bernard Kim Princeton, United States; and Dawn Chen, University of Pennsylvania, United States

7:30 p.m. FlyBase: Past, Present, and Future, **Brian Calvi**

164 7:45 p.m. A High-Throughput, Artificial Intelligence-Powered Pipeline for *Drosophila* Behavioral Phenotyping, **Ryan O’Neill**, National Heart, Lung, and Blood Institute

165 8:00 p.m. An Interactive, 3-D Developmental Atlas for *Drosophila melanogaster*, **Jacob McDaniel**, University of Wyoming

166 8:15 p.m. FlyPredictome: A Structurally Resolved Atlas of the *Drosophila* Protein Interactome, **Ah-Ram Kim**, Harvard Medical School

167 8:30 p.m. Endocytome profiling uncovers cell-surface protein dynamics underlying neuronal connectivity, **Colleen McLaughlin**, Stanford University

168 8:45 p.m. Development of a novel high-throughput system to study *Drosophila melanogaster* metabolism, **Sophie Fleck**, Indiana University Bloomington

169 9:00 p.m. ChIP-SMF: Scalable single-molecule profiling to reveal protein co-binding dynamics on DNA, **Simon Bourdareau**, Stowers Institute for Medical Research

170 9:15 p.m. Nanopore Sequencing in *Drosophila*: Length and Bias Limits Progress in Completing the Genome, **Jen-Yu Wang**, University of California, Irvine

Sunday, March 8, 2026

8:30 a.m.–10:30 a.m.
Sheraton/Chicago 4-7

Closing Plenary and The Hugo Bellen and Catherine Tasnier *Drosophila* Neurogenetics Lecture

Session Chairs: Daria Siekhaus, University of California, Los Angeles, United States; and Pelin Volkan, Duke University

8:30 a.m. Poster Awards

171 8:40 a.m. ‘Flying’ through the local and long-range functions of the intestine in health and disease, **Julia Cordero**, School of Cancer Sciences, University of Glasgow, CRUK Scotland Institute

172 9:05 a.m. Ageing and metabolic dysfunction - insights from *Drosophila*, **Helena Cocheme**, MRC Laboratory of Medical Sciences (LMS)

173 9:30 a.m. Themes and variations in *Drosophila* social circuits, **Vanessa Ruta**, Rockefeller University/HHMI

9:55 a.m. Hugo Bellen and Catherine Tasnier *Drosophila* Neurogenetics Lecture Award Presentation

174 10:00 a.m. Regulatory logic of neuronal identity specification in *Drosophila*, **M. Neset Özel**, Stowers Institute

10:25 a.m. Closing Remarks

Poster Session Listings



Cell Biology: Cytoskeleton, Organelles, and Trafficking 175T – 226S
 Cell Division and Cell Growth 227T – 263S
 Cell Stress and Cell Death 264T – 278S
 Chromatin, Epigenetics, and Genomics 279T – 322S
 Evolution 323T – 363S
 Immunity and the Microbiome 384T – 389S
 Initiatives in Education, Pedagogy, Engagement, and Outreach 390T – 394F
 Models of Human Disease 395T – 481S
 Neural Circuits and Behavior 482T – 543S
 Neural Development and Physiology 544T – 585S
 Patterning, Morphogenesis, and Organogenesis 586T – 645S
 Physiology, Metabolism, and Aging 646T – 704S
 Regulation of Gene Expression 705T – 747S
 Reproduction and Gametogenesis 748T – 808S
 Stem Cells, Regeneration, and Tissue Injury 809T – 845S
 Techniques and Technology 846T – 864S

Cell Biology: Cytoskeleton, Organelles, and Trafficking

175T Exploring the role of PDZ-GEF in embryonic wound healing
Katheryn Rothenberg University of Iowa

176T Examining the in vivo dynamics of Ds-Ft signaling
Hitoshi Matakatsu The University of Chicago

177T Searching for Binding Partners of the ck/Myosin VIIA Tail Domains
Jennifer Sallee North Central College

178T A secreted bacterial effector drives cell death by interfering with Rab35 activity
George Aranjuez University of Central Florida

179T Functional interactions between Kibra, a Hippo pathway component, and the apical polarity kinase aPKC
KathyAnn Lee University of Chicago

180T Building Epithelial Barriers with Synaptic Tools
Tara Finegan University of Missouri

181T Defining the functions of p53 nuclear bodies
Padma Rangarajan Indiana University

182T Endosomal protein CG14767 limits tissue growth by inhibiting the Hippo pathway regulator Yorkie
Swastik Mukherjee University of Massachusetts at Boston

183T The Rho GTPases play an essential role in proper caudal visceral mesoderm (CVM) migration during embryogenesis
Shiva Ahmadi University of St. Thomas

184T A single amino acid substitution in a novel secreted protein specifies variation in a rapidly evolving male reproductive structure
Md Golam Azom University of Oklahoma

185T Investigating mechanisms of v-ATPase-mediated autolysosomal acidification
Amanda Scharenbrock University of Minnesota - Twin Cities

186T Dominant-Negative DRP1 variants reduce Tau Toxicity through rebalanced organelle dynamics and redox function
Saurabh Srivastav Baylor College of Medicine

187T Apocrine secretion in the prepupal salivary glands of *Drosophila* utilizes a novel non-canonical and non-vesicular transport and secretory machinery
Robert Farkas Slovak Academy Sciences, Institute of Experimental Endocrinology, Biomedical Research Center

188T Phenotypic severity and subcellular localization depend on Bruno1 isoform expression levels in indirect flight muscle
Sienna Ficken University of Missouri Kansas City

189T Generation and maintenance of apical rib-like actin fibers in epithelial cells of the *Drosophila* eye
Ruth Johnson Wesleyan University

- 190T** Genetic dissection of motor proteins mediating dense core vesicle axonal trafficking **Aidan Dermady** NINDS
- 191T** Age-dependent requirement of EMC4 function in the fat body for female fertility and fecundity in *Drosophila melanogaster* **Salma Abdelkhalek** Lake Forest College
- 192F** Characterizing the Role of Perlecan on *Drosophila* Border Cell Migration **Christopher Welsh** University of Maryland, Baltimore County
- 193F** Rapgap1 negatively regulates *Drosophila* embryonic epithelial wound healing **Jiarui Jiang** University of Iowa
- 194F** Generalizable non-canonical secretion of a novel amphipathic α -helical peptide **Cooper Stringer** Northwestern University
- 195F** Optogenetic Control and Characterization of Rab11 Trafficking during Tissue Morphogenesis **Yi Hong Liu** Dartmouth College
- 196F** Nuclear pore complex abundance regulates the specificity and kinetics of nuclear-cytoplasmic transport in early *Drosophila* embryos **Hibah Amin** The University of Texas at Dallas
- 197F** The LINC complex and microtubule network are altered in larval muscles prior to tumor induced wasting **Chrislynn Harris** Sam Houston State University
- 198F** Signaling and mechanics influence cell identities during *Drosophila* pupal wing vein patterning **Carol Dilts** University of Chicago
- 199F** Border cell secreted basement membrane is required for on-time migration **Emma Lowden** University of Iowa
- 200F** Relating gene expression dynamics to actin remodeling during *Drosophila* cellularization **Afifa Iqbal** University of Illinois, Urbana Champaign
- 201F** Assessing changes in non-centrosomal MTOC number and position as a mechanism for microtubule alterations in cachexic muscle **Cody Griffin** Sam Houston State University
- 202F** Investigating light-dependent redox regulation of protein kinase C as a phototransduction tuning dial in insects **Leah Pierce** Purdue University
- 203F** Exploration of lipid profiles in mitochondria of *Drosophila melanogaster* spermatogenesis **Margaret Woodward** Davidson College
- 204F** Uncovering functional divergence of human co-chaperone UNC45 paralogues by expression in *Drosophila* muscle **Morgan Mullens** San Diego State University
- 205F** Investigating the role of collagen IV in collective cell migration during embryonic epidermal wound healing **Aiza Khan** University of Iowa
- 206F** Characterizing the roles of Cdk8 in epithelial tissue closure **Chris Tam** Simon Fraser University
- 207F** Lysine acetylation regulates non-muscle myosin II filament assembly **Aleksandra Karpeyev** Reed College
- 208F** A DNA quality control program eliminates defective haploid sperm nuclei **Maiko Kitaoka** Whitehead Institute for Biological Research
- 209F** From Surface to Signal: Substrate-Dependent Formation of the Axon Initial Segment in *Drosophila* Neurons **Nanati Safawo** Reed College
- 210S** Dual wing and follicle cell screen for bioactive protein traps **Kevin Edwards** Illinois State University
- 211S** Decoding Organogenesis: Unraveling the Role of E-Cadherin in Malpighian Tubule Elongation **Megan Yi** University of Washington
- 212S** Molecular remodeling of the oosome during pole cell formation in *Nasonia vitripennis* **Md Eleus Hussain Bhuiya** University of Illinois Chicago
- 213S** Elucidating the Role of Different Integrin Heterodimers in Epidermal Homeostasis and Repair **Brianna O'Donnell** University of Iowa
- 214S** Role of α -Catenin actin binding domain (ABD)-based mechanosensing in tissue morphogenesis **Samantha Delios** University of Toronto
- 215S** Testing the Cell-Penetrating Potential of a Novel *Drosophila* Peptide in Mammalian Cells **Will Montgomery** Northwestern University
- 216S** The functions of the FERM protein Yurt in epithelial morphogenesis **Fadi Zidan** University of Toronto
- 217S** Uncovering Genetic Drivers of Midgut Lipid Droplet Accumulation in the Mex II *Drosophila* Model **Folashade Olorunfemi** University of Illinois at Chicago
- 218S** Structure-function analysis of a phosphate transporter using Hostile Takeover protein trapping **Bailey Center** Illinois State University
- 219S** Regulation and Function of the Basolateral Polarity Determinant Discs Large 1 in *Drosophila* Germband Extension **Laetitia Reduron** Dartmouth College
- 220S** Investigating the Molecular Interconnectivity of Z-Disc Protein Accumulation in *Drosophila* Indirect Flight Muscles **Shayla Tran** San Diego State University
- 221S** Systemic propagation of STING signaling via generation of large extracellular vesicles **Annabel Vernon** University of Washington

222S How Does Membrane Tension Alter Epithelial Cell Division and Macrophage Infiltration Dynamics? **Emily Broutian** Memorial Sloan Kettering Cancer Center

223S Mitochondrial inner membrane protein MITOP functions as mitochondrial proton-calcium exchanger **Jundan Peng** National Institute of Biological Sciences

224S *Drosophila* e and g subunits of the ATP synthase contribute to fly development and Ca²⁺ homeostasis **Elena Frigo** University of Padova

225S Preventing cracks in the foundation: Investigating how basement membranes control Collagen IV levels **Katherine Peebles** Vanderbilt University

226S Investigating ER stress caused by glial-specific knockdown of the ER membrane complex, subunit four (EMC4) **Monique Dirzo** Lake Forest College

Cell Division and Cell Growth

227T A conditional Flp/FRT screen on chromosome 2R identifies growth and developmental mutants as part of the Fly-CURE **Jacob Kagey** University of Detroit Mercy

228T Live imaging and bioinformatic analysis reveal the molecular mechanism of direct nuclear-to-cytoplasmic ratio sensing in early *Drosophila* development **Shufan Lin** University of Pennsylvania

229T Coordinating New DNA Synthesis during Double-Strand Break Repair in *Drosophila* **Daniel Kane** Le Moyne College

230T Wingless and Yorkie Drive Tumor Growth Through JNK: Insights from *Drosophila* and Human Cancers **Arushi Rai** University of Dayton

231T Genetic Mapping of 6e.29, 6d.44, and a.21 Cell Growth Mutations in the Fly-CURE **Ethan Giannotta** Ohio Northern University

232T Increasing mitotic retention of GAGA Factor in early embryo has limited impact on transcriptional identity **Annemarie Branks** University of Wisconsin-Madison

233T Investigating the Roles of Specific Cyclins in the Dissemination of Ras^{v12}-Driven Tumor Cells in *Drosophila melanogaster* **Ginger Chiu** CSU Long Beach

234T Mechanisms of Mitotic DNA repair by DNA Polymerase Theta **Erin Dickert** Duke University

235T Metazoan Nup98 and Nup96 control entry into S phase **Evi Malagise** Vanderbilt University

236T *Drosophila* *Blm* Mutant Males Show Increased Meiotic Nondisjunction **Abigail Brown** Lewis-Clark State College

237T Examining Regulation of Bloom Syndrome Helicase Regions Conserved Among Closely Related *Drosophila* Species Provides New Insights on Function **Evan Dewey** Winthrop University

238T Condensin I function requires a putative interaction domain of the E3 ligase CRL4^{Cdt2} **Satya Yalamanchi** Duke University

239F Investigating the molecular mechanisms of wound-induced mitotic inhibition **Chloe Hecht** Vanderbilt University

240F Creating a CRISPR-engineered Polo-like kinase 4 mutant sensitized to small molecule inhibitors in *Drosophila* **Lily Fryer** University of Vermont

241F Investigating the protein-protein binding domains of Mute: a novel negative regulator of replication-dependent histone gene expression in *D. melanogaster* **Alacia McClary** University of North Carolina at Chapel Hill

242F Understanding the mechanisms of disrupted cell signaling using a fruit fly epithelial tumor model **Nooreen Fatima Syeda** University of Massachusetts, Lowell

243F Examination of *fancm* mutants in repair of CRISPR/Cas9 double strand breaks reveals increased usage of theta-mediated end joining **Hannah Duncan** Winthrop University

244F Studying Non-Crossovers in *fancm* mutants using CRISPR/Cas9 **Aiyana Williams** Winthrop University

245F Testing the capacity of the *Chlamydia* effector Tarp to inhibit cell death by targeting the host Hippo pathway **Kasey Jordan** University of Central Florida

246F Endocrine ERK dynamics control adult size and metamorphosis independently **HoHin Chan** The University of Hong Kong

247F Investigating the relationship between active Polo kinase localization and B chromosome drive during female meiosis **Abigail Goldhamer** University of Connecticut

248F Mutant *C.3.3* identified from a conditional Flp/FRT EMS screen harbors lethal mutations in *Rpe* and *Nup75* **Mariana Gonzalez** University of Detroit Mercy

249F Differential meiotic regulation of the X-Chromosome in the Synaptonemal Complex mutants **Sarai Rivera** University of Georgia

250F A progeroid mutation exposes a regulatory role for BAF during mitotic broken chromosome rescue **Brandt Warecki** University of California, Santa Cruz

251F How do RING proteins affect double strand break formation/resolution throughout synaptonemal complex progression in *Drosophila melanogaster*? **Brittany Chopra** University of Georgia

252S Investigating the spatial regulation of Hippo pathway activator Kibra in asymmetrically dividing neuroblasts **Victoria Sullivan** The University of Chicago

253S Impact of Sex on Germline DSB Repair in *Drosophila melanogaster* **Clara Turck** Georgetown University

254S Elucidating the Relationship Between CtIP and Blm Helicase in Single-Stranded Annealing **Isha Bahadur** Georgetown University

255S Investigating the effect of mild cold temperature on *Drosophila* female germline stem cells **Ambarisha Samantaray** University of Wisconsin - Madison

256S Modeling the impact of unscheduled endocycling on tissues and tumors **Cameron Hughes** Indiana University

257S Investigating the role of aPKC-dependent phosphorylation on Kibra's subcellular localization and function **Aimee Smith** University of Chicago

258S Neural stem cells regulate intracellular calcium to control cell identity and function **Alessandra Jester** University of Montana

259S Metabolic reprogramming and signaling imbalance drive collective invasion and heterogeneity in a *Drosophila* epithelial tumor model **Josna Mary Pious** University of Louisiana at Lafayette

260S Cloning and Characterizing a negative regulator of larval tissue-specific growth **Taylor Bruno** Case Western Reserve University

261S Impact of Caloric Density on Meiotic Recombination Rate **Connor Haynes** Auburn University

262S Employing single-cell genomics to dissect the role of E2F/Rbf during early development of the *Drosophila* flight muscles **Oliver Carty** University of Illinois Chicago

263S From Phosphorylation to Activation: A *Drosophila* Perspective on APC/C activation in female meiosis **Rajni Rai** University of Windsor

Cell Stress and Cell Death

264T *Drosophila* GCN1 is essential for general neuronal activity independent of the canonical GCN1–GCN2 pathway **Hidetaka Katow** NYU Grossman School of Medicine

265T Stress Responsive ATF4 Directs Leader-Follower Organization in Collective Cell Migration **Rehan Khan** Kansas State University

266T Molecular Mechanisms Governing Nurse Cell Death During *Drosophila* Oogenesis **Georgette-Vanelle Wandji** Boston University

267T The *Drosophila* CEBPG homolog Irbp18 is essential for crc (ATF4)-induced Integrated Stress Response (ISR) in degenerative disease models **Hyung Don Ryoo** New York University School of Medicine

268T EMS mutagenesis-based forward genetic screen to explore mechanisms of the newly identified cell death erobosis in the *Drosophila* midgut **Rahul Parit** RIKEN Center for Biosystems Dynamics Research (BDR)

269T A molecular mechanism that promotes the survival of severely Rhodopsin-deficient photoreceptors **Elnor Bashir** University of Massachusetts Boston

270F The Hippo signalling pathway regulates the timing of epithelial cell replacement during *Drosophila* abdominal morphogenesis **Kyle Lyon** Monash University

271F The Effect of the Western Diet on Ferroptosis of Kidney Like Tissue **Kyler Hegarty** Iowa State University

272F Investigating the Role of Caspases in Tumor Growth **Sabari Krishnan Baijumon Bindhu** University of Dayton

273F Polyploid cells exhibit enhanced resistance to heat stress in *Drosophila* larval tissues **Jannatul Mawah** University of Louisiana at Lafayette

274F Evaluating cell competition genes in *Drosophila* wing discs **Olivia Gramza** University of California, Irvine

275S Stress in Ribosomal Protein Mutants **Jonathan Hakimian** University of California, Irvine

276S Using *Drosophila* to investigate interactions between mammalian regulators of apoptosis Bax and Bcl-xL, and the mitochondrial porin VDAC **Bradley Jones** University of Mississippi

277S scRNA-Seq Reveals Tumor- and Stress-Induced Changes in *Drosophila* Follicle Cells **Cristian Santiago** Tulane University School of Medicine

278S Fundamental role of iPLA2 in mitochondrial quality control **Jieyu Yang** National Institute of Biological Sciences, Beijing

Chromatin, Epigenetics and Genomics

279T Using deep learning sequence models to understand nucleosome and 3D genome organization in the early *Drosophila* embryo **Samuel Campbell** Stowers Institute for Medical Research

280T Phosphorylation as a modulator of HP1a function **Nicole Riddle** University of Alabama at Birmingham

281T Auxin-mediated knockdown of cohesin subunits in *Drosophila* embryos **Cale Severude** Northwestern University

- 282T** Leveraging genetic divergence to uncover mechanisms of genomic organization **Haley Brown** University of Wisconsin Madison
- 283T** Histone Writer and Residue Mutations Reveal an H3K36me2/me3 Transcriptional Switch **Harmony Salzler** UNC Chapel Hill
- 284T** Identification of RNA modifications and their implications in alternative splicing and polyadenylation **George Boateng-Sarfo** North Dakota State University
- 285T** The genetic basis of mitotic lethality of the 359-bp satellite in *Drosophila* hybrids **Tianzhu Xiong** Cornell University
- 286T** Establishing the functional landscape of the *D. melanogaster* B chromosome centromere **Shania Kalladanthiyil** University of Connecticut
- 287T** Family Matters: Understanding expression of histone sibling genes **Sisi Falcone** Emory University
- 288T** SET8 Contributes to DNA Replication During Early *Drosophila* Development Independently of H4K20me1 **Karla Troncoso** University of North Carolina at Chapel Hill
- 289T** Y-linked variation in *D. melanogaster* acts as a regulator of the epigenome **Shane Warland** Cornell University
- 290T** dAnp32 functions with Jabba to promote embryonic development **Noah Reger** University of Rochester
- 291T** Understanding the Role of Nuclear Envelope Transmembrane (NET) Proteins in Chromatin Organization **Alexis Guzman** San Diego State University
- 292T** Interrogating the role of histone acetylation in zygotic genome activation **Oscar Arroyo** University of North Carolina at Chapel Hill
- 293T** Rethinking the basis of dosage compensation of the *Drosophila* X chromosome **James Birchler** University of Missouri
- 294F** H3K27me3 resolves unique, spatially distributed patterning states in *Drosophila* embryogenesis **Corinne Croslyn** Northwestern University
- 295F** Sex-dependent Dietary Impacts on the Epigenetic Silencing of Transposable Elements **Hannah Lee** University of California, Irvine
- 296F** Mechanisms of Rif1-mediated regulation of DNA replication in *Drosophila melanogaster* **Anneliese Schroer** Vanderbilt University
- 297F** Investigating the Megator-dependent dosage compensation repressive pathway **Kavana Gonur** San Diego State University
- 298F** Chromosomes in conflict: Uncovering how the B chromosome disrupts chromosome 4 segregation during female meiosis **Suparna Dutta** University of Connecticut
- 299F** Transgenerational inheritance of odor experience alters gene expression and behavior in offspring **Yuqi Ma** University of California, Riverside
- 300F** NASP functions in the cytoplasm to prevent histone H3 aggregation during early embryogenesis **Mohit Das** Vanderbilt University
- 301F** Characterizing PR-DUB Function in Stochastic Cell Fate Decisions during *Drosophila* Eye Development **Marina Curchitser** Johns Hopkins University
- 302F** *Drosophila* Tet deregulation in Glia Disrupts ECM Integrity and Drives VNC Elongation in Larval Brains **Malak Kleit** American University of Beirut (AUB)
- 303F** Transcriptional state of the sex chromosome territory in spermatocytes of *Drosophila pseudoobscura* **Henry Bonilla** University of Sao Paulo
- 304F** Investigating The Role of Histone Lysine Demethylase Proteins in *Drosophila* Dosage Compensation **Julia Sallean** University of North Carolina at Chapel Hill
- 305F** Using genetic complementation analysis within and between multigene families to crack the histone code **Gregory Matera** University of North Carolina
- 306F** Home is where the histones are: mechanisms of nuclear body localization **Tod Butenschon** Emory University
- 307F** Characterizing the Formation of R-loops at the Centromeres of *Drosophila Melanogaster* **Daniel DSouza** University of Connecticut
- 308S** Ulp1: A Clock for Heterochromatin Repair **Nadejda Butova** University of Southern California
- 309S** Identification of Novel Genes Involved in Transposable Element-Mediated Spreading of Repressive Marks in *Drosophila melanogaster* **Abby Owen** University of California, Irvine
- 310S** Extensive pairing of homologs in single nuclei during zygotic genome activation **Peter Fatzinger** University of Connecticut
- 311S** Diet-mediated alternation of the epigenetic regulation of transposable elements in *Drosophila melanogaster* **Min-Chi Yang** University of California, Irvine
- 312S** JIL-1-mediated phosphorylation of the Su(var)3-9 methyltransferase impacts H3S10ph and H3K9me2 chromosomal distribution patterns **Bhavi Kudu** Iowa State University
- 313S** Investigating the role of H3.3S31 in the *Drosophila melanogaster* chromatin landscape **Claire Sykes** University of North Carolina at Chapel Hill
- 314S** Interplay Between Nuclear Organization and Dosage Compensation in *Drosophila melanogaster* **Hassan Mujtaba** Wayne State University

315S Cohesin and condensin contribute to MSL-mediated dosage compensation in *Drosophila melanogaster* **Ithmam Hami** Wayne State University

316S Breaking the repeats: Targeted disruption of satellite DNA **Jabale Rahmat** University of Rochester

317S Distinct DNA-binding specificity of the N-terminal zinc fingers of Zelda revealed by DAP-seq **Rudolf Gilmutdinov** New York University

318S Distinguishing Functional Roles of Nup93 Paralogs in Tissue Identity and Growth **Julia Hartmann** San Diego State University

319S Determining The Roles of Nuclear Pore Proteins In Polycomb Mediated Gene Silencing and Chromatin Modification **Mary McLellan** San Diego State University

320S Determining the Relationship between Kismet and Polycomb and Trithorax Group Proteins in *Drosophila* Larval Motor Behavior **Paula Boser** Southern Illinois University Edwardsville

321S The Chromatin Remodeler Kismet and the Histone Acetyltransferase CBP Cooperatively Promote Synaptic Functions Without Altering Global H3K27ac or H3K27me3 Levels **Nadine Assi** Southern Illinois University Edwardsville

322S Gene annotation of *tango* and *Elongator complex protein 6* in *Drosophila* species **Aaliyah Bartholomew** Medgar Evers College

Evolution

323T Population genomics of *Drosophila subpulchrella* and adaptive evolution of *suzukii* species complex **Airi Sato** Rockefeller University

324T A predicted structural interactome in *Drosophila*: the roles of intrinsically disordered regions and functional associations **Junhui Peng** Rockefeller University

325T Centromeric targeting enables a retroelement to propagate and shape centromere evolution **Tyler McDermott** University of Connecticut

326T Convergent Evolution of Neo-Sex Chromosomes in *Zaprionus* Species **Ching-Ho Chang** Academia Sinica

327T Parallel Out-Of-Ancestral range expression differentiation in the male reproductive tract of two *Drosophila* species **Tiezheng Fan** University of California, Davis

328T Modeling the conditions for the maintenance of parthenogenesis **Tzu-Yen Hsu** National Taiwan University

329T Adaptation vs sexual selection: Exploring the genes and selective pressures underlying a pheromone difference between natural *Drosophila* populations **Myron Child** University of Wisconsin-Madison

330T Annotation of Glycogen Phosphorylase (GlyP) in *Drosophila rhopaloa* and Multiple Inositol Polyphosphate Phosphatase 2 (Mipp2) in *Drosophila miranda* in collaboration with the Genomics Education Partnership **Anna Myers** Ohio Northern University

331T Exploring transposable element invasions using historical samples **Prakash Narayanan** North Dakota State University

332T Recent horizontal transfer of transposable elements in *Drosophila* **Shashank Pritam** North Dakota State University

333T Population genomics of *Drosophila pseudoobscura* **Yesbol Manat** University of Houston

334T Single-cell transcriptomes reveal largely sex-coupled evolutionary changes of sexual circuits in *Drosophila* **Dawn Chen** University of Pennsylvania

335T Disruption of Small RNAs and Mechanistic Polymorphism in the Sperm Killing Meiotic Drive System *Segregation Distorter* **Logan Edvalson** University of Rochester

336F Correlated gene copy number changes of members of the Sex Peptide Network across *Drosophila* species **Jolie Carlisle** Cornell University

337F Orthologs of a rapidly evolving spermatogenesis transition protein vary in their capacity to condense spermatid nuclei in *D. melanogaster* **Sarah Obrycki** College of the Holy Cross

338F Newly evolved genes required for *D. melanogaster* spermatogenesis are post-transcriptionally regulated through their 3' UTRs **Junyi Wu** College of the Holy Cross

339F Teaching a Centromere to Drive **Nicolas Lee** Fred Hutch Cancer Center

340F Investigating the spatiotemporal regulation of Dumpy in novelty development **Catarina Bromatti** University of Pittsburgh

341F X chromosome meiotic drive and polymorphic Y chromosome-linked resistance in *Drosophila affinis* **Anjali Gupta** University of Kansas

342F Adaptation of a DNA virus to *Drosophila* Species **Taiye Adewumi** University of Kansas

343F Contribution of locally adapted variation to adaptive potential in experimental cages of *Drosophila melanogaster* **Jamie Freeman** University of Wisconsin-Madison

344F Recombinant drive as a mechanism for recombination rate control **Ankita Chauhan** University of British Columbia

345F Recombinant mapping of an essential locus for male fertility on the early stage neo-Y chromosome of *Drosophila albomicans* **May Wang** University of British Columbia

346F Adaptive evolution of a maternally deposited nuclear lamina protein preserves early embryonic genome integrity **Amber Ridgway** University of Pennsylvania

347F Genetic mechanisms underlying repeated evolution of intraspecific cuticular hydrocarbon variation across distantly related species **Yibo Gu** Department of Entomology, Michigan State University

348F Mapping a strong X-linked suppressor of selfish *Segregation Distorter* in *D. melanogaster* **Tyler Handler** University of Rochester

349F The Evolution of Functional Divergence: Quantifying Expression and Sequence Dynamics Across Tissues, Sex, and Species of *Drosophila* **Anthony Jacob Joson** Temple University

350S Evolutionary analyses of newly discovered domestications of *PIF* transposable element proteins in *Drosophila* **Chathuri Devmika Wickramasinghe** University of Texas at Arlington

351S Investigating the co-evolutionary dynamics of *Drosophila recens* and *Wolbachia* **Cameron Seitz** University of Georgia

352S The Hawaiian *Drosophila* Genomes Project: Uncovering the Genomic Basis of an Extraordinary Adaptive Radiation **Augusto Santos Rampasso** Princeton University

353S The Interaction of Cyclin G in the Insulin/TOR Pathway **Anna Czernik** Saint Xavier University

354S Effects of developmental and adult temperature on lifespan in temperate and tropical *Drosophila* **Emanuel Makwisa** Institute of Zoology, Slovak Academy of Sciences

355S A cytoplasmic factor underlies hybrid female sterility in *Drosophila yakuba* and *D. santomea* **Ana Llopart** University of Iowa

356S Dietary stress reveals genotype by environment interactions in recombination rate plasticity **Melika Ghasemi Shiran** Auburn University

357S Large-scale screening for meiotic drive in *D. melanogaster* populations **Daniel Barbash** Cornell University

358S Leveraging Deep Learning to Study *Drosophila* Enhancer Evolution **Amruthamshu Koundinya** Stowers Institute for Medical Research

359S Natural Variation in Meiotic Drive and Susceptibility in *Drosophila melanogaster* **Aditi Kishore** Basic Sciences Division, Fred Hutchinson Cancer Research Center

360S Spiralling Invasions: Invasive species control through genetic Allee effect **Soumitra Bhide** University of Melbourne

361S Violation of Mendelian segregation: Identifying selfish genes causal for sex chromosome drive in *Drosophila albomicans* **Joel Osegueda Delgado** University of Texas at San Antonio

362S Genetic variation modulates body weight and metabolic responses to high-fat and high-sugar diets in *Drosophila melanogaster* **Sumaira Shabbir** University of Arkansas, Fayetteville

363S Genetic analyses and functional validation reveal diet-dependent GxE effects on *Drosophila* development time **Yulin Bai** University of Arkansas

Immunity and the Microbiome

364T Selective adhesion facilitates gut symbiont-host specificity through a conserved molecular mechanism **Kevin Aumiller** Johns Hopkins University

365T *Drosophila* complement-like Mcr acts as a wound-induced inflammatory chemoattractant **Alessandro Scopelliti** University of Edinburgh

366T From protein to pathogen: Toxin-receptor co-evolution across biological scales **Rebecca Tarnopol** University of California, Berkeley

367T Time of Day Variation in the Gut Microbiome and Feeding Behaviors of *Drosophila melanogaster* **Alder Yu** University of Wisconsin - La Crosse

368T Genetic Dissection Reveals Region of 2R as Basis of Broad Immune Susceptibility Previously Attributed to Thor2 Flies **Kate Browning** Cornell University

369T 4E-BP is Required for Translation of Bomanins in Early Infection with *E. faecalis* **Kate Browning** Cornell University

370T Number not programmed

371T Genetic variation in larval sessile crystal cell number **Amanda Pan** Baruch College, CUNY

372F Fly viral atlas: Cellular tropism of *Drosophila* RNA viruses and their impact on the host **Nilanjan Roy** University of Kansas

373F Tumor induced *Acetobacter* expansion leading to kidney stone and ascites development **Anindita Barua** Tulane University

374F The *drop-dead* mutant fly as a model for gut-brain-immune interactions in neurodegeneration **Margaret Crespo Cruz** Marquette University

375F Comparison of axenic and conventional bacterial supplementation in *w¹¹¹⁸* flies **Habin Jung** Midwestern University

376F Host Genotype Impacts Metabolic Response to Chronic Bacterial Infection **Ananda Kalukin** Cornell University

377F In-host evolution of gut bacteria significantly reduces fly lifespan **Angela Xu** Johns Hopkins University

378F Genetic and evolutionary basis of *Drosophila* resistance to parasitoid wasp infection **Amina Irfan** University of Cambridge

379F Microscopic Mercenaries: How Teratocytes manipulate Host Immune Defenses **Gabriel Duenas** University of California, Berkeley

380F Conserved Functions of JNK Signaling in blood cell Differentiation and Inflammatory Responses **Bayan Kharrat** Stanford University School of Medicine

381S Characterization of the Lipid Composition of the Lamellocyte Membrane **Kristen Latour** California State University Fullerton

382S *Interactions Between Host Genetics, Diet, and Pathogen Infection in Drosophila* **Anish Kusumanchi** Colby College

383S Roles of CaM-dependent kinase kinase 2 in enteroendocrine cells in the axis of the gut-immune response **Abigail Agyenda** University of Minnesota Duluth

384S The Role of Prophenoloxidase Pathway in *Drosophila* Defense Against a DNA Virus **Abigail Lewis** University of Kansas

385S Single-cell transcriptomics reveals early *Wolbachia* infection dynamics in *Drosophila melanogaster* **Jodie Jacobs** University of California, Santa Cruz

386S Dietary phytochemicals modulate the physiology and host-microbiome interaction in *Drosophila* **Preeti Kayastha** West Virginia State University

387S The Role of the Toll Inflammatory Signaling Pathway on Crystal Cell Differentiation in *Drosophila* **Mathangi Selliah** University of Massachusetts Boston

388S The immune signaling pathways Toll and Imd play a role in *Drosophila* hematopoiesis **Carolina Ferrer** University of Massachusetts Boston

389S Linking Host Control of the Microbiota and Host Adaptive Evolution in Experimentally Evolved Populations of *Drosophila melanogaster* **Valeria Chavarin** California State University, Fullerton

Initiatives in Education, Pedagogy, Engagement, and Outreach

390T Building Bridges in Genomics Education: Regional Nodes as Catalysts for Distributed Faculty Collaboration **Jennifer Mierisch** Loyola University Chicago

391T Building scientific identity through a CURE modeling diabetes and nutrition in an introductory biology course **Elyse Bolterstein** Northeastern Illinois University

392F From genotype to phenotype: generating novel mutations in *doublesex* using CRISPR/Cas9 in an undergraduate laboratory course **Jennifer Kennell** Vassar College

393F Expanding undergraduate research experiences through the Fly-CURE: A collaborative *Drosophila* genetics network **Jamie Siders** Ohio Northern University

394F Fly-CURE Behavioral Genetics: Challenges and Successes in Implementation Across Institutions **Mariano Loza-Coll** California State University, Northridge

Models of Human Disease

395T Muscle Hnf4 rewires methionine transsulfuration to fuel intestinal tumor growth **Kerui Huang** Harvard Medical School

396T A drug repurposing screen in *Drosophila* finds antibiotics and antihypertensive drugs as potential therapeutics for the rare disease WARS2 deficiency **Hans Dalton** University of Kansas

397T GABAergic neurons are a key cell type in a *Drosophila melanogaster* model of PARK14/PLA2G6-Associated Neurodegeneration **Moshe Horowitz** Yeshiva University

398T Monitoring age-dependent locomotor decline of *PARK14/iPLA2-VIA* mutant *Drosophila melanogaster* using a Mathematica-based video-tracking protocol **Adin Blumofe** Yeshiva University

399T Use of large-scale *Drosophila* genetic reagents to facilitate human disease research **Oguz Kanca** Baylor College of Medicine

400T The effects of *myoglianin* knockdown on a *Drosophila melanogaster* model of myotonic dystrophy type 1 **Eleni Kepler** University of Mary Washington

401T Pvr Modulation in a *Drosophila* model for myotonic dystrophy type 1 **Ginny Morriss** University of Mary Washington

402T *Drosophila* modeling to uncover causal genes and mechanisms within human sleep GWAS loci **Torrey Mandigo** Massachusetts General Hospital

403T Effects of developmental nicotine exposure on egg-laying behavior **Kathryn Macy** Lewis & Clark College

404T ModelMatcher: an online resource to facilitate cross-disciplinary collaborations between scientists, clinicians, patients and beyond **Shinya Yamamoto** Baylor College of Medicine

405T Refining Tribbles biosensors to detect Slbo (C/EBP) substrate interactions in vivo **Leonard Dobens** UMKC

- 406T** The Role of *RAB5A* Variants in Bipolar Disorders **Jonathan Andrews** Baylor College of Medicine
- 407T** Modeling X-Linked Adrenoleukodystrophy with a comprehensive study of *Abcd1* (*CG2316*) in *Drosophila* **Sharayu Jangam** Baylor College of Medicine
- 408T** Mob4's phospho-binding motif is essential for viability and neuronal function **Amanda Neisch** Rutgers University
- 409T** *Drosophila* modeling uncovers a previously unrecognized steroid hormone defect in a patient with *BUD13*-related progeroid laminopathy **Mikiko Oka** Baylor College of Medicine
- 410T** Tumor-secreted vesicular Hedgehog disrupts kidney filtration to drive cancer cachexia **Wei Song** Medical Research Institute of Zhongnan Hospital
- 411T** Unexpected Molecular Mechanism of Orc6-Based Meier-Gorlin Syndrome: Insights from a Humanized *Drosophila* Model **Igor Chesnokov** University of Alabama at Birmingham
- 412T** Regulation of *anne* gene expression in the larval midgut **Dashiell Desravines** University of Central Florida
- 413T** Altered regulation of *IKK* genes in a *Drosophila* model of the human neurodegenerative disease SCA3 **Heidi Beal** University of Richmond
- 414T** Altered TNF signaling in a *Drosophila* model for SCA3 **Lily Byam** University of Richmond
- 415T** *Drosophila* Glioma associated Inflammation leads to Hemocyte-Infiltration through Breakdown of the Blood–Brain Barrier **Venkata Satya Devi Burugupalli** University of Dayton
- 416T** Comparing protein nitration levels in vulnerable and non-vulnerable parkin-null *Drosophila* neurons **Lori Buhlman** Midwestern University
- 417T** Discovery of the Alp/Enigma gene family in *Drosophila* identifies an essential role for the PDZ domain protein Uchmaz in muscle assembly **Ebru Robinson** San Diego State University-UC San Diego
- 418T** Differential recruitment of signaling pathways downstream of Ras regulate pleiotropic effects of neurofibromin **Anneke Knauss** University of Iowa
- 419T** Comparisons of motor and neural phenotypes in TBI and PD *Drosophila* models **Kendal Davis** Lafayette College
- 420T** Cortex glial subtypes are regionally specialized and differentially regulate seizure susceptibility **Govind Kunduri** National Cancer Institute
- 421T** Identification and Functional Analysis of Novel Neurofibromin-Interacting Proteins **Alex Dyson** Massachusetts General Hospital
- 422T** The differential effects and mechanisms of the MEK-ERK pathway in neurodegeneration and axon integrity in fly and mouse models **Yanshan Fang** SIOC, Chinese Academy of Sciences
- 423T** Early social isolation sensitizes *Drosophila* for subsequent TDP-43 pathological spread, activation of endogenous retroviruses, and neurodegeneration **Swetha Murthygowda** Stony Brook School of Medicine
- 424F** The microcephaly-associated protein Abnormal Spindle promotes proper neurogenesis and neuronal cell fate via its interaction with Protein Phosphatase 2A. **Steven Florez** University of Wyoming
- 425F** Modeling a human Pericentrin MOPD II variant in *Drosophila* **Makenzie Thomas** National Institutes of Health
- 426F** Age- and Sex- Dependent Mitochondrial and Metabolic Dysregulation in a *Drosophila* Model of PLA2G6-Associated Neurodegeneration **Rubaia Tasmin** Texas Tech University
- 427F** Zika Virus NS4B Protein Activates the UFMylation pathway via UBA5 to Cause Microcephaly **Uchechukwu Mgbike** University of Utah
- 428F** Nephilysin-like 15 Modulates Sex-Specific Metabolic Homeostasis Through Reduced Insulin Signaling and Dietary Restriction-Like Adaptations in *Drosophila melanogaster* **Shahira Arzoo** Texas Tech University
- 429F** FlyCAR: A CAR-macrophage model in *Drosophila melanogaster* **Barbara Jusiak** University of California, Irvine
- 430F** Investigating sleep and circadian rhythm disruption and resulting metabolic impacts in flies modeling C9ORF72-FTD **Kendall Eby** Providence College
- 431F** Functional suppression of amyotrophic lateral sclerosis/frontotemporal dementia (ALS/FTD) associated neurodegeneration by a reduction in stress granule-associated genes encoding RNA binding proteins **Emily Sarkisian** Brown University
- 432F** Effects of disease-associated, activating mutations in Rac on cell migration and cannibalism in *Drosophila* border cells **Morgan Smith** University of California, Santa Barbara
- 433F** Understanding the role of *Drosophila* trachea (Vasculature) in brain tumorigenesis **Paul Orih** University of Melbourne
- 434F** The TMEM161B ortholog, Emei, is an essential protein localised to the endoplasmic reticulum and is a member of a conserved protein superfamily **Fernando Wijaya** University of Melbourne
- 435F** A novel role for the E2F transcription factor and the ER stress sensor IRE1 in cytoplasmic DNA accumulation **Nam Sung Moon** McGill University

- 436F** Optimized Anti-Epileptic Screening for Pharmacoresistant Epilepsy Using *Drosophila* **Julie Cohen** Tulane University
- 437F** Elucidating multiple hereditary exostoses (MHE) pathogenic mechanisms using *Drosophila* model **Dexter White** University of Minnesota
- 438F** Loss of calcium-binding protein *Cbp53E* leads to delayed repolarization of photoreceptor cells in *Drosophila* **David Ronderos** University of Mary
- 439F** A role for cellular senescence in a *Drosophila* TDP-43 model of Amyotrophic Lateral Sclerosis and Frontotemporal Dementia **Meagan Beal** Stony Brook University
- 440F** Whole-brain single-cell transcriptomic profiling in CHCHD10-related ALS-FTD *Drosophila* models **Do Won Ham** University of Minnesota Duluth
- 441F** Defining the Role of Serrate in Indirect Flight Muscle Regeneration in *Drosophila melanogaster* **Arpitaa Sharma** University of Minnesota Duluth
- 442F** Investigating developmental lethality caused by pan-neuronal expression of human amyloid beta 42 in *Drosophila melanogaster* **Robert Cunningham** University of California, Santa Cruz
- 443F** Establishing an Eye Model for Studying Human Urate Homeostasis using White-eyed GMR-GAL4 **Maeve Bolton** University of Minnesota Duluth
- 444F** DIP2A regulates neural DAG homeostasis: functional analysis of disease-associated variants in *Drosophila* **Yohei Nitta** Baylor College of Medicine
- 445F** *ABCA1* and *ABCA7* regulate glial lipid droplet formation and neuroprotection in Alzheimer's disease models **Seun Bamisaye** Texas A&M University
- 446F** Repurposing FDA-Approved PDE4 Inhibitors to Rescue Mitochondrial Dysfunction in CHCHD10^{S59L}-associated ALS-FTD **Swati Maitra** College of Pharmacy, University of Minnesota, Duluth
- 447F** Glypican-4 affects lifespan and axon sprouting in Alzheimer's disease models **Jaeda Coutinho-Budd** University of Virginia
- 448F** DNA replication in fat body links the NF- κ B *Relish* to sickness sleep **Julie Williams** University of Pennsylvania Perelman School of Medicine
- 449F** The Protective Role of lncRNA NEAT1_1 Against ALS-FTD-linked CHCHD10^{S59L} toxicity in *Drosophila* **Lixia Xu** University of Minnesota
- 450F** Impaired Glial Phagocytosis Leads to Neuroinflammation and Neurodegeneration in Aging *Drosophila* **Katherine Farfan** Boston University
- 451F** Exploring dietary effects on renal stone formation in *Drosophila melanogaster* **Brianna Rhodea** Grand Valley State University
- 452F** *De novo* variants in *BRSK1* are associated with neurodevelopmental disorders **Mingxi Deng** Baylor College of Medicine
- 453S** Identification of an actin-mitochondria-glutamate pathway underlying epilepsy: digenic diagnosis of patients and treatment **Shenzhao Lu** Baylor College of Medicine
- 454S** Functional consequences of cardiomyopathy mutations in alpha-actinin-2 **Ben Smith** Oakland University
- 455S** The human antimicrobial peptide, LL-37, mitigates amyloid beta-induced deleterious effects on apoptosis, motor function, longevity, and gene expression in Alzheimer's disease model *Drosophila* **Aranza Gomez** University of California, Santa Cruz
- 456S** Exploring how the human μ -opioid (MOR) affects Notch signaling in *Drosophila* **Ashley Wolter** University of Minnesota
- 457S** Regulation of Neuroprotective Lipid Droplets in a Humanized Model of Alzheimer's Disease Reveals APOE as a Pivotal Determinant of Neurodegeneration **Alexis Breeland** Texas A&M University College Station
- 458S** Investigating the Effects of Lion's Mane Mushroom and Silkworm Pupae on Amyloid Plaque Burden in the Mushroom Bodies of *Drosophila* Alzheimer's Models **Elisabedi Kontridze** George Mason University
- 459S** Phenotypic Characterization of Synthetic Amyloid Beta (A β) Mutations in a *Drosophila* Model of Alzheimer's Disease **Kaia Levy-Kanenaga** University of California, Santa Cruz
- 460S** Utilizing a *Drosophila* model to Investigate Metabolic shift in Snyder-Robinson Syndrome **Tracey Nassuna** University of Chicago
- 461S** Cross-species multi-omics mapping of APC/KRAS-driven metabolic networks **Mahima Bharti** Huntsman Cancer Institute, University of Utah
- 462S** Investigating whether the human antimicrobial peptide, LL37, can ameliorate the neurodegenerative phenotypes induced in *Drosophila* by expression of the human amyloid alpha (A α) peptide **Jazmin Chavez** University of California, Santa Cruz
- 463S** A specific *WARS2* variant is associated with Parkinsonism **Prajakta Deshpande** Baylor College of Medicine
- 464S** Targeted modifier screen of spinocerebellar ataxia dendritic arbor defect using a neuronal β -spectrin protein interactome **Matthew Thiel** Oakland University
- 465S** NAD⁺ synthase NMNAT confers protection against DPR neurotoxicity in a *Drosophila* model of ALS **Federica Bertolotti** University of Chicago

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466S Tumor induced peripheral biotin deficiencies precede cachexic wasting **Kenia Grimaldo** Sam Houston State University

467S DEG/ENaC channel PPK1 is required for wound-induced chemical-allodynia **Vanessa Pando** New Mexico State University

468S Neuroprotection via glial lipid droplet formation requires endocytosis and mitochondrial complex I function in neurons and in glia **Christian Gonzalez** Texas A&M University

469S Cocaine Increases Dopamine Signaling in the adult *Drosophila melanogaster* Mushroom Body **Samantha Webster** University of Virginia

470S The Atossa-Porthos pathway regulates neuronal survival in an Alzheimer's disease model of *Drosophila melanogaster* **Allison Birnbaum** University of California, Los Angeles

471S Anchor knockdown in the Insulin producing cells decreases ethanol sensitivity and increases ethanol preference **Emmanuelle Palmieri** University of Maryland, Baltimore County

472S Activation of BMP signaling and transcriptional target Trio modify ALS models in *Drosophila melanogaster* **John Clancy** Brown University

473S A modifier screen reveals relationship between tau and nucleoporins **Gio Kim** Johns Hopkins University

474S Lipid metabolism as a potential mediator of sleep disturbances in *Drosophila* models of neurodegeneration **Diane Youngstrom** University of Pennsylvania

475S Suppression of dRUFY Rescues Synaptic and Motor Deficits by Restoring Lysosomal Distribution in a *Drosophila* FUS-ALS Model **Christian Tirrito** University of Pennsylvania

476S Unraveling the Synergistic Toxicity of GGCCTG and Dipeptide Repeats in a SCA36 *Drosophila* Model **Cheng-Tsung Hsiao** Baylor College of Medicine

477S *Drosophila* disease model of RUNX protein mutants using live cell protein and transcription imaging **Jose Vidal** University of Pennsylvania

478S Screening FDA-approved compounds that attenuate seizure expression in a *Drosophila* model of Dup15q syndrome **Selene Tan** University of Alabama

479S Investigating the Role of Oxidative Stress in Traumatic Brain Injury in *Drosophila melanogaster* **Shannon Gibbons** Lake Forest College

480S Reduction of endogenous Uba5 partially rescues Zika virus NS4B-induced neurodevelopmental defects **Isabella Hixson** University of Utah

481S The role of Centrocortin in neurodevelopment **Temitope Adebambo** Emory University

482T Dissecting the Molecular and Circuit Architecture of Courtship Behavior in *Drosophila* Species and Hybrids **Michelle Arbeitman** Florida State University

483T Visualization of the AANATL7 protein in the male accessory gland through generation of a *AANALT-7::mCherry* gene fusion using a co-CRISPR HDR gene conversion approach **Emily Patterson** Grand Valley State University

484T A gene encoding a phospholipase A2 (*tecu*) in *Drosophila melanogaster* plays a role in modulating retinal electrical activity. **Laura Alejandra Lujano Pérez** UNAM

485T Treat yourself: How neurons modulate food perception and impact aging **Elena Walter** University of Michigan

486T Sex-specific roles of the diuretic neuron and its receptors in regulating aggression in *Drosophila* **Siyuan Yang** McLean Hospital-Harvard Medical School

487T Multiple neural circuit elements of *Drosophila* courtship are repurposed from larval life during metamorphosis **Kara Miller** Villanova University

488T Buoyancy increases sensitivity to chemical nociception **Jaime Arroyo** New Mexico State University

489T Evolution of behavioral dynamics underlying mechanosensory oviposition preference in *D. suzukii* **Shawn Mozeika** Rockefeller University

490T Unraveling aspartame induced anxiety: Insights from *Drosophila* **Remy Bao** Centre College

491T Influence of Glyphosate and Roundup on *Drosophila melanogaster* Mating and Courtship Behavior **Ananya Malhotra** California State University, San Bernardino

492T Roundup Super Concentrate Exposure Decreases Activity of *Drosophila melanogaster*: Potential mechanisms **Katherine Bartels** California State University, San Bernardino

493T Embryonic Blm-deficiency leads to sleep and circadian disruption in adult *Drosophila* **Ava Hasenoehrl** Lewis-Clark State College

494T Exploration of Robo3 Function in Hemilineage 14A during Postembryonic Development in the Ventral Nerve Cord **Samuel Herman** University of Missouri-Kansas City

495T A role for proprioceptors in efficient olfactory navigation **Dorian Dale** Indiana University Bloomington

496T Dynamic microbial associations alter chemosensation in *Drosophila melanogaster* **Mia Cacao** Rutgers University

- 497T** Microbial quorum-sensing metabolites modulate insect olfaction and vector competence **Shreya Gokul** Rutgers University
- 498T** Investigating the Contribution of Morphological Divergence to Behaviour Using Artificial Intelligence **Tochukwu Onyeogulu** Oxford Brookes University
- 499T** Neuromodulation of Social Behavior and Aging in *Drosophila* **Tahrim Choudhury** University of Michigan
- 500T** Characterization of sleep and impacts of sleep deprivation on sensorimotor behavior in tethered flight across *Drosophila* species **Redwan Egal** Wellesley College
- 501T** easyClock: a user-friendly tool for circadian rhythm analysis and visualization **Binbin Wu** The Herbert Wertheim UF Scripps Institute for Biomedical Innovation & Technology
- 502F** Experience-dependent modulation of *Drosophila* feeding behavior **Anita Devineni** Emory University
- 503F** Discovery and Development of Anxiolytic Agents from Tropical Marine Algae using *Drosophila melanogaster* as a Behavioral Model **Paola Guzman** University of Puerto Rico Cayey
- 504F** Genetic variation in oviposition and feeding preference under copper stress reveals divergent behavioral responses across *Drosophila melanogaster* recombinant inbred lines **Md Meftahul Zannat** University of Oklahoma
- 505F** Examining Nutrient-Dependent Plasticity of Sleep-Wake Rhythms in *Drosophila* **Kaitlyn Acklin** University of Arkansas
- 506F** Investigating how chronic hunger modulates physiology and aging in *Drosophila* **Megan Moran** University of Michigan
- 507F** Leveraging fungal metabolites for sustainable biocontrol of spotted-wing *Drosophila* **Tia Hart** Rutgers University
- 508F** The Effect of Circadian Rhythm on Social Experience Acquisition and Retention **Ethan Cui** University of Wisconsin-Madison
- 509F** Developmental stage-specific genetic manipulations of the neuropeptide *Pdf* result in sexually dimorphic phenotypes in rhythmic behavior. **Aishwarya Iyer** Indiana University Bloomington
- 510F** Investigating the Novel Role of the Activated Cdc-42-Associated Tyrosine Kinase (ACK1) in Learning and Memory in *Drosophila melanogaster* **Lisa Prazak** Farmingdale State College
- 511F** Fruit flies learn to interact differentially with inanimate objects of varied properties through repeated physical interactions **Kenichi Iwasaki** Harvard University
- 512F** Investigating the larval functions of remodeled mating neurons in *Drosophila* **Kelly Kim** Villanova University
- 513F** Comparative analysis of DAM2 and Zantiks systems for monitoring *Drosophila* activity and circadian rhythms **Jessica Riggs** Lewis-Clark State College
- 514F** Investigating the role of larval abdominal interneurons, A26g, in eclosion behavior **Tejal Sasha Shanker** Villanova University
- 515F** Deep sleep architecture is selectively altered in hyper-aggressive *Drosophila melanogaster* **Olivia DeMeuse** Bucknell University
- 516F** In the Mood for *Yellow*: Understanding how *yellow* impacts female mating behavior in *Drosophila melanogaster* **Ayushi Dasgupta** University of Michigan
- 517F** Comparative analysis of sexually dimorphic neural substrates involved in Alcohol neuroadaptation in *Drosophila* **Alexandra Milán** University of Puerto Rico Rio Piedras
- 518F** A New Mutant, no-day-sleep (*nds*), Exhibits a Specific Loss of Day Sleep **Nathan Pettid** Colorado State University
- 519F** The Puratrophin-1-like (Pura) RhoGEF is necessary for developmental timing, locomotion, and the circadian rhythm patterns in *Drosophila* **Elizabeth Taylor** Louisiana State University
- 520F** Investigating the role of H3Q5 monoamination in glial regulation of visual neurotransmission **Swayam Rath** Rice University
- 521F** Lineage-Based Neural Circuit Organization of the *Drosophila* Larval Brain: Developmental, Structural, and Functional Insights Revealed by the Connectome **Pratyush Kandimalla** California Institute of Technology (Caltech)
- 522F** Social experience alters behaviors by reprogramming the Fruitless pathway and circadian state in *Drosophila* **Pelin Volkan** Duke University
- 523S** A descending neuron supports context-dependent modulation of nociceptive behaviour in *Drosophila* larvae **Jean-Christophe Boivin** McGill University
- 524S** TRPV1-Independent and Sex-Specific Capsaicin Signatures in *Drosophila* **Juan Gerardo Flores Iga** West Virginia State University
- 525S** Unraveling the Novel Genetic Connection Between Insomnia and Cognitive Impairment **Morgan Barkley** University of Alabama at Birmingham
- 526S** Gut microbiome contributes to behavioral phenotype and memory dysfunction in *Drosophila* model of Alzheimer's Disease **Kishore Madamanchi** University of Alabama at Birmingham
- 527S** Acetylcholine and KCl induced endogenous glutamate release adult *Drosophila* brain **Aaditya Sunil Deshpande** University of Virginia

528S Electrochemical detection of serotonin in *sert* mutant *Drosophila* larvae **Emily Miller** University of Virginia

529S miR-10 Knockdown Reveals Cell-Type-Specific Regulation of Obesogenic Behavior **Steven Bradley** Louisiana State University School of Veterinary Medicine

530S Sleep Deprivation and Neurodegeneration in *Drosophila melanogaster*: Investigating the Effects of Practical Sleep Loss Paradigms on a Post-Translational Model of Alzheimer's Disease **Evan O'Neill** Reed College

531S GWAS of microbiome-dependent sucrose feeding in the *Drosophila* **Eric Ntiri** University of Florida

532S AstCC: An arthropod somatostatin is a resilience factor in *Drosophila* wing expansion **David Frankel** National Institute of Mental Health

533S Regulation of feeding initiation and maintenance by Mushroom Body **Caterina Di Felice** California State University, East Bay

534S Neto/Neuropilin activates and amplifies Semaphorin/Plexin signaling to drive homeostatic plasticity **Mihaela Serpe** NIH/NICHD

535S Optimization of *Drosophila* Social Memory Training Parameters Using a Neural Network–Based Curve Fitting **Yung-Ching Lu** National Tsing Hua University

536S Complex Interplay of Hormonal, Neuronal Responses by Gut-Brain Axis to a Deficit in Essential Amino Acids **Boram Kim** Korea Advanced Institute of Science and Technology

537S An α_1 antagonist shows age-dependent efficacy for alcohol use disorder **Lewis Sherer** Brown University

538S Chronic gut inflammation leads to hemocyte dysregulation and sleep deficits in *Drosophila* **Andrew Nguyen** University of Pennsylvania Perelman School of Medicine

539S Evolution of behavioral adaptations to temperature in *Drosophila* species from diverse habitats **Ivan David Mendez Gonzalez** Northwestern University

540S Investigating mating-induced ovulation circuit in *Drosophila melanogaster* **Violet Xiao** University of Connecticut

541S Walking dead: Identifying the drivers of locomotor rhythms in *E. muscae* infected flies **Brandon Fricker** Harvard University

542S Anesthesia-triggered dopaminergic bursts cause active forgetting: a paradigm shift in understanding cold-shock amnesia **Prachi Shah** Georgetown University

543S Abdominal sensory neurons modulate sleep and sickness responses in *Drosophila melanogaster* **Camilo Guevara** University of Pennsylvania

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544T From Mapping the Molecular Clock of *Drosophila* Neurogenesis to Understanding Human Brain Disease **Khaled Ben El Kadhi** New York University Abu Dhabi

545T Glia are required for structural plasticity in mature adult neurons **Justin Blau** New York University

546T Progenitor-Derived Regulatory Logic Generates Functionally Related Neuronal Subtypes **Chundi Xu** HHMI, University of Oregon

547T Role of the Guanine Nucleotide Exchange Factor, *GEFmeso*, in the *Drosophila* Neuromuscular Junction **David Olson** UW-Platteville Baraboo Sauk County

548T Discoidin Domain Receptors Inhibit Dendrite Branching of Nociceptive Neurons **Victoria Lopez** Indiana University

549T Actin drives dendrite tip dynamics, while microtubules regulate diameter in *Drosophila* class IV da neurons **Md Shah Jalal** Yale University

550T Regulation of neuronal development and function by the *Drosophila melanogaster* translation initiation factor *eIF4H1* **Erik Nolan** Washington University in St. Louis

551T Lethal phase analysis, NMJ phenotypes, and allelic comparisons for a new null allele of *wit*, encoding a Type II BMP receptor expressed in the nervous system **Pam Vanderzalm** John Carroll University

552T Early-life infection and immune signaling perturb development **Omina Nazarzoda** University of Virginia

553T Toll-7 acts via distinct signaling axes to promote midline crossing **Sarah Gagnon** University of Pennsylvania

554T Dynamic role of cortex glia in controlling neuroblast behavior during *Drosophila* larval neurogenesis **Sagar Kasar** University of Virginia

555T Larval Supplementation of PUFAs Modulates Adult Motor Function, Neural Circuit Excitability and the Bio-Active Lipid Profile in the Hyperexcitable *Drosophila* Na_v Channel Mutant *para^{Shu}* **Reid Schuback** University of Alabama

556T The role of glial ER membrane protein complex subunit 4 (EMC4) in larval development and behavior **Inés Riojas** Lake Forest College

557T Variation in neural stem cell spatial patterning predicts distinct neuronal populations between two flies, *Drosophila melanogaster* and *Megaselia abdita* **Sam Swank** University of Chicago

558F TRMT1, a tRNA methyltransferase linked to intellectual disability, functions in glia to promote memory **Kate O'Connor-Giles** Brown University

- 559F** *sens-2* is essential for proper 10B axonal projection patterns **Marianne Maughan** University of Missouri-Kansas City
- 560F** The role of Transglutaminase in *Drosophila melanogaster* Brain Development and Function: The Case of Dopaminergic Neurons **Isidora Almonacid Torres** Pontificia Universidad Católica de Chile
- 561F** Notch-dependent gene regulatory networks drive neural specification in the *Drosophila* medulla **Yu Zhang** University of Illinois at Urbana-Champaign
- 562F** The importance of pH dynamics in development **Erin Santana** University of Montana
- 563F** Control of neuron size and arborization growth through the Insulin/TOR signaling pathway **Ryan Cheng** King's College London
- 564F** Investigating the Roles of Nmdar2 and M6 in Schizophrenia **Ten Harder** Boston University
- 565F** How do astrocytes grow and function in the nervous system? **Jiakun Chen** The University of North Carolina at Chapel Hill
- 566F** Dissecting synapse development and pruning in the *Drosophila* model of neurofibromatosis type 1 **Cole Collins** University of Iowa
- 567F** Posttranscriptional control of cytoskeletal regulators during neuronal remodeling **Elizabeth McManus** Princeton University
- 568F** Hmx rewires Hippo pathway signaling to specify and maintain a photoreceptor subtype identity **Bijeta Gautam** University of Massachusetts Boston
- 569F** Role of Early Temporal Factors in Regulating Ensheathing Glia in *Drosophila* Brain **Nicholas Redhouse** University of New Mexico
- 570F** Deep learning-enabled prediction and interpretation of cis-regulatory sequences specific for *Drosophila* neuronal subtypes **Fahad Kamulegeya** Stowers Institute for Medical Research
- 571F** Alterations in GABAergic Signaling in the Hyperexcitable *Drosophila* Na_v Channel Mutant *para*^{Shu} **Aubrey Gray** University of Alabama
- 572S** Temporal Regulation of Gad1 Translation and Activity During GABAergic Neuron Maturation in *Drosophila melanogaster* **Daniel Sytkowski** University of Missouri-Kansas City
- 573S** SPARC is a transcriptional target of BMP signaling that promotes synaptic density and apposition **Quinn Harley** John Carroll University
- 574S** Investigating the Role of *SATB1* in Eye Development and Craniofacial Disorders **Achyut Katti** University of Dayton
- 575S** Structural insights into the Beat-Side interactions reveal roles in *Drosophila* neuromuscular circuit wiring **Vasudha Aher** University of Chicago
- 576S** Gene Regulatory Mechanisms Involved in *Drosophila* Optic Lobe Neuron Specification **Tejus Sreelal** University of Illinois, Urbana-Champaign
- 577S** Role of a novel transmembrane protein in localizing a visual signaling complex to the light-sensing compartments **Caroline Wong** University of Massachusetts Boston
- 578S** IgSF cell adhesion molecules restrict synaptic growth at fly larval and adult NMJs **Robin Mitchell** University of Chicago
- 579S** Astrocytic DYRK1A overexpression induces neurodegenerative phenotypes in *Drosophila melanogaster* and mammalian astrocytes *in vitro* **Pablo Cisternas** University of Notre Dame
- 580S** Investigating a Role for Ecdysteroid Reception in Glia of Peripheral Nerves During *Drosophila* Metamorphosis **Donovan Lundy** Miami University
- 581S** Two cell surface protein subfamilies modulate axon terminal morphology of *Drosophila* motor neurons **Idris Ayantoye** The University of Chicago
- 582S** An ecdysone-independent role for the EcR-B1 receptor in neural stem cell temporal patterning **Gary Chatha** University of Toronto
- 583S** Concurrent temporal patterning of neural progenitors in the developing *Drosophila* optic lobe **Yasir Al-Zubaidy** University of Toronto
- 584S** Metabolic stress activates neurodegenerative and neuroprotective signaling in the motor system **TJ Waller** University of Michigan
- 585S** Mechanisms of Glial Response to Neural Injury and Facilitation of Neural Repair **Alina Rashid** The Children's Hospital of Philadelphia
- Patterning, Morphogenesis, and Organogenesis**
- 586T** A quantitative model of phenotypic variability **Alison Simpkins** Princeton University
- 587T** The Role of Akirin and Its Conserved SYLS Motif in *Drosophila* Muscle Development **Shaila Akter** Kennesaw State University
- 588T** Broad expression regulation in egg chamber cells by the ecdysone and JAK/STAT signaling pathway in *Drosophila* **Andrea Bello-Gamez** Kennesaw State University
- 589T** Screening Essential Genes for *Drosophila* Squamous Cell Development **Kylie Speer** Kennesaw State University

- 590T** Splicing mediated by U2-associated Scaf6/CHERP is necessary for myogenesis in *Drosophila* and vertebrates **Maria Spletter** University of Missouri Kansas City
- 591T** microRNA-274 is essential for early head and eye formation **Jin Seo** Rogers State University
- 592T** *kayak* is required for photoreceptor development and corneal patterning in the fly eye **Manuel Alejandro Zuniga Garcia** Universidad Nacional Autónoma de México
- 593T** Downstream transcriptional targets of *Drosophila* Egf receptor signaling play roles in eggshell morphogenesis **John Tondora** Wilkes University
- 594T** Investigating the function of Ecdysone during dorsal closure in *Drosophila* embryogenesis **Jae Ho Lee** Case Western Reserve University
- 595T** Developmental ionome of a *Drosophila* multispecific transporter mutant **Breanna Leach** Wichita State University
- 596T** Arginine kinase1 controls flight muscles development by regulating energy homeostasis **Maria Paula Zappia** University of Illinois at Chicago
- 597T** An *ex vivo* embryonic midgut model reveals a calcium-driven mechanism for tissue folding **Emily Hendricks** The University of Chicago
- 598T** Understanding the Role of HOX genes in Early development of the *Drosophila* Ovary **Joanna Portillo** Johns Hopkins University
- 599T** Eye or Head? The Antagonistic interaction between Dpp–Dve in Fate Specification **Anjali Sangeeth** University of Dayton
- 600T** Number not programmed
- 601T** The first cell fate decision is made in the plasma membrane **Marcus Kilwein** Princeton University & Simons Foundation
- 602T** The GPCR Pathway Mediating Apical Constriction in the *Drosophila* Salivary Gland Requires the Transcription Factor Hucklebein for Appropriate Trafficking of its Ligand, Folded gastrulation (Fog) **Ashleigh Shoemaker** Johns Hopkins School of Medicine
- 603T** Non-Canonical Role of Septate Junctional Proteins in Border Cell Migration of *Drosophila* **Amita Nanda** Case Western Reserve University
- 604T** How Do We Build a Muscle? Let Me Count the Genes... **Camille Santana** Kennesaw State University
- 605T** Deciphering EGFR Signaling in *Drosophila* renal development **Hayden Gizinski** University of Washington
- 606F** Arc1 and Acetobacter *aceti* collaborate to regulate early brain growth in *Drosophila* larvae **Sam Nance** Carnegie Mellon University
- 607F** Trade-offs between Dorsal gradient robustness and Cactus lifetime **Anuj Pradhan** Texas A&M University
- 608F** The Drop Out Kinase is Essential for Proper Hedgehog Signaling **Omar Talaat** Northwestern University
- 609F** Golgi-localized PI 4-kinases drive microvilli biogenesis and membrane compartmentalization in cellularization **Zuzana Burdikova** Dartmouth College
- 610F** Investigating Membrane Trafficking of Glypicans **Tochukwu Okafor** University of Massachusetts, Lowell
- 611F** No Sexual Dimorphisms on *Drosophila* Heart Tube Formation **Rafael Perez Vicente** University of Toronto
- 612F** Functional evolution of anterior determinants in dipteran embryos: Target genes of maternal Odd-paired in the moth fly *Clogmia albipunctata* **Maxwell Devine** University of Chicago
- 613F** The Role of GPCR Signalling and Mechanobiology in Tubular Organ Morphogenesis **Katherine Hutchings** Johns Hopkins University
- 614F** The Hippo pathway and matrix metalloproteinases regulate coordinated growth between two epithelial layers in the *Drosophila* wing disc **Edgar Zepeda** University of California, Berkeley
- 615F** Developmental Mechanisms of Wing Hinge Morphogenesis **Mahruba Sultana Niloy** Waksman Institute, Rutgers University
- 616F** PI4-Kinase Fwd Regulates Cell Surface Expansion and Epithelial Morphogenesis in *Drosophila* Embryos **Sophia Micale** Dartmouth College
- 617F** Quantitative Proteomics of Cell Fate Specification in the Early *Drosophila* Embryo **Argit Marishta** Princeton University
- 618F** Investigating the roles of sphingolipid glycosylation enzymes in *Drosophila* border cell migration **Cang-Xian Li** National Sun Yat-Sen University
- 619F** Genetic screen for nuclear membrane protein that interacts with *dysfusion* in *Drosophila* oogenesis **Kuan-Lin Lai** National Cheng Kung University
- 620F** The *Drosophila* micropyle is shaped through reciprocal interactions between follicle cells and the chorionic extracellular matrix they secrete **Kristin Sherrard** University of Chicago
- 621F** Systematic Characterization of Phosphatases Implicated in BMP-Dependent Wing Patterning and Growth in *Drosophila* **Caitlin Frank** University of Notre Dame
- 622F** Genetic regions influencing dorsal closure in *Drosophila*: Using a 3R deficiency screen to investigate cell sheet morphogenesis **Catherine Pyne** Duke University
- 623F** 3D Chiral Morphogenesis of the Embryonic Midgut, Part I: Dynamics and Mechanics **Chris Anto** The University of Chicago

624F Genetic Control of Dorsal Closure: Morphological Mutations in Embryogenesis Identified in Chromosome 3R Deficiency Screen **Pauline Ann Jonglertham** Duke University

625F Control of cell division orientation by patterned cell-surface receptors during axis elongation **Chloe Kuebler** University of Arkansas

626S Assembly and Age-Related Degeneration of the *Nasonia vitripennis* Oosome **Fariha Islam** University of Illinois Chicago

627S Dissecting Cis- and Trans-Regulation of Notch during *Drosophila* Wing Vein Refinement **Zachary Baker** The University of Chicago

628S Identifying key genetic regions for cell sheet morphogenesis on chromosome 3R using a *Drosophila* deficiency screen in dorsal closure **Khang Huynh** Duke University

629S Molecular Sponge Reveals the Importance of Steroid Hormone Ecdysone in Regulating Salivary Gland Morphology in *Drosophila melanogaster* **April Ford** Kennesaw State University

630S The role of Slit-Robo signaling in Caudal Visceral Mesoderm (CVM) migration during embryogenesis **Annarosa Volovets** University of St. Thomas

631S The serine-like protease *masquerade (mas)* plays an important role in tracheal tube formation **Faith Karpah** University of St. Thomas

632S FGF signaling regulates epithelial stability during *Drosophila* dorsal closure **Mina Amini** Duke University

633S Roles for *jumeau* and *Checkpoint suppressor 1-like* in alary muscle morphogenesis: expanding the cardiogenic functions of Fox genes **Kuncha Shashidhar** Indiana State University

634S Defining supporting structures: the Back seat driver kinase orchestrates the development of heart-anchoring alary muscles **Brady Verdon** Indiana State University

635S Reconstructing the modular effector subnetworks that enable a Fox transcription factor to generate diverse cardiac progenitor cell divisions **M. Rezaul Hasan** Indiana State University

636S Dissecting the individual and combined roles of *Drosophila spalt* paralogs in heart tube morphogenesis to model SALL1/4-linked congenital heart defects **Mofazzal Karim Sabbir** Indiana State University

637S Dissecting Fox transcription factor-mediated regulation of Polo kinase activity essential for cardiac progenitor cell divisions **Rajnandani Katariya** Indiana State University

638S *Drosophila no ocelli* as a model for human *ZNF503* function: regulation of cardiac progenitor cell divisions in heart development **Mofazzal Karim Sabbir** Indiana State University

639S Dual mechanisms of cardiac patterning: Fox genes ensure proper cardiac cell positioning by regulating progenitor cell divisions and repressing ECM genes **Rajnandani Katariya** Indiana State University

640S Twin roles of the zinc finger transcription factor Castor: specification of cardiac cell subtypes and regulation of cardiac progenitor cell division **Rajnandani Katariya** Indiana State University

641S Role of PAPS synthetase in regulating apical extracellular matrix during salivary gland morphogenesis **Rutuparna Joshi** Louisiana State University

642S On organ form and function: quantifying shape variation in the *Drosophila* renal system **Vesta Baumgartner** University of Washington

643S A new mutation in *zipper* exhibits dominant negative character **Melissa Sican** Duke University

644S Genetic Control of Dorsal Closure: Morphological Mutations in Embryogenesis Identified in Chromosome 3R Deficiency Screen **Nawra Roya** Duke University

645S *Drosophila* Trus, the orthologue of mammalian PDCD2L, is required for proper cell proliferation, larval developmental timing, and oogenesis **Saeko Takada** University of Minnesota

Physiology, Metabolism, and Aging

646T Identifying Novel Regulators of Food Consumption through Genome-Wide Association Study and Chemoconnectome Screening in *Drosophila* **Mubaraq Opoola** University of Louisville

647T Metabolic resilience and developmental timing: Arc1 requirement during dietary challenges **Madhulika Rai** University of Colorado Anschutz Medical Campus

648T Intestinal barrier dysfunction promotes brain and muscle aging phenotypes in young flies **Anna Salazar** Christopher Newport University

649T Distinct Chromatin States Coordinate Genome-Wide Rhythmic Gene Expression in *Drosophila* Photoreceptors **Gaoya Meng** Purdue University

650T Glut1 functions in the *Drosophila* intestine to regulate growth and food consumption **Vladyslav Dribnokhod** Penn State Berks

651T Neuronal 9G8 functions in NPF-expressing neurons to regulate organismal triglyceride storage **Lauren Conrad** Penn State Berks

652T Drosulfakinin-CCKLR Signaling Coordinates Feeding Behavior and Lipid Metabolism in *Drosophila melanogaster* **Daniel Abramov** Penn State Berks

- 653T** Extreme QTL mapping of radiotolerance uncovers a connection with innate immune responses **Shahrzad Hajjarbabi** University of Houston
- 654T** Functional Characterization of Hsp110 in *Drosophila* Reveals its Essential and Dosage-Sensitive Role in Nervous System Integrity **Sheng Zhang** McGovern Medical School at The University of Texas Health Science Center at Houston (UTHealth)
- 655T** Targeted Methuselah Antagonism in Insulin-Producing Cells Extends Healthspan in *Drosophila melanogaster* **Ravi Ranjan** California Northstate University Health Sciences
- 656T** The discovery of the *Drosophila* a key integrator between the microbiome and lipid absorption **Joshua Derrick Johns** Hopkins University
- 657T** Does *Drosophila* have a mammalian LAT1 ortholog and why do we care? **Skylar Zern** University of Central Florida
- 658T** Absence of Chloride Intracellular Channels (CLICs) confers resistance to hypoxia via differential regulation of ERK and AKT pathways **Shubha Gururaja Rao** Ohio Northern University
- 659T** Whole organism single-nucleus RNA sequencing at unprecedented resolution reveals the systemic impacts of inflammaging **Tyler Jackson** Baylor College of Medicine
- 660T** Precocious: a novel micropeptide regulator of *Drosophila* development, metabolism and stress response. **Shyama Nandakumar** University of Pittsburgh
- 661T** Identification and functional characterization of a potent inhibitor of ecdysteroid biosynthesis **Eisuke Imura** University of California, Riverside
- 662T** Maternal diet influences the embryo's developmental trajectory and offspring phenotype in *Drosophila melanogaster* **Krittika Sudhakar** Van Andel Institute
- 663T** ERR and HSF cooperatively regulate cellular metabolism **Yuan Feng** Indiana University
- 664T** Establishment of *Drosophila* Intestinal Cell Lines to Expand *In Vitro* Models Supporting New Approach Methodologies **Arthur Luhur** Indiana University Bloomington
- 665T** Superoxide dismutase knockdown has sex-specific effects on lifespan and healthspan **Denise Horner** University of Alabama at Birmingham
- 666F** GATOR2 regulation of MiTF **Richard Garcia** NICHD, NIH
- 667F** The function of the TORC1 regulator GATOR2 in the Response to Nutrient Stress **Chun-Yuan Ting** NICHD, NIH
- 668F** Using *Drosophila* to determine precise exercise timing and regimentation for maximum benefit in Kennedy's Disease **Rima Mashni** Wayne State university
- 669F** Reduced levels of Methylenetetrahydrofolate reductase impact mortality and climbing behavior after exposure to hypoxia in *Drosophila melanogaster* **Nora Jones** Southern Illinois University Carbondale
- 670F** Reduced levels of Methylenetetrahydrofolate reductase reduced apoptosis and increased phagocytosis after exposure to hypoxia in *Drosophila melanogaster* **Alek Abell** Southern Illinois University Carbondale
- 671F** Investigating the Roles of *Drosophila melanogaster* Seminal Fluid Components in Male Reproductive Senescence **Zhuo Chen** Michigan State University
- 672F** During starvation calcium signaling across the *Drosophila* fat body is required for the release of lipids **Carson Walters** Northwestern University
- 673F** Investigating the Fas Apoptosis Inhibitory Molecule (FAIM) in *Drosophila melanogaster* **Edgar Cedillo Aguilar** Grand Valley State University
- 674F** Genotoxic effects of lead, cadmium, and arsenic combinations in *Drosophila* **Aaron Richards** University of Colorado Boulder
- 675F** Exercise benefits are inherited inter- and trans-generationally in *Drosophila* **Zachary Chbihi** Wayne State University
- 676F** *Lamp1* deficiency alters lipid metabolism in larval midgut **Gustavo MacIntosh** Iowa State University
- 677F** Age-dependent decline of Pex5 ubiquitination underlies peroxisome dysfunction in *Drosophila* **Muqiu Li** Iowa State University
- 678F** Functional characterization of *CG5577* in *Drosophila melanogaster* as a potential ortholog to *PDXP/CIN* **Abigail Tramell** Vassar College
- 679F** Determining the mechanisms that underlie Alzheimer's Disease induced changes in circadian behavior. **Makayla Marlin** Purdue University
- 680F** Investigating chromosomal rDNA instability and extrachromosomal rDNA amplification during aging **Daisy Rubio** Stony Brook University
- 681F** Touch and Go: Mechanoreceptor activation in *Drosophila melanogaster* induces context-dependent dynamic valence responses and lifespan modulations **Jane Kruskop** University of Michigan
- 682F** Bacterial association drives distinct diet-dependent responses to growth in *Drosophila melanogaster* **Jacob Werner** Carnegie Mellon University
- 683F** Role of plasmalogen in non-autonomous regulation of cardiac health in *Drosophila* **Zitong Xiong** Iowa State University

684F The impact of gut health on brain and muscle decline
Concepcion Ibarra Christopher Newport University

685S The effect of perfluorooctanoic acid (PFOA) on lifespan, locomotor behavior, and immune gene expression of aging *Drosophila* **Megan Netzelman** The University of Alabama

686S *Nep15* Affects Lifespan, Aging, and Physiological and Cytological Traits in *Drosophila melanogaster* **Chase Drucker** Texas Tech University

687S RalA/exocyst mediates Nf1-regulated metabolism through a neuronal mechanism in *Drosophila* **Dangran Li** University of Iowa

688S Identifying the ion transporters mediating manganese toxicity in adult *Drosophila* **Mark VanBerkum** Wayne State University

689S Sex-specific differences in the *Drosophila melanogaster* response to arsenic exposure **Jason Tourigny** Indiana University

690S Proline metabolism serves a protective role against chemical stress in *Drosophila melanogaster* **Ayaka Obata** Indiana University Bloomington

691S miR-10 Overexpression Phenocopies Huntingtin Loss to Drive Hyperphagia in *Drosophila* **Hafsa Haq** Louisiana State University

692S MEI-P26 links paternal Western diet exposure to altered neuronal metabolism and mitochondrial function in *Drosophila melanogaster* **Tolulope Olaolorun** Louisiana State University

693S Proline does more than put kinks in your peptides **Thomas Kaufman** Indiana University

694S Cellular remodeling of citrate metabolism shapes tissue plasticity during enteric infection **Abigail Bauder** Texas A&M University Naresh K. Vashisht College of Medicine

695S Dissecting Rapamycin-sensitivity across diverse genetic backgrounds of *Drosophila melanogaster* **Tricia Zhang** Institute for Stem Cell and Regenerative Medicine, University of Washington

696S Alkylglycerol Supplementation Boosts Plasmalogen Levels and Extends Lifespan in *Drosophila melanogaster* **Marlene Dorneich-Hayes** Iowa State University

697S Highly dynamic regulation of SLC2A carbohydrate transporters by developmental time and dietary nutrients in the *Drosophila* larval fat body **Leila Jamali** University of Virginia

698S TORC2 Regulation of Autophagy and Its Impact on Longevity **Pritika Pandey** University of North Carolina

699S The Effects of Longterm Sialic Acid Exposure on Lifespan Longevity within *Drosophila melanogaster* **Carly Mosier** Southern Illinois University - Edwardsville

700S Measuring water consumption after sleep deprivation in *Drosophila melanogaster* **Katie Traeger** University of Alabama

701S Characterization of Adiposyn, a possible fat-to-synapse circulating signal that regulates metabolism **Giulia Tintorri** University of Utah

702S Exploring individual variation in toxic response using wild, isogenic, and constructed heterozygous flies **Thomas Merritt** Laurentian University

703S Age-associated sarcomere branching is a conserved feature of skeletal muscle remodeling **Shree Chaitranjali Yadla** National Institutes of Health

704S Evaluating the Effects of ZYN Nicotine Exposure on Fetal Development in *Drosophila Melanogaster* **Trinity Rangel** California State University San Bernardino

Regulation of Gene Expression

705T Transcriptional regulation of Bithorax Complex genes defines adipocyte heterogeneity in *Drosophila* **Rajitha-Udakara-Sampath Hema-Waduge** Tulane University School Of Medicine

706T Validating evolutionarily conserved functions of human genes in the *Drosophila melanogaster* egg chamber system **Makenna Dunkel** Kennesaw State University

707T Traffic Jam activates the *Flamenco* piRNA cluster locus and the Piwi pathway to ensure transposon silencing and *Drosophila* fertility **Nelson C Lau** Boston University School of Medicine

708T Defining the contributions of transcription factor-RNA interactions to coregulated gene expression in dosage compensation **Lauren Hodkinson** Brown University

709T Global map of Bicoid properties reveals cooperative DNA binding is enhanced by nucleosome competition **Sadia Siddika Dima** Texas A&M University

710T Angel Wing: a class of alternative splicing regulators in animals **Yikang Rong** University of Iowa

711T Use of a *Drosophila* continuous mesodermal/muscle cell line to study *Hox* regulation in cardiac development **Kristopher Schwab** Indiana State University

712T *trithorax (trx)* and *trithorax group (trxG)* regulation of *Hox* gene expression and anterior-posterior patterning within the *Drosophila* embryonic heart tube **Kristopher Schwab** Indiana State University

713T *Polycomb (Pc)* and *Pc Group (PcG)* genes repress *trithorax (trx)*-mediated *Hox* expression and patterning within the *Drosophila* embryonic heart tube **Kristopher Schwab** Indiana State University

- 714T** Transcriptional Regulation of Stochastic Cell Fate Specification in the *Drosophila* eye **Emma Steinson** Johns Hopkins University
- 715T** The phenotypic nonspecificity of cell to cell signalling in *Drosophila melanogaster* **Anthony Percival-Smith** University of Western Ontario
- 716T** Multiple isoforms of CELF homolog Bru1 are required for indirect flight muscle development in *Drosophila* **Jenna DeCata** University of Missouri-Kansas City
- 717T** Molecular mechanisms underlying neural-specific splicing and 3'UTRs **Xin Yu Zhu Jiang** Weill Cornell/MSKCC
- 718T** Direct and indirect regulation of target gene expression by JAK/STAT signaling during epithelial patterning in *Drosophila* **Laura Nilson** McGill University
- 719T** Mito-Nuclear Signaling in Mitochondrial Biogenesis and Cellular Stress Responses **Shane Grele** National Institutes of Health
- 720F** Identification of direct Bruno 1 RNA targets and protein interactors supports Bruno 1 isoform-specific function in *D. melanogaster* indirect flight muscle (IFM) **Aaron Morgan** University of Missouri Kansas City
- 721F** Identification of a candidate akirin enhancer sequence **Alyssa DeSantis** Kennesaw State University
- 722F** Uncovering Sage's Collaborative Role in Salivary Gland Gene Regulation **Nathaniel Laughner** Johns Hopkins University
- 723F** Motif-driven nucleosome positioning represses chromatin accessibility **Melanie Weilert** Stowers Institute for Medical Research
- 724F** Mapping Stop Codon Readthrough in the Adult *Drosophila* Brain at Single-Cell Resolution **Lynn Cooley** Yale University School of Medicine
- 725F** Exploring histone locus body initiation mechanisms throughout development **Catherine Nguyen** Emory University
- 726F** Single-Cell Chromatin Accessibility Landscape of the *Drosophila simulans* Ovary and Egg Reveals Regulatory Dynamics of Gene Expression and Transposon Activity **Hayat Khan** North Dakota state University, Genomics, Phenomics, and Bioinformatics
- 727F** Transcriptomic analysis of *Drosophila* models of Retinitis Pigmentosa reveal dysregulation of redox homeostasis and protein folding **Maxwell Shumaker** University of Iowa
- 728F** Genetic mechanisms underlying independently evolved gene expression patterns in distantly related species **Ignatius Andika** Michigan State University
- 729F** Understanding the role of metazoan histone H3 lysine-36 methylation in suppression of cryptic transcription **Gregory Matera** University of North Carolina
- 730F** Inter-dependent SUMOylation uncovers novel interactions within the piRNA pathway **Mikhail Trostnikov** UCR
- 731F** Multisite phosphorylation is required for ERK-dependent downregulation of Capicua **Khandan Ilkhani** University of Massachusetts Boston
- 732F** Ribosome Profiling of Minute Wing Imaginal Discs **Chelsea Nguyen** University of California, Irvine
- 733F** Regulation of mitochondrial homeostasis in stress and disease by the RNA-binding protein Rbfox1 **Sanjushree Nagarajan** MDIBL
- 734S** Testing histone locus body formation requirements **Mandalay Maddox** Lafayette College
- 735S** Understanding the Role of Gene Body Methylation in Zygotic Genome Activation in *Nasonia vitripennis* **Shreya Karuvat Anand** University of Illinois Chicago
- 736S** Mettl3 mediated m6A-modification is required for the development and function of indirect flight muscle in *Drosophila* **Bryan Rose** University of Missouri-Kansas City
- 737S** Silent Messengers of the Western diet: miRNAs Journey from Somatic Cells to Sperm, and to the Embryo **Shallinie Thangadurai** Louisiana State University
- 738S** Engineering Synthetic Transcription Factors to Explore How Activation Domains Shape Shadow Enhancer Logic **Victoria Guarino** Boston University
- 739S** Transcription factor binding site variability does not impact HLB formation at the H3H4p in *Drosophila* **Kaitlin Koreski** Emory University
- 740S** Context-dependent role of Snail repressor in early *Drosophila* development **Kimberly Escobar Alvarado** Stowers Institute
- 741S** Me31B is required during indirect flight muscle myogenesis in *Drosophila* **Jessica Brewer** University of Missouri-Kansas City
- 742S** Novel RNA-binding protein, Pep, regulates RNA processing and development in *Drosophila* **Timothy Ayeni** University of North Dakota
- 743S** From Binding to Building: Characterizing MEF2-Mediated Gene Regulation During Myoblast Differentiation in *Drosophila* **Vincent Cruz** San Diego State University
- 744S** BMP signaling controls the metabolic state and neuromodulatory pathways in Ventral Nerve Cord **Rosario Vicidomini** Eunice Kennedy Shriver National Institute of Child Health and Human Development

745S Doa, but not “dead on arrival”: Investigating links between the Nab2 RNA binding protein (RBP) and Darkener of apricot/CKL2, a kinase that promotes Mettl3 activity in the fly brain
Rebecca McSweeney Emory University

746S Cis-regulatory competence and combinatorial repression shape anterior pair-rule stripe formation in *Drosophila*
Luiz Andrioli USP

747S Glial EMC4 expression levels during development determine the severity of adult-stage physiological and behavioral phenotypes in *Drosophila melanogaster*
Martin Ettlin Cuitino Lake Forest College

Reproduction and Gametogenesis

748T Phosphoregulation of RNA-binding proteins during egg activation
Emily Rivard Cornell University

749T Understanding development of cell size using multiple sperm morphs in *D. pseudoobscura*
Fiona Messer Cardiff University

750T The QxxR motif of the RNA helicase Me31B/DDX6 is essential for female fertility and primordial germ cell development
Ming Gao Indiana University Northwest

751T Ubiquitous *Mettl3* Knockdown in *Drosophila melanogaster* Results in Phenotypic Abnormalities During Spermatogenesis
Cindy Chen Susquehanna University

752T *Mettl3* is required for germline function during *Drosophila* spermatogenesis
Rohan Harris Susquehanna University

753T Tdrd5l promotes male identity in germline stem cells
Caitlin Pozmanter McDaniel College

754T Ecdysone signaling regulates a network of BTB-DBD proteins to control sex-specific gonad development
Samantha Goetting Johns Hopkins University

755T Increased parental age compromises primordial germ cell migration in *Drosophila melanogaster*
Samuel Jones University of Texas at San Antonio

756T *Barentsz* and *CG18622* Regulate gurken Translation During Oogenesis
Max Higbee State University of New York at Fredonia

757T P-elements co-opt Bruno-1 to ensure transposition in the female germline
Erin Kelleher University of Houston

758T Characterization of test-specific sugar transport and glycolysis genes in *Drosophila melanogaster*
Mark Hiller Goucher College

759T Exploring a role for germline Gliotactin during *Drosophila* oogenesis
Kaitlin Laws Randolph-Macon College

760T Stochastic process model of meiotic crossover patterning under hypoxic conditions in the presence of experimental mortality
Spencer Koury Auburn University

761T The niche compensates for catastrophic germ cell loss by altering stem cell cytokinesis
Christie Campbell Drexel University

762T Is the Spindle Orienting Machinery at work in the Female Germline?
Sahel Ghasemzadeh University of Missouri Columbia

763T Juvenile hormone signaling regulates N-Cadherin expression in the male germline stem cell niche
Krystal Goyins University of Texas at San Antonio

764T STIL is specifically expressed and required in the *Drosophila* female germline
Charli Wingfield National Institutes of Health

765T Over-expression of *Eip75B* in ovarian somatic cells disrupts follicular morphogenesis and egg chamber development
Allison Simmons East Carolina University

766T OVO target genes are dependent on OVO and an unknown cofactor for full expression
Lorielle Raab National Institutes of Health

767F Effects of environmental agrotoxins on oviposition habitat choices
Jaron Colunga California State University, San Bernardino

768F Mechanisms of Glyphosate-Based Herbicide Toxicity: Mortality, reproduction and behavior
Becky Talyn California State University, San Bernardino

769F How an RNA binding protein cascade controls the switch from cell proliferation to differentiation
Hannah Vicars Stanford University

770F Advantages of Combining Stage-Enriched Bulk and Single-Cell RNA-Seq to Improve Detection of Post-Meiotic Gene Expression in *Drosophila* Spermatogenesis
Maryanna Simao University of São Paulo

771F Sec23 and Sec24 form a heterodimer involved in COPII vesicle trafficking that is critical for *Drosophila* oogenesis
Ashleigh Hoskins University of Evansville

772F Altering Misshapen phosphorylation sites in the *Drosophila* egg chamber
Kathryn Alexander Butler University

773F Elucidating the roles of inorganic ions during egg activation in *Drosophila melanogaster*
Anyerys Diaz Cornell University

774F Fueling Fertility: Probing the Role of *INDY2* in *Drosophila* Testes Function
Mst Hasina Begum Texas Tech University

775F Functional unknowns through structure-informed homology detection in *Drosophila*
Kendall Green University of Texas at San Antonio

776F Genetic Interaction between Tao and Misshapen in the Germline
Molly Kubal Butler University

- 777F** Investigating the Role for RNA Binding Protein Staufen in rDNA Magnification **Caroline Casella** Stony Brook University
- 778F** Using CRIMIC tools to identify novel germline-enriched genes in *Drosophila* females **Sophia Spohn** East Carolina University
- 779F** Establishing the role of nuclear pore proteins in maintaining transcriptional quiescence in the early germline **Rodrigo Berber-Pulido** Princeton University
- 780F** Beyond metamorphosis: Characterizing the function of *crooked legs* in ovarian development **Victoria Garrido** East Carolina University
- 781F** Investigating the role of Maf-S in the *Drosophila* ovary **BiClaireline Cesar** East Carolina University
- 782F** JAK/STAT Signaling and Downstream Targets in Soma-Germline Communication During *Drosophila* Spermatid Individualization **Natalie Al-Shihabi** Stetson University
- 783F** Mapping the Synaptonemal Complex Proteome to Understand Meiotic Recombination Regulation **Clayton Parker** University of Georgia
- 784F** Differential regulation of cytokinetic proteins during midbody remodeling to form ring canals in *Drosophila* germ cells **Akanksha Pandey** Yale University
- 785F** Cadherin Dynamics in Ring Canal Stability During Oogenesis **Lawrence Pierce** Butler University
- 786F** EcR in ovarian germ cells promotes EGFR signaling in overlying somatic cells **Susannah Catherine Webster** East Carolina University
- 787F** Post-Mating Fly Cell Atlas (PM-FCA) Reveals Global Transcriptional Remodeling During Reproductive Processes in Both Sexes **Zhiyong Yin** Baylor College of Medicine
- 788S** Investigating Sperm Quality Control Mechanisms in *Drosophila melanogaster* **Sophia Bizink** University of Connecticut Health Center
- 789S** Interrogating the function of Vasa in *Drosophila* germ cell migration **Hannah Quick** Princeton University
- 790S** Detection of DNA damage in *Drosophila melanogaster* embryos lacking yolk proteins **Sophia Chuang** Cornell University
- 791S** Role of Groucho in *Drosophila* spermatogenesis **Mousumi Paul** Loyola University Chicago
- 792S** Discovering meiosis-mediating genes using RNA interference and cytological analysis **Daria Mitri** Rutgers University
- 793S** Characterization of the Mechanism of PhLP3 Function during Spermatogenesis **Juan Blas Arellano** Loyola University Chicago
- 794S** SPC105R's Structure and Function in Meiotic Kinetochores **Amira Lee** Rutgers University-New Brunswick
- 795S** Exploring B chromosome drag in *Drosophila melanogaster* males **Natalie Warsinger-Pepe** University of Connecticut
- 796S** Regulation of Spermatogenesis by the Transcription Factor Ribbon **Kashmala Ahmad** Loyola University Chicago
- 797S** Disentangling the thermal sensitivity across reproductive stages in *Drosophila* **Wayne Wang** University of Nebraska-Lincoln
- 798S** Investigating the reproductive role of male-derived yolk proteins in *Drosophila* **Lana Snow** Cornell University
- 799S** Characterization of Comover membraneless organelles in *Drosophila* spermatogenesis **Sandra Casani** Albert Einstein College of Medicine
- 800S** Does the *Drosophila* Y chromosome affect sex determination? **Qin Guo** Cornell University
- 801S** Determining how Ecdysone signaling influences sexual development **Meranda Wang** Johns Hopkins University
- 802S** Regulation of Spermatogenesis by Hindsight (Hnt) **Areeba Musharraf, Allyson Terrell, and Jennifer Jemc Mierisch** **Areeba Musharraf** Loyola University Chicago
- 803S** Evolution in action: How rapidly-evolving sex chromosome conflict may induce speciation **Meeysoon Quraishi** Memorial Sloan Kettering Cancer Center
- 804S** Examining the role of *Chigno* in epithelial expansion within the adult *Drosophila* testis stem cell niche **Gian Goboy** William & Mary
- 805S** Sperm combing enables proteomic analysis of sperm types in *Drosophila pseudoobscura* **April Talbot** Cardiff University
- 806S** Assessing the effects of DILP8 overexpression on *Drosophila* Female Reproduction **Danie-Claire Verna** University of Connecticut
- 807S** A dedicated endonuclease drives mitochondrial genome destruction in developing sperm **Mayu Shimomura** University of Toronto
- 808S** *bore da* and *prynhawn da*, a duplicate gene pair with diverging functions in spermatogenesis **Helen White-Cooper** Cardiff University
- Stem Cells, Regeneration, and Tissue Injury**
- 809T** Regulation of Yki by Rho Gap: filling in the GAPS of intestinal homeostasis **Connor Smith** Emory University
- 810T** Effect of chronic, unpredictable mild stress on intestinal stem cell homeostasis **Mariano Loza-Coll** California State University, Northridge

Poster Session Listings

- 811T** Characterizing non-linear effects of single vs. dual genetic manipulations in *Drosophila melanogaster* intestinal stem cells
Wiam Jurdi California State University, Northridge
- 812T** Investigating the role of SUMO precursor protein
Margaret de Cuevas Johns Hopkins School of Medicine
- 813T** Cell fate analysis by current and past enhancer expression during regeneration
Cigdem Sarikartal University of Virginia
- 814T** Detailing the functions of Cytokine/JAK/STAT signaling during *Drosophila* midgut regeneration
Xiaoyu Kang Huntsman Cancer Institute
- 815T** Investigation of genes with blastema-specific expression during regeneration
Celeste Fryling University of Virginia
- 816T** Matrix Metalloprotease 1 promotes cell fate change for epithelial-to-epithelial transition during regeneration after radiation damage in *Drosophila*
Michael Shiferaw University of Colorado Boulder
- 817T** A Novel lncRNA-Mediated Regulatory Axis of Lysine-Specific Demethylase 1 Controls Germline Stem Cell Differentiation during *Drosophila* Oogenesis
Ming-Chia Lee National Yang Ming Chiao Tung University
- 818T** Tissue-intrinsic signaling affects formation of the testis niche
Ariel Harrington East Carolina University
- 819T** *Lactobacillus brevis* that secretes ornithine can prophylactically promote regeneration processes in *Drosophila*
Gloria Bates California Institute of Technology
- 820T** An Xrp1-mediated damage response pathway is essential for gut regeneration
Peng Zhang Huntsman Cancer Institute
- 821F** Necrosis Induces DNA Damage to Drive Regenerative Proliferation
Jordan Hieronymus Arizona State University
- 822F** Cell Proliferation and Neurogenesis in the Injured Adult *Drosophila* Brain
Ayelet Blum UW-Madison
- 823F** Recognition of pathogenic bacteria by intestinal progenitors promotes adult *Drosophila* midgut regeneration via PGRP-MKK3-p38 signalling
Marie Srottyr University of Bristol
- 824F** Niche BMP signals control testis aging and GSC competition via Hairless, Imp, and Chinmo
Chen-Yuan Tseng Institute of Molecular Biology, National Chung Hsiang University
- 825F** Mechanistic insights into dedifferentiation in the *Drosophila* testis post-irradiation
Matthew Arnold Johns Hopkins University School of Medicine
- 826F** Context-Dependent Roles of Wnt6 Signaling in Regulating Hematopoietic Differentiation and Immune Response in *Drosophila*
Jewel Banik Stanford University
- 827F** Paraneoplastic renal dysfunction in fly cancer models driven by inflammatory activation of stem cells
Sze Hang Kwok The University of Hong Kong
- 828F** Uncovering the role of Wnt signaling pathway in regulating germline stem cell maintenance and progenitor cell differentiation in the *Drosophila* testis
Qiaolin Yang University of Melbourne
- 829F** Chondroitin sulfate regulates proliferation of *Drosophila* intestinal stem cells
Ayano Moriya University of Minnesota
- 830F** Age-dependent ectopic SREBP activation promotes niche-to-stem cell conversion and loss of male germline stem cell niche homeostasis
Will Sanders University of Louisville
- 831F** Non-canonical Wnt signaling reorients the mitotic spindle in adult stem cells to amplify the stem cell population
Clare Favela Loyola University Chicago
- 832F** Neural stem cell response to neuron loss in developing brain
Erik Miao University of Virginia
- 833S** Hormone Receptor 4 is Required in Adult Female Neurons to Regulate Germline Stem Cell Maintenance
Eleanor Goldstone Indiana University
- 834S** Sterile injury leads to expenditure and replenishment of crystal cells
Dominic Lanni University of Massachusetts Boston
- 835S** Investigating the Neuron-Glia Response to Injury in Embryonic *Drosophila* Central Nervous System
Lilly Stiles Widener University
- 836S** The *Drosophila* TET homolog is a key regulator of intestinal stem cell establishment
Niccole Auld Baylor College of Medicine
- 837S** Diet Regulates Muscle Stem Cell Pool and Muscle Growth in *Drosophila*
Lucia Lopez Ortega San José State University
- 838S** The role of Lipophorin Receptor 1 in regenerating *Drosophila* wing imaginal discs
Connor Powers University of Illinois
- 839S** How does a Follicle Stem Cell in the *Drosophila* ovary become a Follicle Cell?
Tia Peterson Columbia University
- 840S** Investigating function of CG11180/Chigno in somatic cyst stem cells using bulk RNA-sequencing
Daniel Allred College of William & Mary
- 841S** Lipin-mediated regulation of neural stem cell behavior
Jery Joy University of California, San Francisco
- 842S** Screening for Novel Genes in Regeneration
William Sun University of California, Berkeley
- 843S** Piezo-Mediated Basement Membrane Repair in the Adult Gut
Bryant Humphries Vanderbilt University

844S Identification of CG11180/Chigno interacting proteins functioning in the testis stem cell niche **Carolyn Payne William & Mary**

845S Investigating the mechanisms of dedifferentiation in the stem cell niche **Stella Dipippo** University of Connecticut Health Center

Techniques and Technology

846T Not just “winging it”: an updated practical guide to *Drosophila* husbandry and genetics **Lydia Grmai** Yale University

847T *Drosophila* to model nanoparticle-based drug delivery to the eye **Emily Brown** University of Massachusetts Boston

848T Genetic analyses enabled by the Fourth Chromosome Resource Project connect previously unstudied genes to mutant phenotypes **Bonnie Weasner** Indiana University

849T A Method to Discriminate Two *white* Alleles **Karen Hibbard** HHMI Janelia Research Campus

850T Targeted Enhancer Silencing and Sex Determination Disruption via RD-CRISPRi **Ankush Auradkar** University of California, San Diego

851T Large-scale *in-silico* discovery of protein-protein interactions in *Drosophila* **Justin Bosch** University of Utah

852F Screening split-GAL4 combinations for expression outside the nervous system **Stephanie Mauthner** Indiana University Bloomington

853F Genome wide elucidation of cis-regulatory elements and gene regulation in fly aging and pro-longevity **Bo Sun** Baylor College of Medicine

854F Genetically encoded voltage sensors for probing membrane potential **Sam Zheng** Indiana University

855F Exploiting sex-specific myosin genes to selectively eliminate flight in *Aedes aegypti* **Joseph Warren** Virginia Polytechnic Institute and State University

856F A single-cell transcriptomic atlas of *Drosophila* metamorphosis **Caelen Camplain** Iowa State University

857F Characterization of the light-dependent phosphoproteome in *Drosophila melanogaster* **Lucas Kramer** Purdue University

858S High-Resolution Automated *Drosophila* Geotaxis Analysis Elucidates Clinically Relevant Phenotypes of Genetic Neuropathies **Tijana Canic** University of Chicago

859S Developing a Novel Dual-driver Model to Facilitate Mechanistic Studies of Cancer Cachexia in *Drosophila melanogaster* **Benny Munyandi** Sam Houston State University

860S A Rapid Whole-Genome Pipeline for Lesion Identification in Chemically Mutagenized *Drosophila* **Nicole Sheffels** University of Wisconsin-Madison

861S DrOVi: An Interactive Web Platform for Synteny-Guided Orthology Exploration in *Drosophila* **Wei-Sheng Wu** National Cheng Kung University

862S *Drosophila* Genome Atlas (DGA): An Integrated Platform for Comparative Genomics and Functional Annotation of Non-model *Drosophila* Species **Yu-Kuang Chu** National Cheng Kung University

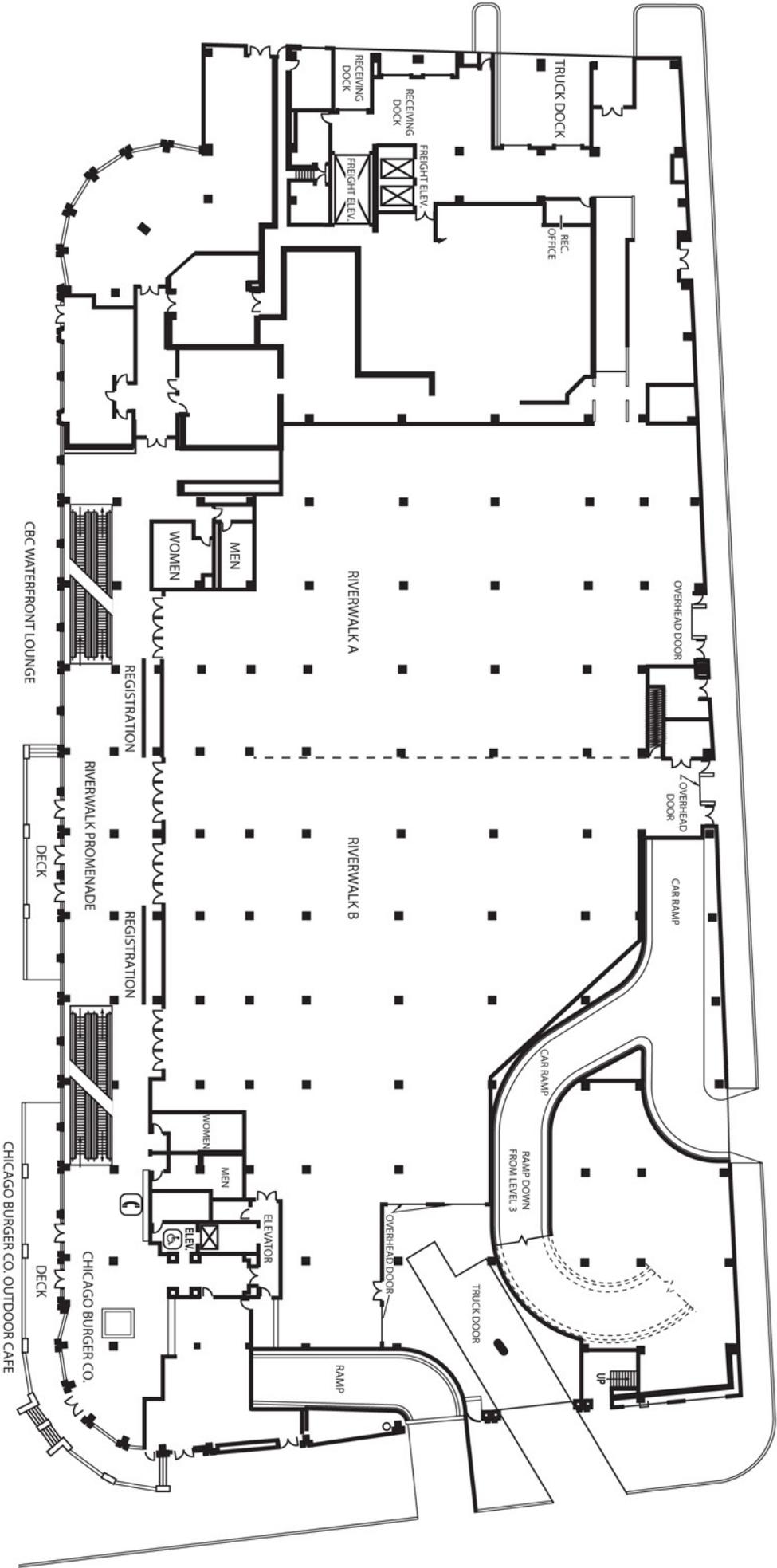
863S PolyORF: A plasmid cloning strategy for polycistronic expression of ORFs in *Drosophila* and beyond **Saya Barbera** University of Utah

864S Resources for *Drosophila* embryo cryopreservation at lab and stock center scale. **Kieran Smith** University of Minnesota

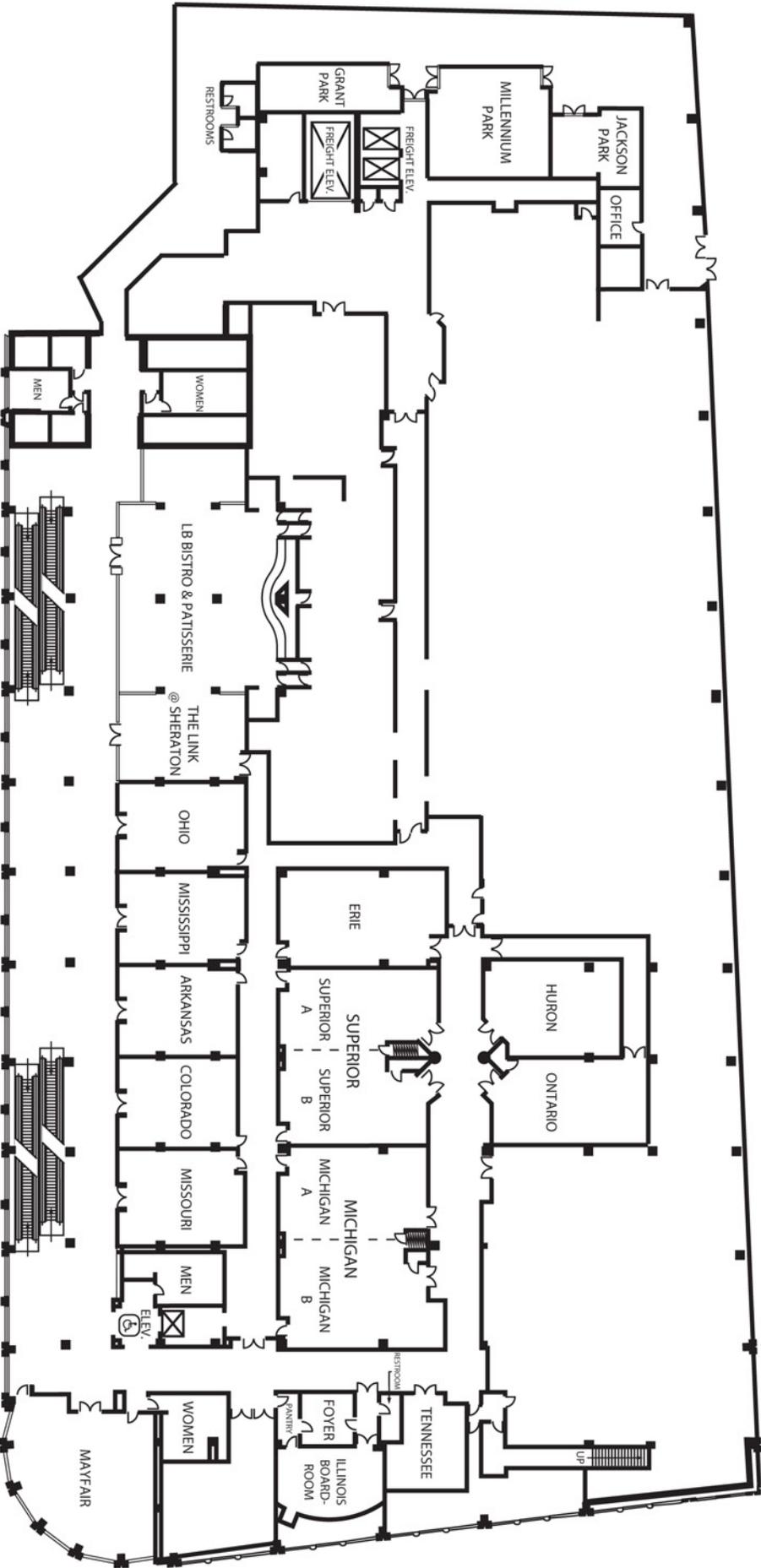
Poster and Exhibit Map



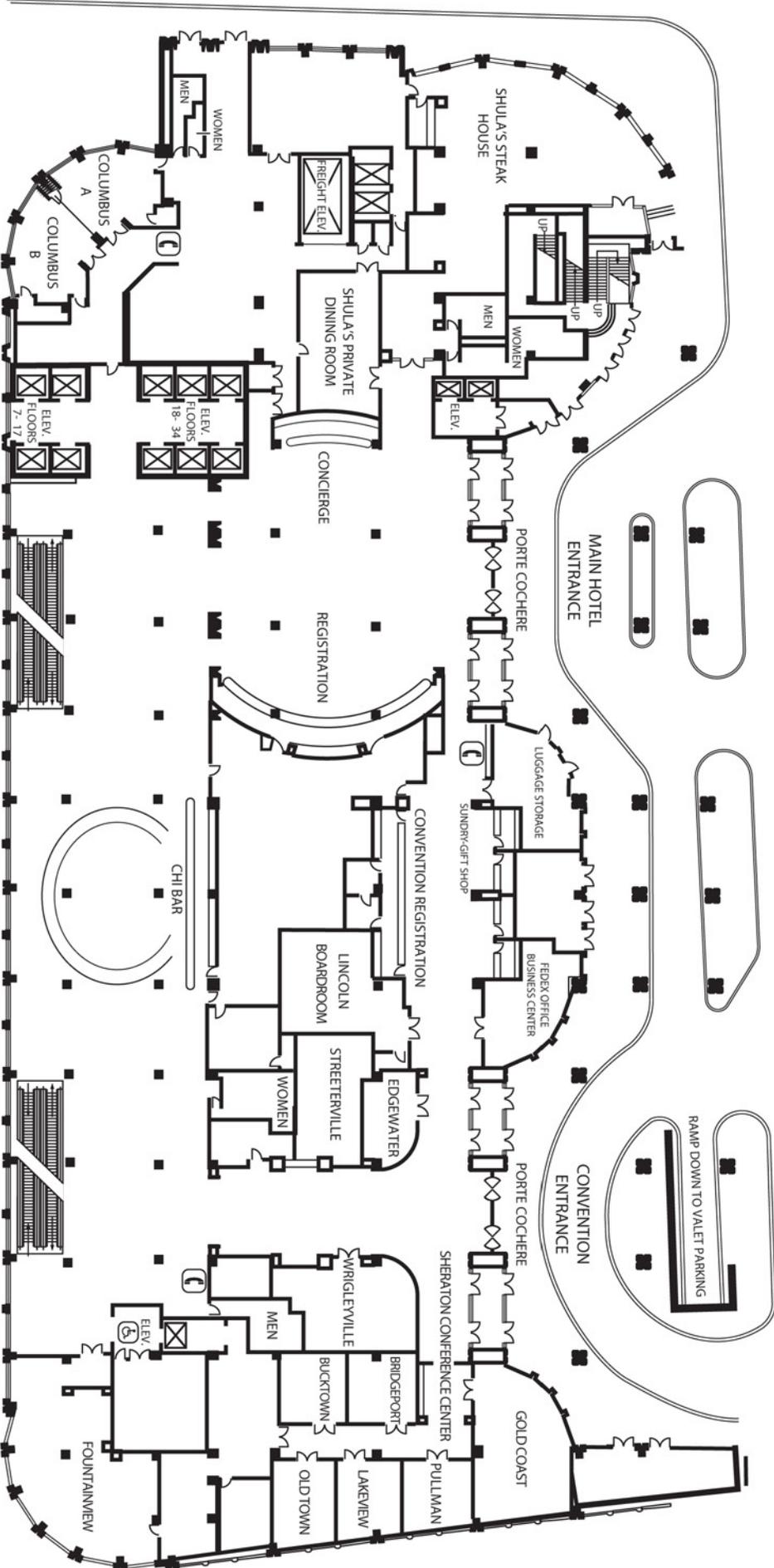
Riverwalk Level 1



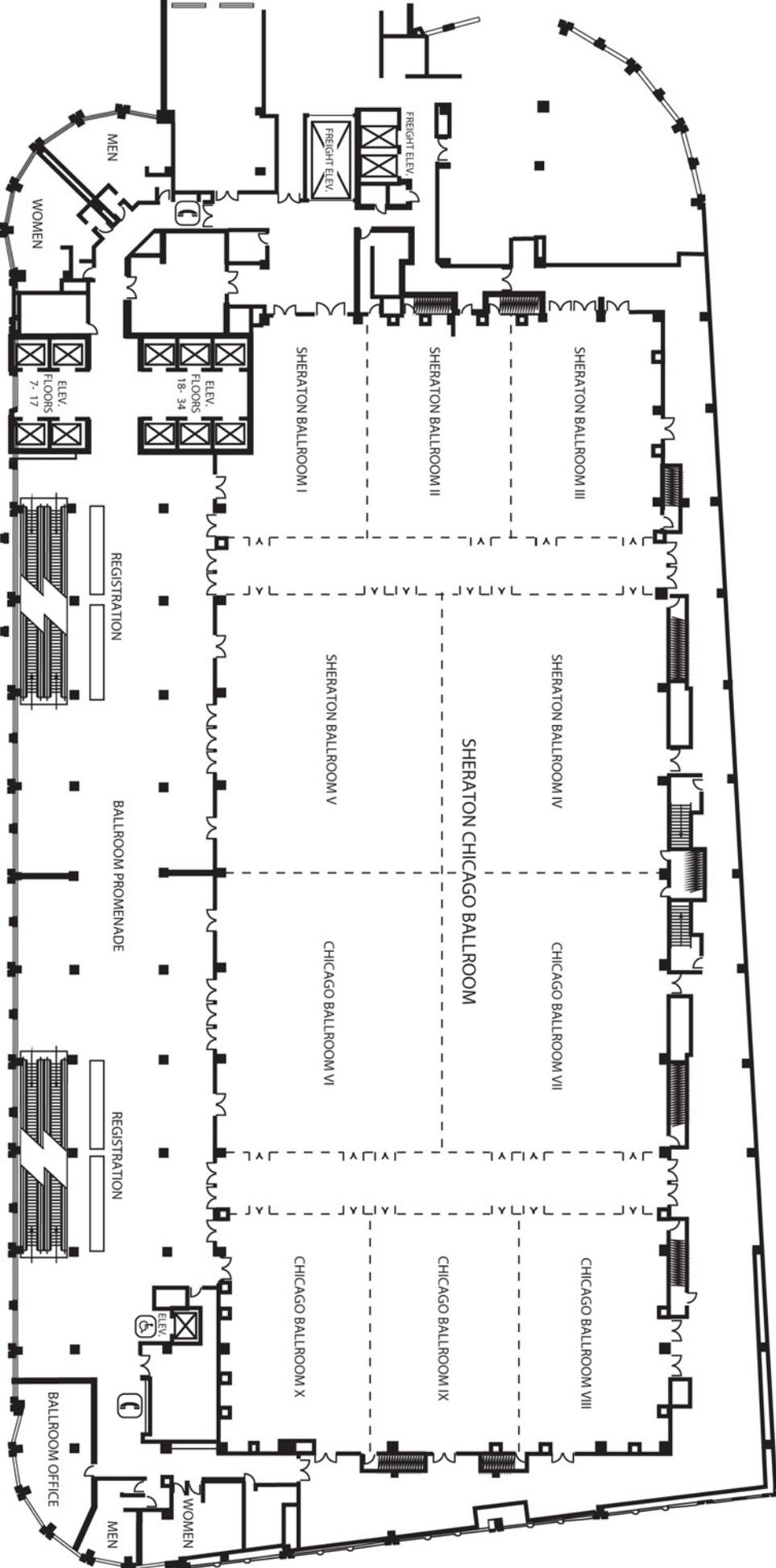
Meeting Room Level 2

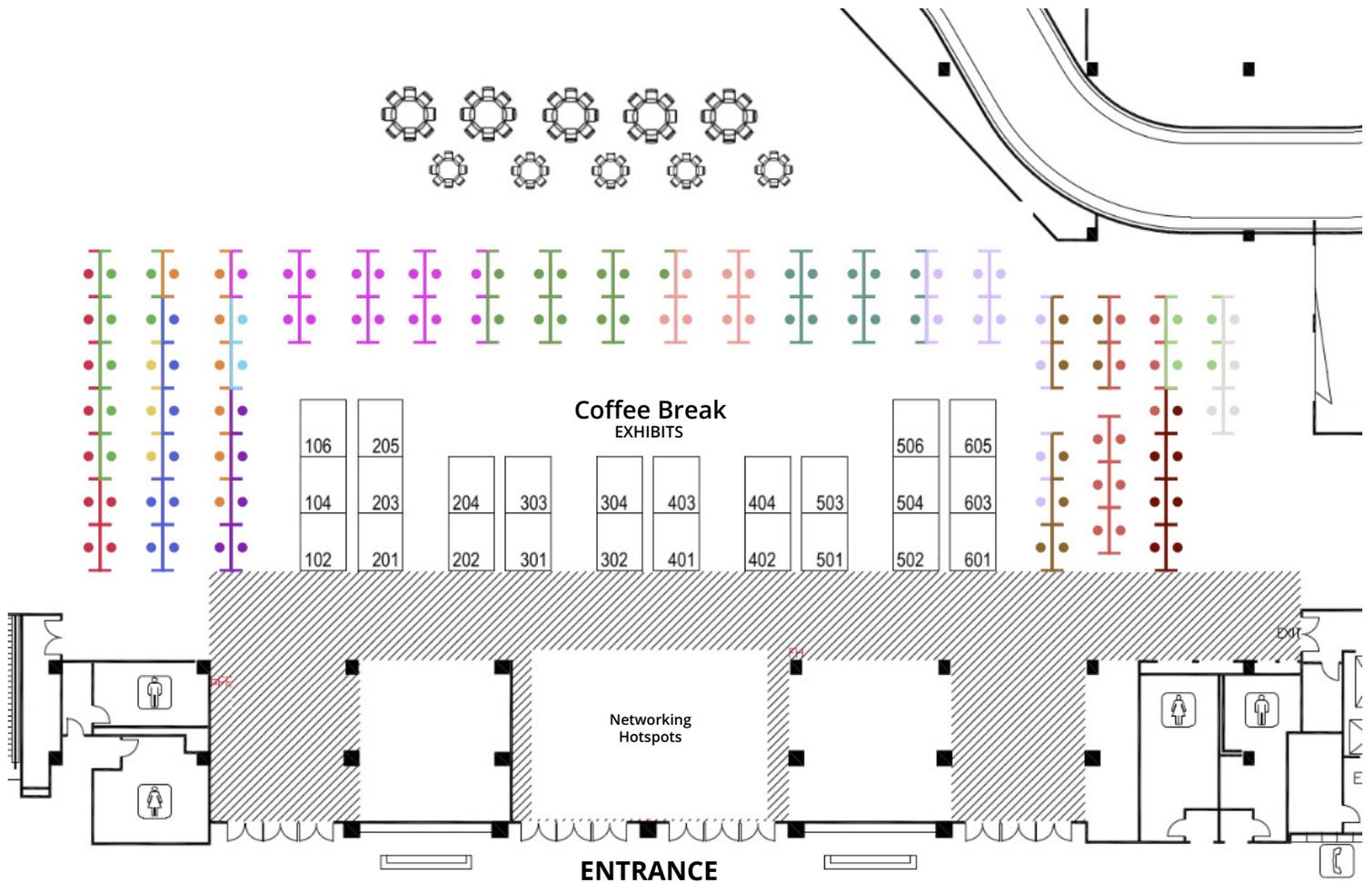


Lobby Level 3

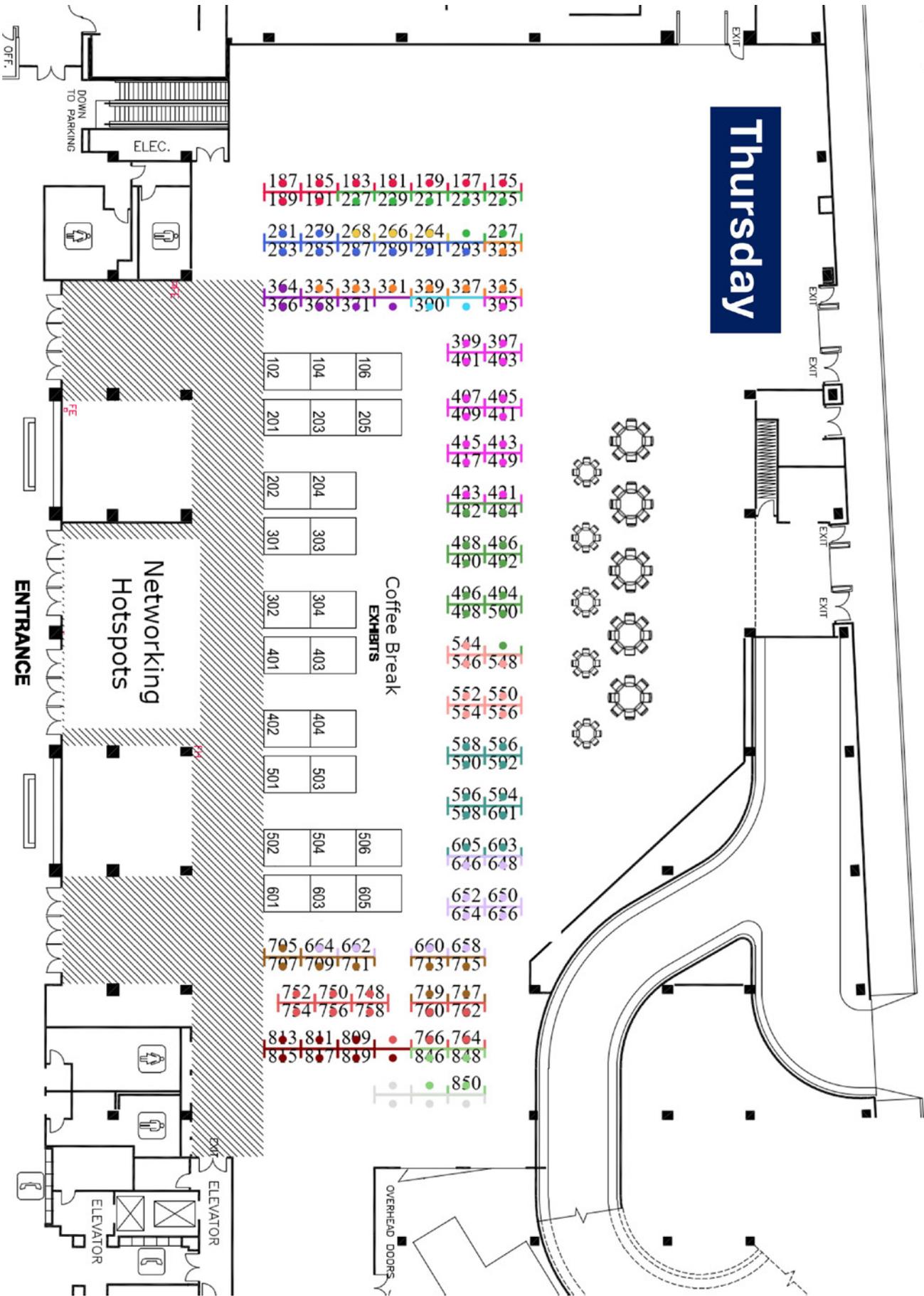


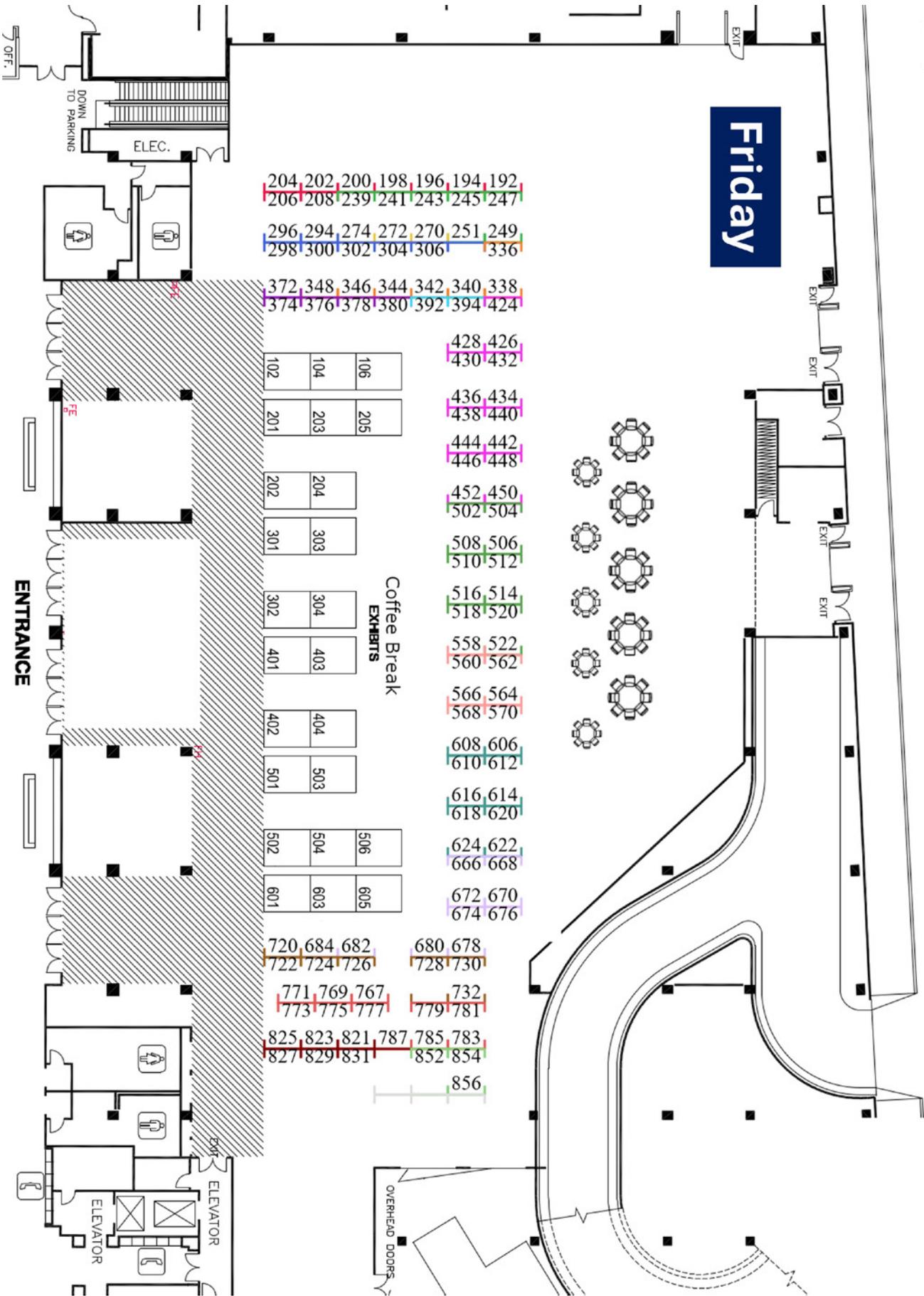
Ballroom Level 4





Archon Scientific	402	LabExpress	302
Bloomington Drosophila Stock Center	205	microPublication Biology.....	104
Darwin Chambers.....	403	miniPCR bio	201
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Genetics Society of America.....	601	Vienna Drosophila Resource Center.....	503
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Friday

204 202 200 198 196 194 192
206 208 239 241 243 245 247

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856

OVERHEAD DOORS

ENTRANCE

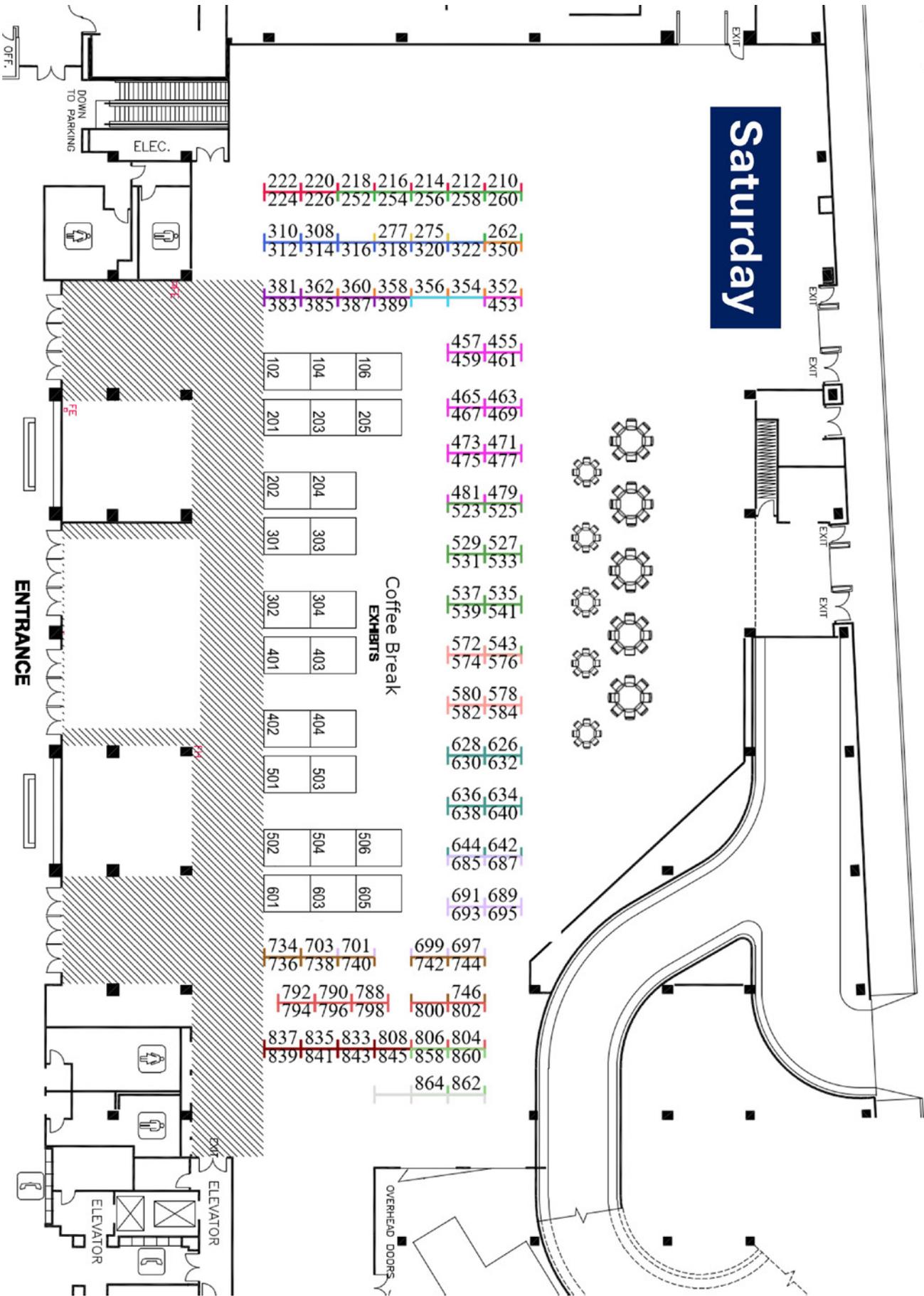
Coffee Break EXHIBITS

DOWN TO PARKING

ELEC.

ELEVATOR

ELEVATOR



Saturday

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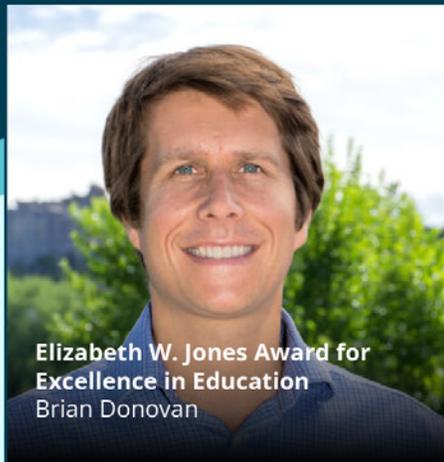
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862	864
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OVERHEAD DOORS

CONGRATULATIONS TO THE 2026 GSA AWARD RECIPIENTS!





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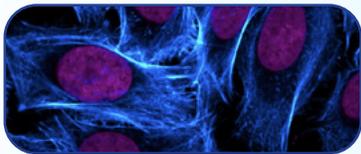
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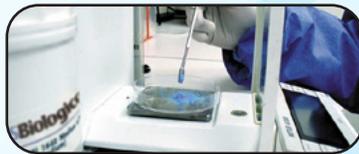
We look forward to continuing our partnership with GSA and their members.

Regards,

***Warren Shore
President
United States Biological***



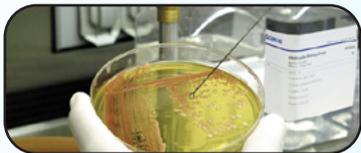
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68th Annual
Drosophila
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Marriott Philadelphia Downtown
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#Dros27



69th Annual
Drosophila
Research Conference



March 8–12, 2028
Town and Country Resort
San Diego, CA



GENETICS
G3

Schedule Of Events

Wednesday, March 4, 2026		
1:00 p.m.–2:00 p.m.	Conference Success Tips and Welcome	Erie, Level 2
1:00 p.m.–4:00 p.m.	Speaker Ready Room Open	Sheraton 1, Level 4
1:00 p.m.–4:00 p.m.	Drosophila Board Meeting (invitation only)	Michigan, Level 2
2:00 p.m.–4:00 p.m.	Ecdysone Workshop	Superior, Level 2
2:00 p.m.–2:30 p.m.	Getting Involved in GSA's Early Career Professional Development Programs	Erie, Level 2
3:00 p.m.–9:00 p.m.	Registration Open	Sheraton Chicago Ballroom Foyer, Level 4
3:00 p.m.–4:00 p.m.	Individual Development Plan (IDP) Workshop	Erie, Level 2
7:00 p.m.–9:00 p.m.	Opening General Session	Sheraton Chicago Ballroom, Level 4
9:00 p.m.–10:00 p.m.	Opening Mixer with Exhibitors	Riverwalk, Level 1
Thursday, March 5, 2026		
7:00 a.m.–11:00 p.m.	T Posters Open	Riverwalk, Level 1
7:00 a.m.–4:00 p.m.	Speaker Ready Room Open	Sheraton 1, Level 4
7:30 a.m.–5:00 p.m.	Registration Open	Sheraton Chicago Ballroom Foyer, Level 4
8:30 a.m.–12:45 p.m.	Plenary Session	Sheraton Chicago Ballroom, Level 4
12:15 p.m.–4:15 p.m.	Exhibits Open	Riverwalk, Level 1
12:30 p.m.–1:30 p.m.	Conference Mentor Program Lunch	Michigan, Level 2
1:00 p.m.–2:00 p.m.	Networking Hotspots	Riverwalk, Level 1
2:00 p.m.–4:00 p.m.	T Poster Presentations and Exhibit Viewing	Riverwalk, Level 1
4:30 p.m.–6:30 p.m.	Concurrent Platform Sessions	Sheraton Chicago Ballroom, Level 4
8:00 p.m.–10:00 p.m.	Concurrent Workshops	Various Locations, Level 2
8:00 p.m.–9:00 p.m.	Networking Hotspots	Riverwalk, Level 1
Friday, March 6, 2026		
7:00 a.m.–11:00 p.m.	F Posters Open	Riverwalk, Level 1
7:00 a.m.–4:00 p.m.	Speaker Ready Room Open	Sheraton 1, Level 4
7:30 a.m.–5:00 p.m.	Registration Open	Sheraton Chicago Ballroom Foyer, Level 4
8:30 a.m.–12:30 p.m.	Concurrent Platform Sessions	Sheraton Chicago Ballroom, Level 4
12:30 p.m.–1:30 p.m.	GSA Journals Editorial Board Meeting	Mayfair, Level 2
12:15 p.m.–4:15 p.m.	Exhibits Open	Riverwalk, Level 1
2:00 p.m.–4:00 p.m.	F Poster Presentations and Exhibit Viewing	Riverwalk, Level 1
4:30 p.m.–6:30 p.m.	Concurrent Platform Sessions	Sheraton Chicago Ballroom, Level 4
8:00 p.m.–10:00 p.m.	Concurrent Workshops	Various Locations, Level 2
Saturday, March 7, 2026		
7:00 a.m.–4:00 p.m.	Speaker Ready Room Open	Sheraton 1, Level 4
7:00 a.m.–3:30 p.m.	S Posters Open	Riverwalk, Level 1
8:00 a.m.–1:00 p.m.	Registration Open	Sheraton Chicago Ballroom Foyer, Level 4
8:00 a.m.–12:00 p.m.	Concurrent Platform Sessions	Sheraton Chicago Ballroom, Level 4
12:00 p.m.–3:30 p.m.	Exhibits Open	Riverwalk, Level 1
1:30 p.m.–3:30 p.m.	S Poster Presentations and Exhibit Viewing	Riverwalk, Level 1
4:00 p.m.–6:00 p.m.	Concurrent Platform Sessions	Sheraton Chicago Ballroom, Level 4
7:30 p.m.–9:30 p.m.	Techniques and Technology Session	Sheraton Chicago Ballroom, Level 4
Sunday, March 8, 2026		
8:30 a.m.–10:30 a.m.	Closing Plenary	Sheraton Chicago Ballroom, Level 4