66th Annual *Drosophila* Research Conference

March 19–23, 2025 | Town and Country Resort | San Diego, CA

Program Book

GSA GENETICS G3

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Genetics Society of America

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

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.

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

Officers

Name	Office	Year
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Jessica Treisman	Treasurer	2026

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Name	Region	Year
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Laurel Raftery	Mountain	2026
Don Fox	Southeast	2027
Blake Riggs	California	2025
Jocelyn MacDonald	Heartland	2027
Barbara Mellone	New England	2026
Hakeem Lawal	Mid-Atlantic	2025
Daniela Drummond-Barbosa	Midwest	2027

Primarily Undergraduate Institution Representative

Name	Year
Ruth Johnson	2026

International Representatives

Name	Office	Year
Louise Cheng	Australia/Oceania	2026
Mousumi Mutsuddi	Asia	2025
Daria Siekhaus	Europe	2025
John Ewer	Latin America	2025

Postdoc and Student Representatives

Name	Role	Year	Institution
Shyama Nandakumar	Postdoc Representative	2026	University of Pittsburgh
Shefali Shefali	Student Representative	2026	Indiana University

Conference Organizers

Michelle Bland, University of Virginia *(Co-chair)*

Todd Nystul, University of California, San Francisco *(Co-chair)*

Amanda Crocker, Middlebury College

Justin Crocker, European Molecular Biology Laboratory

Leila Rieder, Emory University

Session Chairs

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Max Frolov

Juliet Girard

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Jacob Jaszczak

Ruth Johnson

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Natalie Ortiz-Vega

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Aleena Patel

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Sponsors

Conference Sponsors

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Premier Sponsors

G3 Genes | Genomes | Genetics

GENETICS

USBiological Life Sciences

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Disease Models & Mechanisms

Development

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.

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 Town and Country Ballroom Foyer during the following hours:

Wednesday, March 19	3:00 p.m.–9:00 p.m.
Thursday, March 20	7:30 a.m.–5:00 p.m.
Friday, March 21	7:30 a.m.–5:00 p.m.
Saturday, March 22	7:45 a.m.–3:00 p.m.

For admission to all sessions, posters, the Exhibit Hall (Golden State Ballroom), 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, you can pick it up at the GSA Registration Desk beginning Thursday, March 20 during registration hours. A limited quantity will be available for purchase at this location.

Oral Presenters: Speaker Ready Room (Sunset 3)

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. Presentations cannot be uploaded in the meeting room; you must check in at the Speaker Ready Room. Workshop speakers should coordinate directly with their workshop organizers and should not upload their talks in the Speaker Ready Room. The room is located in Sunset 3 and will be open during the following hours:

Wednesday, March 19	1:00 p.m.–5:00 p.m.
Thursday, March 20	7:00 a.m.–4:00 p.m.
Friday, March 21	7:00 a.m.–4:00 p.m.
Saturday, March 22	7:00 a.m.–4:00 p.m.

Poster Presenters

All posters and exhibits will be in the Exhibit Hall. The Hall will be open between the hours of 12:00 p.m. and 11:00 p.m., Thursday and Friday, and from 12:00 p.m. to 3:30 p.m. on Saturday for poster viewing. See schedule below for times when authors will be presenting their poster. All posters will be displayed throughout the conference. Security will be posted at the entrance to the Exhibit Hall, and only individuals with a badge will be admitted.

Poster Presentation Schedule

Thursday, March 20	2:00 p.m.–3:00 p.m. 3:00 p.m.–4:00 p.m.	Even numbered “T” posters Odd numbered “T” posters
Friday, March 21	2:00 p.m.–3:00 p.m. 3:00 p.m.–4:00 p.m.	Even numbered “F” posters Odd numbered “F” posters
Saturday, March 22	1:30 p.m.–2:30 p.m. 2:30 p.m.–3:30 p.m	Odd numbered “S” posters Even numbered “S” posters

All posters must be removed from poster boards by 3:30 p.m. on Saturday, March 22. 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 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. The table below shows Exhibit Hall hours.

Wednesday, March 19	9:00 p.m.–10:30 p.m. Opening Mixer
Thursday, March 20	12:30 p.m.–4:15 p.m. Exhibits Open 2:00 p.m.–4:00 p.m. Poster Presentations
Friday, March 21	12:30 p.m.–4:15 p.m. Exhibits Open 2:00 p.m.–4:00 p.m. Poster Presentations
Saturday, March 22	12:30 p.m.–3:30 p.m. Exhibits Open 1:30 p.m.–3:30 p.m. Poster Presentations

GSA Central (Booth 209)

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.

Internet Access

Conference attendees will have access to free Wifi.

Network: Genetics Society of America
Password: #DROS25Fly (case sensitive)

Quiet Room (Palm 6)

This room is for those who would like to take a break, pray, meditate or are just looking for some quiet space to recharge. The room will be open to all conference attendees from 7:30 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 Town and Country Resort Security by dialing 0 from any house phone. You can also request assistance at the conference Registration Desk.

Meals

Coffee and snacks will be available Thursday through Sunday during the morning break. Be sure to grab dinner before the Opening Session on Wednesday, which will offer light snacks.

On property dining

The Town and Country Resort offers a wide variety of dining options from quick and casual to a more relaxing dining experience. Hours will vary. For more information and to check on operating hours, click here.

ARLO: This award-winning restaurant serves scratch-made dishes using fresh local ingredients and flavors from around the globe.

Lappers Sports Bar + Kitchen: This casual spot serves SoCal comfort food like Surf and Turf Nachos, fish tacos, and burgers, plus a rotating tap of local beers.

Lap It Up: Enjoy quick bites and local draft beers or cool and refreshing drinks, while lounging poolside.

MRKT: Grab a bite on-the-go, from coffee and pastries, to wood-fired pizzas, salads, and sandwiches. Eat delicious food without missing a beat!

Monkey Bar: Enjoy the San Diego weather—sit by a fire pit at the Monkey Bar and enjoy shareable plates, sips, and on some nights, live music.

Conference attendees can also take advantage of grab-n-go options on the Flamingo Lawn during breakfast and lunchtime, Thursday through Saturday. Don't forget you have complimentary coffee in your room.

Off property dining and shopping

San Diego has a wide variety of dining options and the hotel front desk can give you a list of recommendations from casual to elegant. Some are within walking distance of the hotel. Would you rather stock your room with snacks? Take the free transportation (based on availability) to the nearest grocery store.

Did you forget something? No problem. The Fashion Valley Mall is directly behind the resort via a walkway. Find a list of stores and restaurants online.

Parking

Discounted self-parking ($15 per day) is available for conference attendees. If you are staying at the hotel, please notify the front desk that you have a car when you check in. Guests of the hotel will have in-and-out privileges, meaning you can leave and return to the parking garage as much as you like. If you are attending the meeting but not staying at the hotel, the discounted rate is only valid for one exit from the parking garage. So if you leave and come back on the same day, you will have to pay an additional fee. See the hotel front desk for more information.

Resort fee/daily service charge

Although this fee has been waived for conference attendees, you will still have access to the following amenities:

- Guest room Wi-Fi
- Unlimited Access to the Fitness Center
- Guest room local call (619 and 858 area codes) and 1-800 calls
- Coffee, tea, and decaf coffee in your guest room

Family Resources

Dros 2025 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 Town and Country 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.

Lactation Room

A lactation room will be available near Town and Country Ballroom D of the Town and Country Resort. Please look for the parent/child icon on the map in the Conferences App.

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
josephdaniels@archonscientific.com
archonscientific.com
Booth #107

Fly Food ready when you need it. For over 12 years 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 EasyTm.

Darwin Chambers
sales@darwinchambers.com
darwinchambers.com
Booth #305

Darwin Chambers Company has been manufacturing, designing, and installing controlled environmental chambers for more than two decades. Serving the entire United States and across the globe, we provide industry-leading stock and custom environmental chambers that offer precise control of temperature, humidity, and lighting with highly energy efficient components for a wide variety of applications.

Bloomington Drosophila Stock Center
flystock@iu.edu
bdsc.indiana.edu
Booth #214

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 (https://bdsc.indiana.edu). Please come by! BDSC staff will be on hand to answer questions and take suggestions.

Drobot Biotechnology Limited Company
service@drobot.com.tw
drobot.com.tw
Booth #105

DroBot provides personal stocks center, automatic devices, and scientific services. Taking “flies are the vital assets of the lab” as our core value, we try our best to perfect the experiment process, including fly-keeping and large-scale experiments for survival. DroBot keeps upgrading the AI fly-conserving system to give intact services for biotechnology research.

DrosoKING, a Biologix Group Company
customercare@biologixusa.com
drosoking.com
Booth #315, #317

DrosoKING, a Biologix Group Company, provides premium products tailored for *Drosophila* research. All our offerings proudly hold ISO and CE certifications for quality and compliance. With the emphasis on safety, innovation, and efficiency, we welcome you to unleash the full spectrum of *Drosophila* experimentation through our diverse, quality-assured products.

Electron Microscopy Sciences
info@emsdiasum.com
emsdiasum.com
Booth #306

EMS offers high-quality lab supplies and equipment for microscopy, histology, and research, along with expertly manufactured lab chemicals. With competitive pricing, fast delivery, and expert support, we're dedicated to helping your lab succeed and advancing research worldwide.

Drosophila Genomics Research Center
dgrc@iu.edu
dgrc.bio.indiana.edu
Booth #208

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
embody-biosignals.com
Booth #309

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 recording *Drosophila* activity, to AutoEPG that automatically analyses electropharyngeal recordings in *C. elegans* – we can extract multidimensional markers of behaviour from your data.

FlyBase
russo@morgan.harvard.edu
flybase.org
Booth #304

FlyBase will have a booth located in the Exhibit Hall. Be sure to stop by and learn about new features! FlyBase personnel are available for discussions and demonstrations, and welcome your suggestions.

Genesee Scientific
support@geneseesci.com
geneseesci.com
Booth #204

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* partner and are committed to fueling your discoveries!

FlyTabs
flytabs@yahoo.com
flytabsci.com
Booth #205

FlyTabs is excited to present the latest innovations for *Drosophila* vial and bottle food filling. The DrosoStrainer – is a fast, great food clump filter for more accurate filling with far less effort!! The Strainer and Meshes are designed for quick easy fit/removal on your existing DrosoFiller!! The all-stainless steel design cleans fast and will last for many years!!

Hybrigenics Services
bpasser@hybrigenics.com
hybrigenics-services.com
Booth #217

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 600 customer publications, we're a trusted partner for high-quality, reliable results.

LabExpress
sheila@lab-express.com
lab-express.com
Booth #206

We have been serving the research community for over fifteen years. Turn to us for: Weekly-made fly food, Juice plates; Supplies to make fly food yourself including polystyrene vials, polypropylene bottles, cardboard trays and dividers, dry ingredients, mixes. We will work with you closely to meet your specific needs.

Genetics Society of America
ruth.isaacson@thegsajournals.org
genetics-gsa.org
Booth #209

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.

microPublication Biology
contact@micropublication.org
microPublication.org
Booth #216

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
objectivebiotechnology.com
Booth #117

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. Our technologies include a robotic system that automates embryonic microinjection for flies, fish, and other organisms, as well as neurotechnology tools for rodent models.

Percival Scientific
jcampidilli@percival-scientific.com
percival-scientific.com
Booth #207

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.

Parter Medical Products
hormoz@partermedical.com
partermedical.com
Booth #308

Parter Medical Products (Parter), based in Southern California since 1984, is a preeminent manufacturer of single-use plastic laboratory products and a provider of contract sterilization services using Ethylene Oxide and Electron Beam technologies. Parter is the sole Made-in-USA manufacturer of *Drosophila* Vials and Bottles.

Qidong Fungene Biotechnology
fanjinhua@fungene.tech
fungene.tech
Booth #314

Fungene specializes in CRISPR-based genome editing services, with a focus on creating transgenic *Drosophila* models for diverse biological research areas. Our customized gene editing solutions empower advancements in genetics, developmental biology, disease modeling, and beyond, supporting scientists in driving innovation and discovery.

Sable Systems International
csuedbeck@sablesys.com
sablesys.com
Booth #316

Sable Systems is the worldwide leader in behavioral and metabolic measurement systems. No matter your research model — from tiny *Drosophila* to rodent to human — we have the phenotyping system to synchronously capture energy expenditure, MR, and RQ, with high resolution behavioral details. All Sable products are designed by scientists, for scientists.

Scikal Research
info@scikal.com
scikal.com
Booth #307

Scikal offers tailored services to help you generate high-quality data. We specialize in instrumentation design-and-fabrication of automated *Drosophila* behavioral systems and establishing optimized imaging and AI-driven image/data analysis pipelines. Additionally, we assist with onsite standardization of behavioral systems. Our in-house services include large-scale drug/genetic behavioral screens, *Drosophila* maintenance and data analytics.

WellGenetics
info@wellgenetics.com
wellgenetics.com
Booth #109

WellGenetics is dedicated to providing professional research services in microinjection and gene knockout/knockin in flies. 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@vdrc.at
vdrc.at
Booth #215

The Vienna Drosophila Resource Center (www.vdrc.at) is a non-profit bioresource promoting scientific discoveries in *Drosophila*. We maintain over 30,000 transgenic fly stocks and distribute to the *Drosophila* research community worldwide. Additional services include private stock keeping, fly extract and fly food. Drop by to ask any questions and give feedback.

Zantiks Ltd
info@zantiks.com
zantiks.com
Booth #115

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 & odour delivery. The compact units run standardised behavioural assays; locomotor, climbing, circadian rhythm, sleep studies, toxicology screening, startle, habituation, & 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 Chair E. Jane Hubbard at jane.hubbard@nyulangone.org. GSA staff is available to assist participants in making a report. Please email GSA Executive Director Tracey DePellegrin at tracey.depellegrin@genetics-gsa.org.

Consequences of non-compliance

Anyone asked by GSA staff, an 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 Conferences 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. Closed captioning monitors will be available at the front of each of the oral presentation rooms.

Social Media/Photo/Video Policy

Live posting of presentations on any social media platform 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.

Schedule of Events

All times are listed in Pacific Daylight Time (PDT)

Friday, March 14, 2025		
10:00 a.m.–11:00 a.m.	**Career Exploration Panel (online)**	Online
1:00 p.m.–2:30 p.m.	**Careers in Academia (online)**	Online
Wednesday, March 19, 2025		
1:00 p.m.–4:00 p.m.	**Fly Board Meeting (invitation only)**	Palm 1-3
1:00 p.m.–5:00 p.m.	**Speaker Ready Room** *(plenary and platform speakers must check in 24 hours in advance of their session)*	Sunset 3
1:00 p.m.–2:00 p.m.	**Conference Success Tips and Welcome from the Early Career Leadership Program**	Pacific E
2:00 p.m.–4:00 p.m.	**Ecdysone Workshop**	Pacific D
2:30 p.m.–3:00 p.m.	**Getting Involved in GSA's Early Career Professional Development**	Pacific E
3:00 p.m.–9:00 p.m.	**Registration/Information Desk**	Town and Country Foyer
3:00 p.m.–4:00 p.m.	**Come Fly with Me: Community, Connections, and Mentorship**	Pacific A
3:00 p.m.–4:00 p.m.	**Undergraduate Student Meet-up**	Pacific A
3:00 p.m.–4:00 p.m.	**Graduate Student Meet-up**	Pacific A
3:00 p.m.–4:00 p.m.	**Faculty Meet-up**	Pacific A
3:00 p.m.–4:00 p.m.	**Postdoc Meet-up**	Pacific A
4:00 p.m.–5:00 p.m.	**Individual Development Plan (IDP) Workshop**	Pacific E
6:45 p.m.–9:00 p.m.	**Opening General Session**	Town and Country Ballroom A/B
9:00 p.m.–10:30 p.m.	**Opening Mixer with Exhibitors**	Golden State Ballroom
Thursday, March 20, 2025		
7:00 a.m.–4:00 p.m.	**Speaker Ready Room** *(plenary and platform speakers must check in 24 hours in advance of their session)*	Sunset 3

All times are listed in Pacific Daylight Time (PDT)

Thursday, March 20, 2025 (continued)

7:30 a.m.–5:00 p.m.	**Registration/Information Desk**	Town and Country Foyer
8:30 a.m.–10:17 a.m.	**Plenary Session I**	Town and Country Ballroom A/B
10:45 a.m.–12:45 p.m.	**Plenary Session II**	Town and Country Ballroom A/B
12:00 p.m.–11:00 p.m.	**Poster Viewing**	Golden State Ballroom
12:45 p.m.–4:15 p.m.	**Exhibits Open**	Golden State Ballroom
12:55 p.m.–1:55 p.m.	**Come Fly with Me: Community, Connections, and Mentorship**	Pacific A
1:00 p.m.–2:00 p.m.	**Networking Hotspots**	Golden State Ballroom
2:00 p.m.–4:00 p.m.	**T Poster Presentations and Exhibits (2-3 Even, 3-4 Odd) and Exhibits**	Golden State Ballroom
2:00 p.m.–4:00 p.m.	**Photographer Headshots**	Golden State Ballroom
4:30 p.m.–6:30 p.m.	**Concurrent Platforms I**	
	Cell Division and Cell Growth	Town and Country Ballroom A/B
	Immunity and the Microbiome	Town and Country C
	Neural Circuits and Behavior	Town and Country D
6:45 p.m.–7:45 p.m.	**GSA Journals Social**	Monkey Bar
8:00 p.m.–9:00 p.m.	**Networking Hotspots**	Golden State Ballroom

All times are listed in Pacific Daylight Time (PDT)

Thursday, March 20, 2025 (continued)

8:00 p.m.–10:00 p.m.	**Concurrent Workshops**	
	Developmental Mechanics	Pacific A
	Go Big or Go Home: Polyploidy on the Fly	Pacific C
	Everything You Wanted to Know About Sex	Pacific E
	Undergraduate Spotlight and Graduate School Guidance	Town and Country C

Friday, March 21, 2025

7:00 a.m.–4:00 p.m.	**Speaker Ready Room** *(plenary and platform speakers must check in 24 hours in advance of their session)*	Sunset 3
7:30 a.m.–5:00 p.m.	**Registration/Information Desk**	Town and Country Foyer
8:30 a.m.–10:00 a.m.	**Concurrent Platforms II**	
	Cell Biology: Cytoskeleton, Organelles, and Trafficking I	Town and Country Ballroom A/B
	Chromatin, Epigenetics, and Genomics	Town and Country C
	Initiatives in Education and DEI	Town and Country D
10:30 a.m.–12:30 p.m.	**Concurrent Platforms III**	
	Cell Biology: Cytoskeleton, Organelles, and Trafficking I	Town and Country Ballroom A/B
	Evolution I	Town and Country C
	Physiology, Metabolism, and Aging I	Town and Country D
12:00 p.m.–11:00 p.m.	**Poster Viewing**	Golden State Ballroom

All times are listed in Pacific Daylight Time (PDT)

Friday, March 21, 2025 (continued)

12:45 p.m.–4:15 p.m.	**Exhibits Open**	Golden State Ballroom
12:45 p.m.–1:45 p.m.	**Peer into Publishing Q&A**	Palm 1-3
1:00 p.m.–2:00 p.m.	**Networking Hotspots**	Golden State Ballroom
2:00 p.m.–4:00 p.m.	**F Poster Presentations and Exhibits (2-3 Even, 3-4 Odd)**	Golden State Ballroom
2:00 p.m.–3:30 p.m.	**Photographer Headshots**	Golden State Ballroom
4:30 p.m.–6:30 p.m.	**Concurrent Platforms IV**	
	Evolution II	Town and Country C
	Physiology, Metabolism, and Aging II	Town and Country D
	Models of Human Disease I	Town and Country Ballroom A/B
8:00 p.m.–9:00 p.m.	**Networking Hotspots**	Golden State Ballroom
8:00 p.m.–10:00 p.m.	**Concurrent Workshops**	
	Single-cell Research in *Drosophila*: Technologies and resources	Pacific A
	Emerging Topics in Inter-Organ Communication	Pacific C
	How to Integrate the History of Racism and Bias in STEM in the Classroom	Pacific D
	Perspectives on Flies for Opportunities and Advances in Toxicological Science	Pacific E

Saturday, March 22, 2025

7:00 a.m.–4:00 p.m.	**Speaker Ready Room** *(plenary and platform speakers must check in 24 hours in advance of their session)*	Sunset 3

All times are listed in Pacific Daylight Time (PDT)

Saturday, March 22, 2025 (continued)

7:30 a.m.–2:00 p.m.	**Registration/Information Desk**	Town and Country Foyer
8:00 a.m.–10:00 a.m.	**Concurrent Platforms V**	
	Neural Development and Physiology	Town and Country Ballroom A/B
	Reproduction and Gametogenesis	Town and Country C
	Regulation of Gene Expression	Town and Country D
10:30 a.m.–12:00 p.m.	**Concurrent Platforms VI**	
	Patterning, Morphogenesis, and Organogenesis I	Town and Country Ballroom A/B
	Cell Stress and Cell Death	Town and Country C
	Signal Transduction	Town and Country D
12:00 p.m.–3:30 p.m.	**Poster Viewing**	Golden State Ballroom
12:00 p.m.–3:45 p.m.	**Exhibits Open**	Golden State Ballroom
12:30 p.m.–1:30 p.m.	**Networking Hotspots**	Golden State Ballroom
1:30 p.m.–3:30 p.m.	**S Poster Presentations and Exhibits (1:30-2:30 odd, 2:30-3:30 Even)**	Golden State Ballroom

Saturday, March 22, 2025 (continued)		
4:00 p.m.–6:00 p.m.	**Concurrent Platforms VII**	
	Patterning, Morphogenesis, and Organogenesis II	Town and Country Ballroom A/B
	Models of Human Disease II	Town and Country C
	Stem Cells, Regeneration, and Tissue Injury	Town and Country D
7:30 p.m.–8:00 p.m.	**Come Fly with Me: Community, Connections, and Mentorship Mentee Meet-up**	Pacific E
8:30 p.m.–10:00 p.m.	**Techniques and Technology Session**	Town and Country Ballroom A/B
Sunday, March 23, 2025		
8:30 a.m.–11:40 a.m.	**Closing Plenary**	Town and Country Ballroom A/B

Oral Presentation and Workshop Session Listings

Friday, March 14, 2025

10:00 a.m.–11:00 a.m.
Online

Career Exploration Panel (online)

This is a virtual event that will showcase the broad options available to those with a PhD by hosting a panel of individuals from multiple career paths. Career sectors highlighted may include academic research, industry research, biotech, science writing, science teaching, and academic administration.

Friday, March 14, 2025

1:00 p.m.–2:30 p.m.
Online

Careers in Academia (online)

This is a virtual event. This 90-minute discussion panel will feature department heads and academic faculty who will discuss applying and hiring in academia from both sides of the process, as well as provide insight into an academic career.

Wednesday, March 19, 2025

1:00 p.m.–2:00 p.m.
Pacific E

Conference Success Tips and Welcome from the Early Career Leadership Program

The purpose of this event is to help 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 19, 2025

2:30 p.m.–3:00 p.m.
Pacific E

Getting Involved in GSA's Early Career Professional Development

GSA Early Career Leadership Program (ECLP) members will join us in sharing how to get involved in GSA's professional development programming for early career scientists. GSA will walk through upcoming events and programs including how and when to apply to join the ECLP.

Wednesday, March 19, 2025

3:00 p.m.–4:00 p.m.
Pacific A

Come Fly with Me: Community, Connections, and Mentorship

Mentor/Mentee Meet Up

Wednesday, March 19, 2025

3:00 p.m.–4:00 p.m.
Pacific A

Faculty Meet-up

Wednesday, March 19, 2025

3:00 p.m.–4:00 p.m.
Pacific A

Graduate Student Meet-up

Wednesday, March 19, 2025

3:00 p.m.–4:00 p.m.
Pacific A

Postdoc Meet-up

Wednesday, March 19, 2025

3:00 p.m.–4:00 p.m.
Pacific A

Undergraduate Student Meet-up

Wednesday, March 19, 2025

4:00 p.m.–5:00 p.m.
Pacific E

Individual Development Plan (IDP) Workshop

This event will walk early and mid-career scientists through completing an Individual Development Plan using two free virtual tools. The workshop will encourage participants to break out of the linear career path through process and practice of informational interviews.

Wednesday, March 19, 2025

2:00 p.m.–4:00 p.m.
Pacific D

Ecdysone Workshop

2:00 p.m. Joanna Wardwell-Ozgo, PhD and Jacob Jaszczak, PhD, of Kennesaw State University and New Mexico State University: Welcome and Opening Remarks from the Workshop Organizers

2:05 p.m. Laura Buttitta, PhD of University of Michigan: Hormonal signaling and cell cycle remodeling during organ maturation

2:40 p.m. Rachel Thayer, PhD of University of California, Davis: Ecdysone signaling pathways in the somatic female reproductive tract

2:55 p.m. Michelle Starz-Gaiano, PhD of University of Maryland Baltimore County: Ecdysone receptor and co-regulators control border cell dynamics in the ovary by regulating protrusions, adhesion, and polarity

3:10 p.m. BREAK

3:20 p.m. Justin Bosch, PhD of The University of Utah: Proteomic mapping of organ secretomes using in vivo proximity labeling

3:35 p.m. Jennifer Hackney, PhD of Arizona State University: From webs to wings: assessing the role of ecdysone in mediating effects of environmental stress in spiders and flies

3:50 p.m. Joanna Wardwell-Ozgo, PhD and Jacob Jaszczak, PhD of Kennesaw State University and New Mexico State University: Closing Remarks by the Workshop Organizers

Wednesday, March 19, 2025

6:45 p.m.–9:00 p.m.
Town and Country Ballroom A/B

Opening General Session and Keynote

Session Chairs: Todd Nystul, UC San Francisco, United States; and Michelle Bland, University of Virginia, United States

6:45 Welcome to #Dros25

6:55 GSA Welcome and Award Presentations

7:25 Larry Sandler Award Presentation and Lecture

7:30 Taming the beast within: Evolutionary innovation in genome defense Peiwei Chen Cornell University.

1 7:55 RACing from Drosophila border cell migration to an enhanced cellular immunotherapy **Denise Montell** University of California Santa Barbara

Thursday, March 20, 2025

8:30 a.m.–10:17 a.m.
Town and Country Ballroom A/B

Plenary Session I

Session Chairs: Leila Rieder, Emory University; and Justin Crocker, EMBL

8:30 Image Award

2 8:37 Basement Membrane Repair **Andrea Page-McCaw** Vanderbilt University

3 9:02 Investigating Endoplasmic Reticulum Dynamics in Asymmetric Cell Division and Cell Fate Determination **Blake Riggs** San Francisco State University

4 9:27 Microbial Influence on Drosophila Adaptive Growth **François Leulier** IGFL CNRS-ENS de Lyon

5 9:52 Chemical Diversification in *Drosophila*: Insights from Genetics, Microbiota, and Biogeography **Joanne Yew** University of Hawaii at Manoa

Thursday, March 20, 2025

10:45 a.m.–12:45 p.m.
Town and Country Ballroom A/B

Plenary Session II

Session Chairs: Michelle Bland, University of Virginia, United States; and Amanda Crocker, Middlebury College, United States

10:45 GSA Journals **Howard Lipshitz**

10:55 Presentation of Drosophila Community Service Award

6 11:00 Evolution of Morphogenesis **Pavel Tomancak** Max Planck Institute of Molecular Cell Biology and Genetics

7 11:25 Cell cycle variations in development and cancer **Brian Calvi** Indiana University

8 11:50 DrosoPHILA: a model for sustainable outreach programming **Kaitlin Laws** Randolph-Macon College

9 12:15 Meeting the Moment: Using Conversations to Bridge Divides and Build Mutual Understandings **Marnie Gelbart** Harvard Medical School

12:40 GSA's Early Career Leadership Program

Thursday, March 20, 2025

4:30 p.m.–6:30 p.m.
Town and Country Ballroom A/B

Cell Division and Cell Growth

Session Chairs: Max Frolov, University of Illinois at Chicago; and Jeremiah Zartman, University of Notre Dame, United States; and Maria Paula Zappia, University of Illinois at Chicago

10 4:30 Dodging replication forks to express genes during S phase Patrick O'Farrell University of California, San Francisco

11 4:45 Extracellular matrix restrains cell cycle progression by nuclear exclusion of Yorkie in Drosophila Liyuan Sui Technische Universität Dresden

12 5:00 Exploring the effects of muscle-generated mechanical constraints acting on *Drosophila* midgut tissue **Benedicte Lefevre** Team Stem Cells and Tissue Homeostasis, Institut Curie, CNRS, UMR3215, INSERM U934, PSL Research University

13 5:15 Unscheduled endocycling and oncogenic mutations synergize to promote cell growth and tumorigenesis. **Hunter Herriage** Indiana University Bloomington

14 5:30 Mechanisms of PP2A-Ankle2 dependent nuclear reassembly after mitosis **Vincent Archambault** IRIC - Université de Montréal

15 5:45 Studying Double-Stranded DNA Gap Repair Mechanisms Utilizing APOBEC3A Mutagenic Activity **Mohamed Mahmoud** The University of North Carolina at Chapel Hill

16 6:00 Calcium in Neural Development: Cell Cycle and Cell Fate **Jillian Wynne** University of Montana

17 6:15 Dual contributions of Xrp1 to genome integrity through the DNA damage response and cell competition **Chaitali Khan** National Institutes of Health

Thursday, March 20, 2025

4:30 p.m.–6:30 p.m.
Town and Country C

Immunity and the Microbiome

Session Chairs: Paula Watnick, Boston Children's Hospital; and Catherine Brennan, California State University Fullerton, United States; and Xiaotong Li, TAMU

18 4:30 The evolution of *Drosophila's* innate immune responses to bacteria **Cong Li** The Rockefeller University

19 4:45 From Development to Defense: How LIM-only protein drives Myeloid cell development and function **Sakshi Jain** Indian Institute of Science

20 5:00 Taste regulation of immunity **Pierre-Yves Musso** CNRS, CSGA

21 5:15 The TGFβ/Activin ligand Actβ is required to suppress glucose utilization by immune cells in the absence of infection **Heidi Bretscher** University of Minnesota- Twin Cities

22 5:30 Impairing mitochondrial function results in UPR^{mt} activation and improves survival outcomes after Flock House virus infection in *Drosophila melanogaster* **Dean Bunnell** University of Alabama

23 5:45 *Drosophila* gut symbiont-host specificity is driven by selective adhesion **Kevin Aumiller** Johns Hopkins University

24 6:00 Host-microbe cross-feeding determines host survival in a low nutrient context in *Drosophila* **Jason Millington** Stanford University

25 6:15 Fly tumors can evade cellular immunity by modulating basement membrane degradation **Kavya Adiga** University of California, Berkeley

Thursday, March 20, 2025

4:30 p.m.–6:30 p.m.
Town and Country D

Neural Circuits and Behavior

Session Chairs: Sarah Certel University of Montana; and Molly Stanley University of Vermont, United States; and Jonathan Andrews, Baylor College of Medicine, United States

26 4:30 Energetic Demands Regulate Sleep-Wake Rhythm Circuit Development **Amy Poe** University of Arkansas

27 4:45 Taste cells expressing *Ionotropic Receptor* 94e impact multiple behaviors in *Drosophila melanogaster* **Jacqueline Guillemin** University of Vermont

28 5:00 Triggering and modulation of a complex behavior by a single peptidergic command neuron in *Drosophila* **Alisson Gontijo** cE3c - Centre for Ecology, Evolution and Environmental Changes & CHANGE - Global Change and Sustainability Institute, Universidade de Lisboa

29 5:15 Understanding inter-organ communication underlying feeding initiation in juvenile *Drosophila melanogaster* **Cindy Reinger** University of Basel

30 5:30 Coracle Mutants Reveal a Role for Glia in Maintaining Synaptic Integrity **Daniel Babcock** Lehigh University

31 5:45 Trithorax regulates long-term memory in Drosophila through epigenetic maintenance of mushroom body metabolic state and translation capacity **Jamie Kramer** Dalhousie University

32 6:00 A Sex-Specific Neuroligin-based Developmental Switch Regulates Presynaptic Site Formation **Kristen Davis** Thomas Jefferson University

33 6:15 Neural origin of a female behavioral novelty in *Drosophila* **Minhao Li** University of Pennsylvania

Thursday, March 20, 2025

8:00 p.m.–10:00 p.m.
Pacific A

Developmental Mechanics

Organizers: Rodrigo Fernandez-Gonzalez and Guy Tanentzapf

Developmental biology has undergone a revolution over the last two decades, largely as a result of work in *Drosophila*, that placed biomechanical, quantitative imaging, and mathematical modeling approaches at the forefront of the study of tissue morphogenesis. In particular, the establishment of tools to measure and manipulate mechanical forces in living organisms has demonstrated that mechanical forces profoundly shape animal development. In this workshop, we will review the most recent technical advances to visualize and quantify force generation in *Drosophila*, and we will discuss the latest results demonstrating the interplay between physical forces, molecular dynamics, and tissue morphogenesis.

8:06 p.m. Lauren Goins, Stanford University. The glue that binds cells: how adhesive forces shape blood cell development.

8:25 p.m. Noah Mitchell, University of Chicago. Mechanics of embryonic midgut folding and coiling.

8:44 p.m. Marisol Herrera-Perez, University of Rochester. Force distribution in migrating hemocytes and their role during embryonic development.

9:03 p.m. Joe Campanale, University of Nevada - Las Vegas. Leaders can’t lead without followers: the discovery of a polarity-controlled Rac activity pathway in follower border cells.

9:22 p.m. Tara Finegan, University of Missouri. A conserved neural adhesion complex preserves epithelial tissue integrity.

9:41 p.m. Jianjun Sun, University of Connecticut. The mechanical force for follicle rupture during Drosophila ovulation.

Thursday, March 20, 2025

8:00 p.m.–10:00 p.m.
Pacific E

Everything You Wanted to Know About Sex

Organizers: Rita Graze and Michelle Arbeitman

8:00 p.m. Opening Remarks

8:05 p.m. Guy Tanentzapf, University of British Columbia, Sex-specific differences in the regulation and function cellular immunity in *Drosophila*

8:23 p.m. Lydia Grmai, Yale School of Medicine, Sexually dimorphic ATF4 expression in the fat confers female stress tolerance in Drosophila melanogaster

8:41 p.m. Jason P. Tidwell, Texas A&M AgriLife Research, Sex determination in the Southern Cattle Fever Tick, Rhipicephalus (Boophilus) microplus

8:51 p.m. Emily L. Behrman, Dartmouth College, To court or not to court: The genetic basis of neural circuit evolution for Drosophila mate preferences

9:09 p.m. Kevin H-C. Wei, University of British Columbia, Diversification and recurrent adaptation of the synaptonemal complex as a driver of germline novelty in Drosophila

9:27 p.m. Rachel C. Thayer, University of California Davis, Specialized cell types, seminal fluid proteins, and gene expression evolution in the Drosophila female reproductive tract

9:37 p.m. Nicole C. Riddle, The University of Alabama at Birmingham, Sex-specific aging – an update from the Integration Initiative: Sex, Aging, Genomics, & Evolution (IISAGE)

9:55 p.m. Closing Remarks

Thursday, March 20, 2025

8:00 p.m.–10:00 p.m.
Pacific C

Go Big or Go Home: Polyploidy on the Fly

Shyama Nandakumar and Gavin Rice

Work over the past decades establishes that polyploidy is prevalent across the body plan of not only *Drosophila*, but across plant and animal kingdoms. Emerging research establishes the crucial roles of polyploidy in different physiological and cellular contexts, such as supporting rapid growth in metabolic tissues, protecting cells from DNA damage, as well as pathologies such as cancer. *Drosophila* researchers have contributed to many seminal discoveries in this field, and this workshop will serve as an opportunity to bring those researchers together for a lively discussion, as well as to invite newcomers to the field to contribute their findings and find collaborators. This workshop will serve as a meeting place for anyone curious about how/whether ploidy might influence the function of their model tissue. Finally, we will have a moderated discussion on the need for standardizing terminology across labs, and potentially model organisms, to make polyploidy research more accessible to the wider scientific community!

8:00 p.m. Introduction and Opening Remarks

8:05 p.m. Rachel Thayer, UC Davis, Polyploidy in the somatic female reproductive tract

8:20 p.m. Minqi Shen, Boston College, Epithelial cell fusion is required for tissue repair following UV-A irradiation

8:35 p.m. Gary Hime, University of Melbourne, Adult Drosophila salivary gland cells exhibit alternative polarity and mode of cell division

8:50 p.m. Hunter Herriage, Indiana University, Precocious endocycles disrupt ovarian structure and function and impair female fertility

9:05 p.m. Youfang Zhou, Tulane University School of Medicine, Polyploidy facilitates cell migration in epithelial cells

9:20 p.m. Joshua Silva, Duke University, A reverse genetic screen for ploidy-specific gene function

9:35 p.m. Brian Calvi, Indiana University, Moderated session on standardizing terminology

9:55 p.m. Closing remarks and future perspectives

Thursday, March 20, 2025

8:00 p.m.–10:00 p.m.
Town and Country C

Undergraduate Spotlight and Grad School Guidance

Session Chairs: Todd Nystul, UC San Francisco, United States; and Ruth Johnson, Wesleyan, United States; and Justin DiAngelo, Penn State Berks, United States

34 8:00 The dynamics of Myosin reorganization in pupal wing expansion **Anni Yi** Rutgers University New Brunswick

35 8:15 Targeted RNA interference Screen to Identify Novel Modifiers of Huntington's Disease impact on adult viability in *Drosophila* **Sevinch Kamaridinova** Middle Tennessee State University

36 8:30 *Drosophila melanogaster* Genotype Impacts Metabolic Response to Chronic Bacterial Infection **Ananda Kalukin** Cornell University

37 8:45 Coactivator crosstalk: Yorkie and Taiman interact to regulate germline niche-to-stem cell signaling **Chloe Wells** Emory University

38 9:00 Regulation of autophagic cell death by intracellular pH and the proto-oncogene *Myc* **Alan Wong** San Jose State University

39 9:15 Mechanisms of Glyphosate-Based Herbicide Toxicity on *Drosophila* Gonads **Randy Bracamontes** Riverside City College

9:30 Graduate School Guidance

Friday, March 21, 2025

8:30 a.m.–10:00 a.m.
Town and Country Ballroom A/B

Cell Biology: Cytoskeleton, Organelles, and Trafficking I

Session Chairs: Ruth Johnson, Wesleyan, United States; and Mustafa Aydogan, University of California, San Francisco, United States; and Shashank Shekhar, UT Southwestern Medical Center, United States

40 8:30 Affinity hierarchies and amphiphilic proteins underlie the co-assembly of nucleolar and heterochromatin condensates **Varsha Rajshekar** UC Berkeley

41 8:45 Prostaglandin signaling promotes nucleoskeletal changes required for on-time border cell migration **Ashley Goll** University of Iowa

42 9:00 Formation of energid, the non-membrane bound psuedo-cell compartments in the syncytial Drosophila embryo **Chase J. Yezzi** University of Nevada, Las Vegas

43 9:15 Activating adaptors are not essential for Dynein-mediated microtubule gliding during *Drosophila* oogenesis **Phylicia Allen** Medical College of Georgia

44 9:30 Dissecting the mechanistic links between cell chirality and chiral actin fibers formed by class I myosins **Daiki Kitamura** Graduate School of Science, The University of Osaka

45 9:45 A divergent, testis-enriched actin paralog plays roles beyond the germline **Kaitlin Stromberg** UT Southwestern Medical Center

Friday, March 21, 2025

8:30 a.m.–10:00 a.m.
Town and Country C

Chromatin, Epigenetics, and Genomics

Session Chairs: Daniel McKay, UNC, Chapel Hill, United States; and Ella Noon, Israel Institute of Technology; and Aleena Patel, Stanford University

46 8:30 Mapping promoter-enhancer interactions at the *Drosophila shavenbaby* locus **Sujay Naik** Technion

47 8:45 3D dynamics of *trans* enhancer-promoter interactions in living *Drosophila* embryos reveals spatiotemporal thresholds for transcription activation **Bomyi Lim** University of Pennsylvania

48 9:00 Essential, pioneering features of the conserved transcription factor Grainy head **Meghan Freund** University of Wisconsin-Madison

49 9:15 Local nuclear to cytoplasmic ratio regulates H3.3 incorporation via cell cycle state during zygotic genome activation **Anusha Bhatt** Dartmouth College

50 9:30 Interrogating epigenetic regulation of zygotic genome activation **Oscar Arroyo** University of North Carolina - Chapel Hill

51 9:45 BAP/PBAP promotes GAF binding behind the replication fork **Matthew Wooten** Fred Hutch Cancer Center

Friday, March 21, 2025

8:30 a.m.–10:00 a.m.
Town and Country D

Initiatives in Education and DEI

Session Chair: Karen Hales, Davidson College, United States

52 8:30 PROPEL: a scalable model for postbaccalaureate training to promote diversity in the biomedical workforce **Jessica Allen** University of California, San Francisco

53 8:45 Collaborative project-based mentorship in a virtual setting through the Genomics Education Partnership **Logan Cohen** University of Alabama

54 9:00 Fly-CURE and Connecting Curriculum: Multi-Institutional Course-Based Undergraduate Research Experiences in Genetics and Beyond **Kayla Bieser** Nevada State University

55 9:15 Undergraduate researchers in the Fly-CURE map and characterize novel *Drosophila* mutants while experiencing increases in science self-efficacy, sense of belonging, and intent to pursue additional research experiences. **Jacob Kagey** University of Detroit Mercy

56 9:30 Effects of Cannabinoids on Functional Ethanol Tolerance, Fertility, and Microbiome in *Drosophila melanogaster* – Insights from a C.U.R.E. **Sandra Illescas** California State University Northridge

57 9:45 Fun with flies: a K-12 outreach program that promotes the use of *Drosophila* as a model organism **Alexis Nagengast** Widener University

Friday, March 21, 2025

10:30 a.m.–12:30 p.m.
Town and Country Ballroom A/B

Cell Biology: Cytoskeleton, Organelles, and Trafficking II

Session Chairs: Ruth Johnson, Wesleyan, United States; and Mustafa Aydogan, University of California, San Francisco, United States; and Shashank Shekhar, UT Southwestern Medical Center, United States

58 10:30 Uncovering the role of ATP synthase subunits on autophagy termination in *Drosophila* **Miriam Formica** University of Oslo

59 10:45 Monitoring fatty acid trafficking in follicles reveals a critical role for the triglyceride synthase DGAT1 in protecting mitochondrial integrity **Roger White** University of Rochester

60 11:00 Lipid Droplet Proteins ATGL and Jabba Promote *In Vivo* Collective Cell Migration in *Drosophila* **Israel Wipf** University of Iowa

61 11:15 The role of Lamp1 in the non-cell autonomous regulation of endo-lysosomal acidification **Jonathan Handy** Albert Einstein College of Medicine

62 11:30 Dissecting mechanisms that target bulk lipid transport proteins to membrane contact sites **Arash Bashirullah** University of Wisconsin-Madison

63 11:45 Mechanisms of cellular cannibalism in the *Drosophila* egg chamber and melanoma **Lauren Penfield** University of California, Santa Barbara

64 12:00 Ceramide and its metabolites regulate the assembly and release of extracellular microcarriers **Mark Wainwright** University of Oxford

65 12:15 Apocrine secretion: a novel non-canonical and non-vesicular transport and secretory mechanism discovered in the salivary glands of *Drosophila* **Robert Farkas** Slovak Academy Sciences

Friday, March 21, 2025

10:30 a.m.–12:30 p.m.
Town and Country C

Evolution I

Session Chairs: Emily Behrman, HHMI Janelia Research Campus, United States; and Li Zhao, Rockefeller University, United States; and Bing-Jun Wang, United States

66 10:30 Evolution in molecular interactions underlies interspecies incompatibility of a cytoplasmic cell fate determinant **Emily Rivard** Harvard University

67 10:45 Single-cell transcriptomes reveal largely sex-coupled evolutionary changes of sexual circuits in *Drosophila* **Dawn Chen** University of Pennsylvania

68 11:00 TF-High-Evolutionary: In Vivo Mutagenesis of Gene Regulatory Networks for the Study of the Genetics and Evolution of the Drosophila Regulatory Genome **Xueying Li** Beijing Normal University

69 11:15 Trichome-specific polyploidy underlies extreme specializations of a genital novelty in *D. eugracilis* **Gavin Rice** University of Pittsburgh

70 11:30 The ribosomal locus mediates a single-locus hybrid incompatibility in *Drosophila* **Emiliano Marti** University of Rochester

71 11:45 Pervasive transcriptome-wide parallel adaptation in *D. melanogaster* and *D. simulans* male reproductive tracts reveals fine-tuning of intraspecific gene expression variation by natural selection **Tiezheng Fan** University of California, Davis

72 12:00 Coevolution between a DNA satellite and Topoisomerase II triggers an inter-species incompatibility **Cara Brand** University of Pennsylvania

73 12:15 Polymorphic 3D genome architecture mediated by transposable elements **Harsh Girish Shukla** University of California, Irvine

Friday, March 21, 2025

10:30 a.m.–12:30 p.m.
Town and Country D

Physiology, Metabolism, and Aging I

Session Chairs: Heidi Lempradl, Van Andel Institute; and Alisson Gontijo, Faculty of Sciences, University of Lisbon, Portugal; and Krittika Sudhakar, Van Andel Institute, United States

74 10:30 Integrated single-embryo transcriptomics and metabolomics reveal dynamic molecular programs in early *Drosophila* development. **Eduardo Perez-Mojica** Van Andel Institute

75 10:45 Role of kidney Coenzyme A biosynthesis in systematic metabolic control and maintenance of tissue homeostasis in high-turnover tissues **Ting Miao** Harvard Medical School

76 11:00 *In vivo* bioorthogonal tagging and tracing of branched-chain amino acids and their metabolites **Sebastian Sorge** The Francis Crick Institute, London

77 11:15 Neuronal lipid droplets play a sex-biased role in maintaining whole-body energy homeostasis **Jasper Fisher** University of British Columbia

78 11:30 Lactate and glycerol-3-phosphate metabolism cooperatively regulate larval growth in a tissue nonautonomous manner **Madhulika Rai** Indiana University Bloomington

79 11:45 Rapamycin Fly Cell Atlas reveals pro-longevity impact across the whole organism at cellular resolution **Tzu-Chiao Lu** Baylor College of Medicine

80 12:00 Glycolysis is required in the female germline for stem cell maintenance and egg chamber growth, but not for mitotic proliferation, meiotic entry, or oocyte specification **Emily Wessel** University of Wisconsin-Madison

81 12:15 Diacylglycerol Metabolism Dictates Enteric Pathogen Clearance **Xiaotong Li** Texas A&M University

Friday, March 21, 2025

12:45 p.m.–1:45 p.m.
Palm 1-3

Peer into Publishing Q&A

The GSA Journals are hosting a question and answer session with top editors at GENETICS and G3. Join us at the session to learn more about submitting to the journals, the peer review process, and publishing with Society Journals.

Bring a friend, your lunch (cash concession stands available on Flamingo Lawn), and come prepared with questions!

Friday, March 21, 2025

4:30 p.m.–6:30 p.m.
Town and Country C

Evolution II

Session Chairs: Emily Behrman, HHMI Janelia Research Campus, United States; and Li Zhao, Rockefeller University, United States; and Bing-Jun Wang, United States

82 4:30 Repetitive genomic elements shape adaptive evolution in *Drosophila melanogaster* **Alejandra Samano** Texas A&M University

83 4:45 ProteoCast: Proteome-wide prediction of the Functional Impact of Missense Variants in Drosophila melanogaster **Marina Abakarova** Sorbonne University

84 5:00 Reorganization of the apical extracellular matrix underlies morphological diversification in Drosophila genital structures **Ben Vincent** California State University – Los Angeles

85 5:15 A novel gene encodes a secreted protein that specifies variation in a rapidly evolving male reproductive structure **Md Golam Azom** University of Oklahoma

86 5:30 Evolutionary history of two X chromosome meiotic drivers in *Drosophila affinis* **Anjali Gupta** University of Kansas

87 5:45 Chromosome pairing in *Drosophila* hybrids **James Baldwin-Brown** University of Utah

88 6:00 Selective response of mitochondrial and nuclear genomes to an OXPHOS inhibitor in experimental populations of *Drosophila* **Leah Darwin** Brown University

89 6:15 Evolved suppression of recently expanded retroelements **Kevin Wei** University of British Columbia

Friday, March 21, 2025

4:30 p.m.–6:30 p.m.
Town and Country Ballroom A/B

Models of Human Disease I

Session Chairs: Udai Pandey, Children's Hospital of Pittsburgh of UPMC, United States; Grace Zhai, University of Chicago, United States; and Natalie Ortiz-Vega, University of Chicago, United States

90 4:30 Single-Domain Antibodies for Reducing Pathological α-Synuclein and Mitigating Disease Deficits **Pragati Sharma** New York University Grossman School of Medicine

91 4:45 Pathogenic CryAB Mutations in Muscle Suggest a Novel Mechanism for Amyloid Spread via Extracellular Vesicles **Ziwei Zhao** Kansas State University

92 5:00 Breakdown of Neuronal Glycogen Protects Against Tauopathy by Shunting Sugar to the Pentose Phosphate Pathway **Sudipta Bar** Buck Institute for Research on Aging

93 5:15 *Drosophila* modeling of insomnia- and cardiovascular disease-associated genes finds excessive sleep correlates with aberrant cardiac function **Torrey Mandigo** Massachusetts General Hospital/Harvard University

94 5:30 Early life social isolation primes flies for more rapid TDP-43 dependent neurodegeneration later in life **Swetha Murthygowda** Stony Brook University

95 5:45 Investigating the role of mitochondrial LIPT1 and GLUD2 disease-associated variants in flies **Bhagyashree Kaduskar** Baylor College of Medicine

96 6:00 Drosophila Model of HPV18-Induced Pathogenesis Reveals a Role for E6 Oncogene in Regulation of NF-κB and Wnt to Inhibit Apoptosis **Rami Hassan** University of Oklahoma

97 6:15 Translation regulation by ribosome recycling factors in retinal development and disease **Katherine Querry** University of Pittsburgh School of Medicine

Friday, March 21, 2025

4:30 p.m.–6:30 p.m.
Town and Country D

Physiology, Metabolism, and Aging II

Session Chairs: Heidi Lempradl, Van Andel Institute; Alisson Gontijo, Faculty of Sciences, University of Lisbon, Portugal; and Krittika Sudhakar, Van Andel Institute, United States

98 4:30 Regulation of Drosophila Muscle Stem Cells by The Octopaminergic Nervous System **Ammar Aly** The Buck Institute for Research on Aging

99 4:45 Evolution of gut symbionts over a single lifespan can reduce host longevity **Angela Xu** Johns Hopkins University

100 5:00 Microbiota-mediated suppression of a gut-derived decretin's expression promotes *Drosophila* larvae systemic growth upon malnutrition **Longwei Bai** Institut de Génomique Fonctionnelle de Lyon, Ecole Normale Supérieure de Lyon, CNRS UMR5242, Université Claude Bernard Lyon 1

101 5:15 Diabetes and obesity regulated (DOR)/ TP53INP1 regulates mortality, resilience, and ovarian senescence in Drosophila melanogaster Dipti Verma Buck Institute for Research on Aging

102 5:30 Developmental programming of respiratory complex levels determines lifespan **Beatriz Castejon Vega** School of Molecular Biosciences, College of Medical, Veterinary and Life Sciences, University of Glasgow

103 5:45 The *Drosophila melanogaster suppressor of black* mutation, *su(b)*, maps to Malonate Semialdehyde Dehydrogenase (MSDH), the final enzyme in the beta-alanine catabolic pathway **Eric Spana** Duke University

104 6:00 Single-cell CUT&Tag tracks cell type specific chromatin changes in the aging Drosophila intestine **Sarah Leichter** Fred Hutchinson Cancer Center

105 6:15 Aggregation of the Nuclear Envelope Protein Lamin in Aging and Disease **Alysia Vrailas-Mortimer** Oregon State University

Friday, March 21, 2025

8:00 p.m.–10:00 p.m.
Pacific C

Emerging Topics in Inter-Organ Communication

Organizers: Aaron Johnson and Fabio Demontis

Inter-organ communication is emerging as a critical regulator of metabolism, aging, development, and disease. Pioneering work leveraging the unique genetic tools available in *Drosophila* demonstrated a key role of long-distance signaling and organ crosstalk in many physiologic and pathologic contexts. In this workshop, we will bring together researchers to discuss the most recent technical advances for investigating inter-organ communication, to review the latest results exploring organism-level tissue crosstalk, and to foster interactions that will address future directions and challenges in the field. This workshop will also provide an overview of the field for researchers interested in entering this relatively new research space.

8:00 p.m. Aaron Johnson, Washington University School of Medicine, Fabio Demontis, St. Jude Children's Research Hospital, Introduction

8:10 p.m. Deepika Vasudevan, University of Pittsburgh, Fat-to-oocyte signaling

8:30 p.m. Hua Bai, Iowa State University, Peroxisomes in inter-organ communication

8:50 p.m. Ilia Droujinine, The Scripps Research Institute, Untangling the inter-organ communications network

9:10 p.m. David Bilder, University of California, Berkeley, Tumor-muscle communication

9:30 p.m. Heinrich Jasper, Genentech, Gut-glial communication

9:50 p.m. Fabio Demontis, St. Jude Children's Research Hospital, Aaron Johnson, Washington University School of Medicine, Concluding remarks

Friday, March 21, 2025

8:00 p.m.–10:00 p.m.
Pacific D

How to Integrate the History of Racism and Bias in STEM in the Classroom

Organizers: Drea Darby and Taylar Mouton

While the field of genetics has been powerful in advancing our understanding of the natural world and mechanisms of human disease, it has also historically been used to justify inequities in society. It is imperative as scientists to educate ourselves and our students on the history of racism and the consequences of this bias in science today, and to identify solutions to overcome societal harm. In this workshop, participants from varying career stages will 1) identify and understand their positionality and societal privilege in STEM, 2) learn how to create their own "Bias in Science" seminar course, and 3) outline best practices for adapting content from this course at their institution. Our aim with this workshop is to establish a community for knowledge exchange and ongoing support for integrating human experiences into STEM curricula.

Friday, March 21, 2025

8:00 p.m.–10:00 p.m.
Pacific E

Perspectives on Flies for Opportunities and Advances in Toxicological Science

Organizers: Matthew Rand and Jason Tennessen

Industries generate over 350,000 synthetic chemicals, most of which remain uncharacterized for environmental safety or human health effects. Increasing exposure of humans and wildlife to these compounds poses the urgent need for more rapid and information-rich approaches to attaining new knowledge of the toxicity mechanisms that impact developing and mature organisms. This workshop will highlight examples where the fly has advanced mechanistic understanding of prevalent environmental toxicants using basic and data-intensive methods. The workshop will also target establishing standardized approaches that are built on established principles of toxicology while optimizing use of uniquely powerful methodologies in the fly model.

Friday, March 21, 2025

8:00 p.m.–10:00 p.m.
Pacific A

Single-cell Research in *Drosophila*: Technologies and Resources

Organizers: Hongjie Li and Norbert Perrimon

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 current single-cell resources available to the community, demonstrate their utility, and showcase recent applications of emerging techniques, such as single-cell multiomics and spatial transcriptomics in *Drosophila* research.

8:00 p.m. Hongjie Li/Norbert Perrimon, Baylor College of Medicine/Harvard University, Overview of single-cell research in Drosophila

8:15 p.m. Mujeeb Qadiri, Harvard University, FlyPhone 2.0: Using the Power of scRNA-seq to Investigate Cell-Cell Communication in Drosophila

8:30 p.m. Bo Sun, Baylor College of Medicine, Whole-organism single-cell multiomics to decode aging and longevity

8:45 p.m. Eren Can Eksi, KU Leuven, Belgium, Modeling the Complete Enhancer Landscape of the Adult Fruit Fly

9:00 p.m. Yuhui Hu, Southern University of Science and Technology, China, A Drosophila single-cell 3D spatiotemporal multi-omics atlas unveils panoramic key regulators of cell type differentiation

9:15 p.m. Wu-Min Deng, Tulane University, Single-Cell RNA Sequencing Analysis in Drosophila Tumor Models

9:30 p.m. Yen-Chung Chen, New York University, An efficient and universal single-cell transcriptomic analysis framework for cell-type-specific labeling and manipulation

9:45 p.m. UnJin Lee/Li Zhao, Rockefeller University, Comparative single cell analysis of transcriptional bursting reveals the role of genome organization on de novo transcript origination

Saturday, March 22, 2025

8:00 a.m.–10:00 a.m.
Town and Country Ballroom A/B

Neural Development and Physiology

Session Chairs: Nikos Konstantinides, Institute Jacques Monod; Quan Yuan, NIH, United States; and Deeptha Vasudevan, University of Chicago, United States

106 8:00 Novel molecular mechanisms in the reactivation and asymmetric cell division of Drosophila neural stem cells **Mahekta Gujar** Duke-NUS Medical School

107 8:15 A genetically-encoded method for *in vivo* tagging and tracing of lipids from cell-to-cell **Victor Girard** The Francis Crick Institute

108 8:30 Chromatin Loops as Regulatory Mechanisms for CAM Gene Expression in Drosophila Neural Development **Xiao Li** Princeton University

109 8:45 Distinct input-specific mechanisms enable presynaptic homeostatic plasticity **Dion Dickman** University of Southern California

110 9:00 Homeodomain Proteins in Newborn Neurons: Codes for Neuron Type Specification and Expansion **Chundi Xu** HHMI, University of Oregon

111 9:15 Ca^{2+} dynamics regulate cellular identity and cell cycle progression in neural stem cell lineages **Beverly Piggott** University of Montana

112 9:30 How flexibility in stem cell biology drives interspecies neuronal diversity **Sam Swank** University of Chicago

113 9:45 *mir-279/996* controls sensory organ development and behavior via discrete targets **Binglong Zhang** MSKCC

Saturday, March 22, 2025

8:00 a.m.–10:00 a.m.
Town and Country D

Regulation of Gene Expression

Session Chairs: Amanda Larracuente University of Rochester, United States; and Victoria Meller Wayne State University; and Peiwei Chen, Cornell University

114 8:00 miR-137 targets Myc to regulate Development and Tumor Growth in *Drosophila* eye model **Radhika Padma** University of Dayton

115 8:15 Intron-mediated delays in gene expression controls ~24-hour circadian rhythms **Swathi Yadlapalli** University of Michigan

116 8:30 Alcohol alters gene expression in GABA neurons via the mondo signaling pathway **Collin Merrill** University of Utah

117 8:45 A malleable pipsqueak amyloid controls polycomb complex function in Drosophila **Kaili Li** Stowers Institute for Medical Research

118 9:00 Probing the boundaries of *cis* element flexibility at the *Drosophila* histone locus **Lauren Hodkinson** Emory University

119 9:15 Aggregation and DNA binding of Dorsal/NF-kappaB in early embryos **Sadia Siddika Dima** Texas A&M University

120 9:30 Cell cycle-regulated transcriptional pausing controls replication-dependent *Drosophila* histone gene expression **Mark Geisler** University of North Carolina - Chapel Hill

121 9:45 The Contribution of Genome Structural Variants to Complex Trait Variation in *Drosophila melanogaster* **Trevor Millar** Texas A&M University

Saturday, March 22, 2025

8:00 a.m.–10:00 a.m.
Town and Country C

Reproduction and Gametogenesis

Session Chairs: Margaret de Cuevas, Johns Hopkins School of Medicine, United States; Lacy Barton, The University of Texas at San Antonio, United States; and Leif Benner, National Institutes of Health, Australia

122 8:00 Characterizing the pupal development of wave one ovarian follicles in *D. melanogaster* **Yunpeng Fu** Johns Hopkins University

123 8:15 Mild chronic cold improves female germline stem cell maintenance despite activation of transposable elements in the germline **Ana Caroline Gandara** Morgridge Institute for Research

124 8:30 Ecdysone signaling and BMP signaling converge to regulate ovarian germline stem cell maintenance and differentiation **Alexandria Warren** East Carolina University

125 8:45 Programmed nuclear pore replacement during *Drosophila* oogenesis **Shruti Venkat** Icahn School of Medicine at Mount Sinai

126 9:00 Dafcin, a novel amphipathic peptide with membrane-penetrating ability in the *Drosophila* ovary **Kevin Nyberg** Northwestern University

127 9:15 Somatic cells non-autonomously control germline incomplete cytokinesis through FGF signaling **Beth Kern** Drexel University

128 9:30 Novel roles for nuclear pore components in sperm development **Danielle Buglak** National Heart, Lung, and Blood Institute

129 9:45 Genetic and cellular processes regulating sperm length: Insights from *D. pseudoobscura* testis single cell RNAseq **Fiona Messer** Cardiff University

Saturday, March 22, 2025

10:30 a.m.–12:00 p.m.
Town and Country C

Cell Stress and Cell Death

Session Chairs: Yoichiro Tamori, Kyoto University, Japan; Rob Harris, Arizona State University, United States; and Xianfeng Wang, Tulane University School of Medicine, United States

130 10:30 The Role of Ca^{2+} Signaling in Apoptosis-induced Proliferation **Komal Suthar** UMass Chan Medical School

131 10:45 A novel micropeptide modulates *Drosophila* development, metabolism and stress response **Shyama Nandakumar** University of Pittsburgh

132 11:00 Erebosis is a heme-dependent non-apoptotic cell death in Drosophila enterocytes **Motohiro Morikawa** RIKEN BDR

133 11:15 Isoform-specific functions of the phosphatidylserine sensor Orion reveal unknown eat-me signals in engulfment and degeneration of neurites **Nicolas Vergara Ruiz** Cornell University

134 11:30 The role of p53 and Dronc in regeneration following necrosis **Jordan Hieronymus** Arizona State University

135 11:45 Tumour cell death and its fundamental role in establishing a pro-tumourigenic microenvironment **Andrew Davidson** University of Glasgow

Saturday, March 22, 2025

10:00 a.m.–10:30 a.m.
Town and Country Foyer

Coffee Break

Saturday, March 22, 2025

10:30 a.m.–12:00 p.m.
Town and Country Ballroom A/B

Patterning, Morphogenesis, and Organogenesis I

Session Chairs: Lauren Goins, Stanford Medicine; Rajprasad Loganathan, Wichita State University, United States; and Lauren Penfield, United States

136 10:30 Endogenous OptoRhoGEFs reveal biophysical principles of epithelial tissue furrowing **Andrew Countryman** Columbia University

137 10:45 Gene network divergence gives rise to three distinct organs during embryogenesis from homologous primordia. **Daniel Barcenilla-Merino** Centro Andaluz de Biología del Desarrollo (CABD) (CSIC-UPO-JA)

138 11:00 Chitin is a critical determinant for generating curvature in the *Drosophila* corneal lens **Neha Ghosh** NYU School of Medicine

139 11:15 Comparative Analysis of Homologous Gene Functions using *Drosophila melanogaster* **Makenna Dunkel** Kennesaw State University

140 11:30 How to divide a multinucleated cell – lessons from myofiber splitting of Drosophila indirect flight muscle **Shiv Sharma** University of Texas Southwestern Medical Center, Dallas

141 11:45 Adult *Drosophila* salivary gland cells exhibit alternative polarity and mode of cell division **Gary Hime** University of Melbourne

Saturday, March 22, 2025

10:30 a.m.–12:00 p.m.
Town and Country D

Signal Transduction

Session Chairs: Lea Goentoro, Caltech; Gregory Reeves, Texas A&M University, United States; and Vincent Stepanik, California Institute of Technology, United States

142 10:30 Hippo's Dynamic Duo": How Yorkie and Wingless Orchestrate Tumor Growth? **Arushi Rai** University of Dayton

143 10:45 Peptide hormone shapes lipid-steroid metabolic states to trigger sexual maturation **Jie Sun** Tulane University

144 11:00 PKA/RAF/ERK signaling interactions in brain learning and memory circuitry **James Sears** Vanderbilt University

145 11:15 Toll-7 acts through Fra/DCC-dependent and -independent pathways to guide commissural axons across the midline **Sarah Gagnon** University of Pennsylvania

146 11:30 Retinal Calcium Waves Regulate Tissue Patterning of the Fly Eye. **Ben Choi** New York University

147 11:45 Cell-surface proteomic profiling of the trachea-wing disc interface identifies proteins required for cytoneme formation and morphogen signaling **Wanpeng Wang** UCSF

Saturday, March 22, 2025

4:00 p.m.–6:00 p.m.
Town and Country C

Models of Human Disease II

Session Chairs: Udai Pandey, Children's Hospital of Pittsburgh of UPMC, United States; Grace Zhai, University of Chicago, United States; and Natalie Ortiz-Vega, University of Chicago, United States

148 4:00 Uncovering circadian mechanisms underpinning anti-aging benefits of time-restricted feeding (TRF) **Timothy Chang** Columbia University

149 4:15 Determining the role of dVGLUT in sex specific differences in Parkinson's Disease models. **Kevin Garzillo** Lehigh University

150 4:30 *Drosophila* models of GABA dysregulation in *SLC6A1*-neurodevelopmental disorder **Paige Hall** Baylor College of Medicine

151 4:45 Cortex glial subtypes in the central nervous system differentially regulate seizure susceptibility **Govind Kunduri** National Cancer Institute

152 5:00 *Drosophila* models of genetic microcephaly identify conserved mechanisms of neurodevelopment. **Nichole Link** University of Utah

153 5:15 Dissecting the role of bulk lipid transporters in human disease: a novel movement disorder model **Sarah Neuman** University of Wisconsin-Madison

154 5:30 *CNTN2* is a candidate modifier in a PIGA-CDG pedigree with reduced penetrance **Holly Thorpe** University of Utah

155 5:45 Investigating the Synergy between the Gut Microbiome and Sweet Taste Receptors and their Impact on Glucose and Lipid Metabolism in Drosophila **Mikesha Carter** San Francisco State University

Saturday, March 22, 2025

4:00 p.m.–6:00 p.m.
Town and Country Ballroom A/B

Patterning, Morphogenesis, and Organogenesis II

Session Chairs: Lauren Goins Stanford Medicine; and Rajprasad Loganathan Wichita State University, United States; and Lauren Penfield, , United States

156 4:00 Mitochondrial function is a key regulator of adult fat body differentiation in development **Ignacio Fernandez Guerrero** University of Glasgow

157 4:15 Bending the Rules: How Somatic Cell Mechanics Drives Reproductive Evolution **Suhrid Ghosh** HHMI/Harvard University

158 4:30 Dpp and Defective Proventriculus: A Tug-of-War in Determining Eye and Head Fate **Anjali Sangeeth** University of Dayton

159 4:45 Effect of hemocyte migration patterns on extracellular matrix deposition and embryonic development **Elena Dapi** University of Rochester

160 5:00 Spatial Resolution and Scaling Limitations of Tissue Extension Machinery in a Rapidly Remodeling Embryonic Epithelium **Liam Russell** University of Denver

161 5:15 Understanding The Development of Key Somatic Cell Types in Drosophila Ovaries **Joanna Portillo** Johns Hopkins University

162 5:30 Genetic tools for characterizing enteroendocrine cells in the *Drosophila* midgut **Stephanie Mauthner** Department of Biology, Indiana University

163 5:45 A mitochondrial redox switch licenses the onset of morphogenesis in animals **Mustafa Aydogan** University of California, San Francisco

Saturday, March 22, 2025

4:00 p.m.–6:00 p.m.
Town and Country D

Stem Cells, Regeneration, and Tissue Injury

Session Chairs: Juliet Girard UMass Boston; and Mayu Inaba UConn Health, United States; and Amelie Raz, Whitehead Institute for Biomedical Research, United States

164 4:00 Melanization regulates wound healing by limiting polyploid cell growth in the *Drosophila* abdominal epithelium **Loiselle Gonzalez** Boston College

165 4:15 *Lactobacillus brevis* induces regenerative response in *Drosophila* through ornithine **Gloria Bates** California Institute of Technology

166 4:30 Nrf2/CncC and Hsf1 play a role in intestinal stem cell identity and gut homeostasis in *Drosophila* **Imilce Rodriguez-Fernandez** University of Puerto Rico Rio Piedras

167 4:45 The *Drosophila* testis compensates for catastrophic germ cell loss by altering stem cell cytokinesis **Christie Campbell** Drexel University

168 5:00 CG15312 suppresses apoptosis in long-lived *Drosophila* hindgut enterocytes **Jessica Sawyer** Duke University

169 5:15 Transformation of enteroendocrine cell identity by the stress-inducible transcription factor *Xrp1* **Qingyin Qian** University of Tsukuba

170 5:30 Membrane-bending proteins promote formation of a curved apical domain during *de novo* polarization in intestinal stem cell progeny **Anthony Galenza** Stanford University School of Medicine

171 5:45 BubR1 and Mad2 regulate adult midgut remodeling in *Drosophila* diapause **Yuichiro Nakajima** The University of Tokyo

Saturday, March 22, 2025

8:30 p.m.–10:00 p.m.
Town and Country Ballroom A/B

Techniques and Technology Session

Session Chairs: Hongjie Li, Baylor College of Medicine, United States; Kate O'Connor-Giles, Brown University; and Tzu-Chiao Lu, Baylor College of Medicine

172 8:30 State-of-the-art CRISPR screening technologies for *Drosophila* research and beyond **Stephanie Mohr** Harvard Medical School

173 9:00 The Multiomics Aging and Prolongevity Fly Cell Atlas (MAP-FCA): a Resource for Unraveling the Dynamics of Gene Regulation during Aging nordpass-listeners **Tyler Jackson** Baylor College of Medicine

174 9:15 Driving a protective single allelic variant of the mosquito FREP1 gene to combat malaria **Zhiqian Li** University of California

175 9:30 GENIE grants new tools: GCaMP8 for calcium imaging and rubyACR to inhibit neuronal activity **Daniel Bushey** Janelia Research Campus

176 9:45 *In-silico* discovery of inter-organ communication proteins **Justin Bosch** University of Utah

Sunday, March 23, 2025

8:30 a.m.–11:40 a.m.
Town and Country Ballroom A/B

Closing Plenary

Session Chairs: Amanda Crocker, Middlebury College, United States; Todd Nystul, UC San Francisco, United States; Leila Rieder, Emory University; and Michelle Bland, University of Virginia, United States

8:30 GSA Poster Awards

177 8:35 Cellular programs enabling immune cell tissue invasion and beyond **Daria Siekhaus** University of California Los Angeles

178 9:00 Interconversion of compound eyes and ocelli through the dialing of transcription factor levels **Justin Kumar** Indiana University

179 9:25 Everything you ever wanted to know about sex (but were afraid to ask) **Mark Van Doren** Johns Hopkins University

9:50 Break

180 10:15 Lipid droplets as regulators of oogenesis and embryogenesis **Michael Welte** University of Rochester

181 10:40 Nutritional Inheritance in Early Development and Disease **Monica Dus** University of Michigan

11:05 Hugo Bellen/Catherine Tasnier Drosophila Neurogenetics Lecture

11:10 Cellular and Molecular Basis of Protein-specific Appetite **Qili Li** UCSF

11:35 Closing Remarks

Poster Session Listings

Cell Biology: Cytoskeleton, Organelles and Trafficking

182T A single-nucleus transcriptome atlas of the *Drosophila* embryogenesis to identify Jagunal as a regulator in early development **Stephanie Uzordinma Awuzie** San Francisco State University

183T Apoptotic signaling pathways mediate the production of STING-dependent extracellular vesicles from malignant tumors in *Drosophila melanogaster* **Alexandra Fernandes** California State University, Long Beach

184T The role of asymmetric cell division in multilineage blood cell development during homeostasis in *Drosophila* **Gerson Ascencio** Stanford University

185T Polarized trafficking of cell-cell adhesion proteins facilitates collective migration during embryonic wound healing **Katheryn Rothenberg** University of Iowa

186T OA/Oamb through Gγ1, Cyst and RhoGEF2 in the follicular epithelium regulates Rho1-mediated contraction for follicle rupture during *Drosophila* ovulation **Stella Cho** University of Connecticut

187T A new regulatory dimension of nuclear-cytoplasmic transport through the nuclear pore complex in early *Drosophila* embryos **Yuki Shindo** The University of Texas at Dallas

188T Mechanisms of TNF-α Pathway Activation in Response to Gliotactin Overexpression in Wing Disc Epithelia **Zazil Adriana Solis Saldivar** University of British Columbia

189T Mushroom bodies tiny regulates Sidekick localization to tricellular adherens junctions **Jessica Treisman** New York University Medical Center

190T The Regulation of Cell Fate Determinants by the microRNA, miR-190, During Asymmetric Cell Division in Drosophila Neuroblasts **Laura Galvan** San Francisco State University

191T The role of the repetitive region of *Hsr-omega* long non-coding RNA in the formation of B-bodies. **Sharar Haque** Kennesaw State University

192T Actin modification by Mical/SelR is necessary for actomyosin ring dynamics and efficient cell wound repair **Mitsutoshi Nakamura** Fred Hutchinson Cancer Center

193T Exploring the functional interaction of Kibra and aPKC in the Follicular Epithelium **KathyAnn Lee** University of Chicago

194T Vitellogenic oocytes is an excellent in vivo moderl to study endolysosomal trafficking in *Drosophila* **Stephen Farmer** The University of Texas MD Anderson Cancer Center UTHealth Graduate School of Biomedical Sciences (MD Anderson UTHealth GSBS)

195T Characterizing actin structures during tube formation in *D. melanogaster* egg chambers **Luana Paleologu** University of Washington

196T Waldorf binds to apical β_H-spectrin to regulate apical domain stability and cell cycle-independent Crumbs/Expanded/Hippo-Warts pathway-mediated growth **Claire Thomas** Penn State University

197T Identification of the Wnt Maturation Complex **Kate Henesey** Harvard University

198F CG14767: a novel regulator of the Hippo/Yki tumor suppressor pathway **Swastik Mukherjee** University of Massachusetts at Boston

199F Organization of the apical extracellular matrix during tubular organ formation **SeYeon Chung** Louisiana State University

200F Role of MICOS Complex in Mitochondrial Dysfunction During Aging **Victor Knowles** San Francisco State University

201F Elucidating the structural and functional roles of Sarcalumenin, a key component of the muscle fiber sarcoplasmic reticulum **Eyal Schejter** Weizmann Inst Sci

202F Comprehensive Analysis of the Exocyst Complex in Regulated Exocytosis: Novel Roles and Pathway Requirements **Mariana Melani** Fundación Instituto Leloir

203F Regulation of membrane-associated dense-core granule biogenesis in secretory compartments is controlled by Amyloid Precursor Protein-Like and disrupted by Aβ and Tau expression **Clive Wilson** Oxford University

204F TOGARAM1 is required for sperm head-tail connection **Emma Burns** National Heart, Lung, and Blood Institute, National Institutes of Health

205F Characterizing nucleolar organization within the germline cells of the *Drosophila* ovary **Anna Ramsey** University of Iowa

206F Starvation-Induced Lipid Droplets, An Oogenesis Specific Protect Against Starvation Stress **Minhao Chen** University of Rochester

207F Plexin/Semaphorin Antagonism Orchestrates Collective Cell Migration, Gap Closure and Organ Sculpting **Maik Bischoff** UNC Chapel Hill

208F Using expansion microscopy to track NP maturation through intracellular compartments of larval *Drosophila melanogaster* brains **Amelia Mitchell** Middle Tennessee State University

209F Exploring Genetic Connections Between Cardiolipin, CG5755, and Ant2 in *Drosophila melanogaster* Spermatogenesis **Linden Patterson** Davidson College

210F Alterations in Age and Sex Specific Metabolism in a *Drosophila melanogaster* Model of PLA2-VIA Associated Neurodegeneration **Rubaia Tasmin** Texas Tech University

211F Investigating the Effects of Microtubule Acetylation on Neuronal Development and Behavior in Drosophila Melanogaster **Sophia Trujillo** University of California, San Diego

212F An expanding role of Protein kinase N (Pkn) as a Rho1 effector in *Drosophila melanogaster*. **Georgette Sass** Grand Valley State University

213S The MAST Kinase Drop out controls polarized membrane growth through a Rab11/Nuf - dependent recycling endosome pathway by phosphorylation of Dynein-light intermediate chain **Hans-Arno Müller** Universität Kassel

214S Investigating the regulation of v-ATPase-mediated autolysosomal acidification **Amanda Scharenbrock** University of Minnesota Twin Cities

215S AAA+ ATPase paralogs Nmd and CG4701 are Required for Mitochondrial Shaping and Peroxisomal Maintenance in *Drosophila melanogaster* Spermatogenesis. **Amelia Roselli** Davidson College

216S RhoA and its effectors uniquely modulate border cell cluster texture and mechanics **Emily Gemmill** University of California, Santa Barbara

217S Comparative Analysis of Clinical Variants in the Functional Domains of DNM1L Reveals a Spectrum of Peroxisomal and Mitochondrial Alterations in *Drosophila* Larval Muscle **Saurabh Srivastav** Baylor College of Medicine

218 Number intentionally left blank

219S Snail-dependent downregulation of junctional Bazooka during epithelial-mesenchymal transition **Yasong Pang** University of Nevada, Las Vegas

220S LINC(ing) Nucleoporins in *Drosophila* myogenesis **Arun Kumar** San Diego State University

221S Dissecting the Spir/Capu interactome and the role it plays in the regulation of the actin mesh **Carolyn Wu** UCLA

222S Macrophage invasion is affected by mechanics of surrounding cells through positioning of divisions **Maria Akhmanova** Memorial Sloan Kettering Cancer Center

223S Cofilin modulates survival of heat stressed embryos **Faizan Rashid** University of Illinois at Urbana Champaign

224S Collective filopodia dynamics during sensory bristle pattern formation in Drosophila **Sushmita Kundu** Clarkson University

225S SLMO transfers phosphatidylserine between the outer and inner mitochondrial membrane in *Drosophila* **Siwen Zhao** National institute of Biological Sciences, Beijing

226S Genetic dissection of motor proteins mediating dense core vesicle axonal trafficking in *Drosophila* **Aidan Dermady** National Institute of Neurological Disorders and Stroke

227S Drosophila Clu ribonucleoprotein particle dynamics rely on the availability of functional protein and polysome stability **Rachel Cox** Uniformed Services University

228S Investigating the tissue-specific impact of EMC4 knockdown on fertility and lifespan in *D. melanogaster* **Salma Abdelkhalek** Lake Forest College

Cell Division and Cell Growth

229T 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

230T Investigating the role of 2-hydroxyglutarate in *Rp/+ Minute* cell physiology and cell competition. **Alex Mastrogiannopoulos** University of Bristol

231T Sex-dimorphic tumor growth is regulated by tumor microenvironmental and systemic signals **Xianfeng Wang** Tulane University School of Medicine

232T Meiotic crossover control at the *D. melanogaster* pericentromere is multifaceted **Nila Pazhayam** University of North Carolina at Chapel Hill

233T Basal (non-induced) autophagy during meiotic prophase is required for accurate chromosome segregation in Drosophila oocytes **Diana Hilpert** Dartmouth College

234T Spontaneous meiotic nondisjunction of chromosome *2*: a genomic analysis **Carolyn Turcotte** University of North Carolina at Chapel Hill

235T HP1 recruits the chromosomal passenger complex to the chromosome for acentrosomal spindle assembly in meiosis **Siwen Wu** Rutgers University

236T Fox transcription factors mediate proper positioning of cardiac cells by restricting the expression of ECM genes. **Shaad Ahmad** Indiana State University

237T Twin role of zinc finger transcription factor Castor: specification of cardiac cell subtype and regulation of cardiac progenitor cell division. **Shaad Ahmad** Indiana State University

238T Mud at Meiosis: Don't worry about the Tip **Tara Finegan** University of Missouri

239T Elucidating the role of Polo kinase activity and regulation in the meiotic drive of B chromosomes in *D. melanogaster* **Kaylah Samuelson** University of Connecticut

240T Multiple maternal factors induce the mitotic failure of the *359-bp* satellite in *Drosophila* hybrids **Tianzhu Xiong** Cornell University

241F The Ptch/SPOUT1 methyltransferase deposits an m^3U modification on 28S rRNA for normal ribosomal function in flies and humans **Yikang Rong** University of South China

242F Synaptic Vesicle Glycoprotein 2 function during multipolar division in *Drosophila melanogaster* **Jane Blackmer** Duke University School of Medicine

243F Hippo-activated cells induce non-cell autonomous tumorigenesis in *Drosophila* **Daichi Honda** Program of Biomedical Science, Graduate School of Integrated Sciences for Life, Hiroshima University, Japan

244F Investigating the potential role of Mapmodulin as an H2A.Z chaperone in regulating early embryonic development **Noah Reger** University of Rochester

245F Mitotic polarity oscillation promotes epithelial tumor progression. **Sarah Robinson** University of Toronto

246F Intercellular organelle transport in the larval adipocytes is mediated by ring canals **Shyama Nandakumar** University of Pittsburgh

247F The Characterization of *Drosophila* FANCD2 in Repair of DNA Double-strand breaks **Jeannine LaRocque** Georgetown University

248F A potential role of NudC in ribosome biogenesis homeostasis in *Drosophila* polyploid cells **Duoduo Shi** Graduate School of Science and Technology, University of Tsukuba, Japan

249F A reverse genetic screen for ploidy-specific gene function **Joshua Silva** Duke University

250F B chromosomes disrupt proper chromosome segregation during female meiosis **Suparna Dutta** University of Connecticut

251F Uncovering how increased dietary protein regulates the IGF-1 homolog Dilp6 **Kelly Dunham** University of Virginia

252F Identification of *sisters separate (ssep),* a gene required for meiotic centromere cohesion in *Drosophila melanogaster* **Sanay Hewitt** Univ North Carolina Greensboro

253S Developing a Drosophila model for Neprilysin's role in cisplatin resistance **Jaxon Salazar** New Mexico State University

254S Polyploid cell migration depends on JNK activation **Youfang Zhou** Tulane University

255S Transcriptional regulation in response to cell size during zygotic genome activation **Grace Carey** Dartmouth College

256S The Fanconi Anemia pathway regulates Nickase-induced HTR in *Drosophila* **Ian Rousseau** University of California San Diego

257S Investigating the roles of Kinases and Phosphatases in Tumor Cell Dissemination **Ginger Chiu** California State University of Long Beach

258S Mechanism of region-specific tumor-suppression in *Drosophila* epithelium **Tomonori Nakanishi** Kyoto University

259S Defining Molecular Mechanisms of Polymerase θ-Mediated Mitotic DSB Repair and Acentric Chromosome Segregation **Erin Dickert** Duke University

260S Identifying the functions of metazoan Nup98 and Nup96 during entry into S phase **Evi Malagise** Vanderbilt University

261S Identification of sumoylation targets of dTopors in testis in Drosophila melanogaster **Amel Moustafa** University of North Carolina Greensboro

262S Deletion of Bloom Syndrome Helicase Regions Conserved Among Closely Related *Drosophila* Species Provides New Insights on Function **Evan Dewey** Winthrop University

263S Non-Uniform Chromosomal SNP Density Biases Sites of Meiotic Crossovers **Savanna Hinson** University of Virginia

264S *Drosophila* CRC Models to Study Tumor-Promoting Signaling Interactions **Brandon Clark** University of Dayton

265S Investigating the role of $CRL4^{Cdt2}$ and Condensin I subunits after DNA damage **Satya Yalamanchi** Duke University

266S Dissecting Fox transcription factor-mediated regulation of Polo kinase activity essential for cardiac progenitor cell divisions **Shaad Ahmad** Indiana State University

Cell Stress and Cell Death

267T Decoding Caspase Substrate Cleavage: New Insights from *Drosophila* Proteomics **Pooja Rai** University of Massachusetts Medical School

268T Single cell transcriptomics reveal distinct cell clusters regulating Apoptosis-induced Proliferation **Prathibha Yarikipati** University of Massachusetts Chan Medical School

269T Investigating cell signaling genes controlling the clearance of dying cells in the ovary. **Jeanne Peterson** Boston University

270T Pink1 represses apoptosis and allows proper morphogenesis after exposure to ionizing radiation in *Drosophila melanogaster* **Tin Tin Su** University of Colorado

271T Molecular mechanisms in cell competition and ribosomopathy **Nicholas Baker** University of California at Irvine

272T UFMylated ER Proteins Scaffold p62 Condensates for Regulation of Neuronal Structural Plasticity **Shashank Shekhar** UT Southwestern Medical center

273T Defective cell clearance in perturbed *Drosophila melanogaster* lines **Pamela Yang** Boston University

274F The integrated stress response transcription factor ATF4 regulates border cell collective motility **Rehan Khan** Kansas State University

275F Subcellular Mechanisms of Programmed Cell Death During Drosophila Oogenesis **Georgette-Vanelle Wandji** Boston University

276F The Roles of CASK and Calcium Signaling in Apoptosis-induced Proliferation **Daniela Dominguez** University of Birmingham

277F Invitro Exploration of the Effects of Methanolic Plant Extracts on the Mycelial Inhibition of Corynespora cassiicola of Rubber Leaves (Hevea brasiliensis) **Benjamin Ohiocheoya** Rubber Research Institute of Nigeria

278F Social Modulation of Autophagy in the *Drosophila* Brain **Marta Rozados Barreiro** Duke University

279F 4EHP and NELF-E regulate physiological ATF4 induction, amino acid metabolism, and proteostasis in disease models **Hyung Don Ryoo** NYU Grossman School of Medicine

280F EMS mutagenesis screen to explore mechanisms of the newly identified cell death, erebosis in the *Drosophila* midgut **Rahul Parit** RIKEN Center for Biosystems Dynamics Research (BDR)

281S Unraveling the Impact of Dominant Activating Rac Mutations on Cellular Behaviors: Insights from Drosophila Border Cells **Morgan Smith** University of California, Santa Barbara

282S Elucidating the physiological function of evolutionarily conserved heat shock protein 110 in Drosophila **Beatriz Rios** University of Texas Health Science Center at Houston

283S The Role of Hemocytes in Regeneration Following Necrotic Ablation **Maksym Dankovskyy** Arizona State University

284S PERK prevents rhodopsin degradation and retinal degeneration by inhibiting IRE1-induced autophagy **Ning Zhao** National Institute of Biological Sciences, Beijing

285S Stress granule nucleator Rin localizes to other oocyte RNP granules upon integrated stress response activation in oocytes **Rebecca Glineburg** Chapman University

Chromatin, Epigenetics, and Genomics

286T Unveiling the epigenetic landscape of the *Drosophila melanogaster* histone locus using DiMeLo-seq **Thomas OHaren** Emory University

287T Testing models of insertional bias for a centromere-enriched non-LTR retroelement **Tyler McDermott** University of Connecticut

288T Maintenance of genome function in the absence of histone H3.3 **Jeanne-Marie McPherson** University of North Carolina at Chapel Hill

289T Histone Mutation Results in Mitotic Recombination at Hotspots in Pericentric Heterochromatin **Priscila Santa Rosa** University of North Carolina - Chapel Hill

290T Contribution of Phosphorylation to HP1a Function **James Walts** The University of Alabama at Birmingham

291T Unique and redundant functions of canonical and variant histone residues and their modifying enzymes **Harmony Salzler** UNC Chapel Hill

292T Overlapping Role of m6A Dependent and Independent Genes in Cellular Processes and Alternative Splicing **George Boateng-Sarfo** North Dakota States University

293T Genetic architecture of transposable element-mediated formation of heterochromatin in the euchromatic genome **Kayla Ly** University of California, Irvine

294T High-throughput transposition analysis of hybrid dysgenesis in *Drosophila virilis* and the impact of DNA damage on transposon dynamics **Ekta Mohanty** University of Kansas

295T Spatial interactions between transposable elements and pericentromeric heterochromatin induce trans-allelic epigenetic effects **Yi Gao** University of California, Irvine

296T SET8 and H4K20me1 Control of DNA Replication During Early *Drosophila* Development **Karla Troncoso** University of North Carolina at Chapel Hill

297T Analysis of chromatin modifications at Dmef-2 enhancer during myogenesis **Sara Khadraoui** Kennesaw State University

298T Elucidating a bi-level neuronal function for Tip60 HAT and it's distinct domains at the chromatin and RNA level **Christina Thomas** Drexel University

299F Meiotic nondisjunction in *Blm* mutant *Drosophila* and selective pressures in male progeny **Jayden Youngren** Lewis-Clark State College

300F Contribution of MBT-mediated interpretation of methyl-lysines to the establishment of de novo Polycomb landscapes **Sean Johnsen** University of North Carolina at Chapel Hill

301F Delayed lagging strand synthesis drives asymmetric histone incorporation and promotes progenitor cell reprogramming in the *Drosophila* male germline **Brendon Davis** Johns Hopkins University

302F Knockout of Meiotic P26 in the Drosophila melanogaster brain improves passive avoidance behavior while its overexpression is lethal. **Steven Bradley** Louisiana State University

303F Rethinking the basis of dosage compensation of the Drosophila X chromosome **James Birchler** University of Missouri

304F Identifying chromatin regulators controlling stochastic gene expression in the *Drosophila* eye **Katalina Li** Johns Hopkins University

305F Investigating pharmacologically synthesized Tip60 HAT-selective activators as a potential epigenetic therapy for Alzheimer's and Parkinson's diseases **Gu Gu Nge** Drexel University

306F Sex-dependent Dietary Impacts on the Epigenetic Silencing of Transposable Elements **Hannah Lee** University of California, Irvine

307F Comparative Genomic Analysis of Contig 27 on the Muller F Element of *Drosophila willistoni* **Amrit Singh** University of the Fraser Valley

308F Large-scale chromosome changes in single nuclei of developing *Drosophila* embryos **Akshada Shankar Ganesh** University of Connecticut

309F Histone H4 limits transcription of the histone locus in Drosophila **Kami Ahmad** Fred Hutchinson Cancer Center

310F Deciphering the repressive pathway that controls precision of X chromosome dosage compensation **Kavana Gonur** San Diego State University

311S Off-target piRNA production from D. simulans genes RYBP and PlexinB and their potential for paramutation **Paris Golder** University of Kansas

312S Identification and functional testing of Sperm Nuclear Basic Proteins in the jewel wasp, *Nasonia vitripennis* **Patrick Zhang** Pitzer and Scripps Colleges

313S A selfish B chromosome in the jewel wasp *Nasonia vitripennis* produces a single protein that localizes to the seminal vesicle **Anabhra Singh** Pitzer College and Scripps College

314S Exposure of Eggs and Larvae to Microbial Volatiles Alters Gene Expression in the Heads of Adult *Drosophila* Post Metamorphosis and Development in *Aedes* mosquitoes **Yuqi Ma** University of California, Riverside

315S A Novel HP1a Partner Regulating Heterochromatin and Telomeric Transposons in the Drosophila Germline **Kun Wu** University of California, Riverside

316S Understanding the role of NASP in early embryogenesis in Drosophila **Mohit Das** Vanderbilt University

317S *Drosophila* Y chromosome variation impacts survival in Blm-deficient embryos **Connor Alexander** Lewis-Clark State College

318S Tip60 as a Key Regulator of Alcohol-Induced Epigenetic Changes in *Drosophila* Ventrolateral Neurons **Christian D. Del Valle-Colón** University of Puerto Rico, Río Piedras

319S Quantitative analysis of the impact of local chromatin organization on transcriptional dynamics **Noel Buitrago** University of Pennsylvania

320S GCNA regulates the accumulation of DNA-protein crosslinks at satellite DNA repeats in the Drosophila germline **Anirban Dasgupta** University of Texas Southwestern Medical Center

321S Tip60 as a Key Regulator of PDF Neuropeptide Release in Alcohol-Induced Neuroadaptations **Omaris Y De Pablo-Crespo** University of Puerto Rico - Río Piedras Campus

322S Investigating the role of ORF1 in the transposition of the centromere-enriched retroelement *G2/Jockey-3* **Bianca Planeta** University of Connecticut

323S Investigating the centromere drive model in *Drosophila melanogaster* **Ruiyi Sun** University of Connecticut

Evolution

324T Rapid evolution and the horizontal transfer of transposons in *Drosophila* **Sarah Signor** North Dakota State University

325T Shrew is a young Drosophila specific gene that was shaped by selection for rapid embryonic development into an accelerator of its ancient sibling Twisted gastrulation **Stuart Newfeld** Arizona State University

326T A GEP F Element Project using four *Drosophila* species provides insights into mechanisms of genome size expansion **Timothy Stanek** Rutgers University

327T Doublesex directs the differentiation of a new photoreceptor in the male housefly dorsal eye **Antoine Donati** University of California, San Diego

328T Morphological innovation without gene co-option: the *Drosophila* sex comb evolved via heterochronic and quantitative changes in general cellular processes **Ben Hopkins** University of California, Davis

329T Recapitulating the horizontal transfer of a novel innate immune factor in *Drosophila* **Rebecca Tarnopol** UC Berkeley

330T Transfer RNA gene repertoire expansion in *Drosophila* **Dylan Sosa** University of Chicago

331T Convergent Evolution of Neo-Sex Chromosomes in *Zaprionus* Species **Ching-Ho Chang** Fred Hutchinson Cancer Research Center

332T Adaptive variants underlying melanism in high altitude Drosophila melanogaster are polymorphic in both ancestral and derived populations **John Pool** University of Wisconsin - Madison

333T Characterizing Genetic Variation in Morphological Scaling **Austin Wilcox** University of Illinois at Chicago

334T Impacts of epigenetic silencing of transposable elements on local mutation rates **Yuheng Huang** UC-Irvine

335T Investigating how evolutionary changes in the *nanos* 3' UTR influences its function in translation and localization **Gisselle Hidalgo** Kean University

336T Evolutionary reversal of dominance in color dimorphism in the *Drosophila montium* species group is explained by evolution of phenotypic plasticity **Yuichi Fukutomi** UC Davis

337T Species-specific Acetobacter microbiota influence on Drosophila fitness and host adaptation **Chau-Ti Ting** National Taiwan University

338T Evolutionary dynamics of the nuclear export factor gene family across *Drosophila* genus **Jae Hak Son** Rutgers University

339T Expression level of tandem duplications of the *Adh* gene is not always 2-fold, it depends on which sequences are duplicated **David Loehlin** Williams College

340T Phenotypic and genetic basis of reproductive isolation in recently diverged fruit fly populations **Myron Child** UW Madison

341T Artificial selection in wild-derived *Drosophila* experimental populations and effects on stress and behavioral resistance **Elizabeth Everman** University of Oklahoma

342T Adaptive piRNA pathway tuning tames sex- and lineage-specific selfish genes **Peiwei Chen** Cornell University

343T Mitonuclear genetics of performance traits under OXPHOS complex 1 inhibition reveals pervasive epistasis and genotype-by-environment interactions **David Rand** Brown University

344T Evolution of piRNA clusters in the *Drosophila simulans* ovary. **Prakash Narayanan** North Dakota State University

345F A Category Theory-Based Framework for Modeling Host-Transposable Element Dynamics **Shashank Pritam** North Dakota State University

346F A potential gene model for intralocus sexual conflict resolution by translocation to the Y chromosome in *Drosophila*. **Eduardo Dupim** University of São Paulo

347F "Ultra" long-read sequencing is required for faithful structural variant calling in D. melanogaster **James Hemker** Stanford University

348F Quantifying The Selection Pressure on Structural Variants of Common Fruit Flies **Jen-Yu Wang** University of California, Irvine

349F A Lengthy Affair: The Genetic Basis of Seminal Receptacle Length and its Role in Reproductive Isolation **Amisha Agarwala** Syracuse University

350F Genomics of experimentally-evolved postponed reproduction in *Drosophila melanogaster* **Giovanni Crestani** Oregon State University

351F Teaching a Centromere to Drive **Nicolas Lee** Fred Hutch Cancer Center

352F Experimental evolution of fitness tradeoffs associated with spatially-varying balancing selection in herbivorous drosophilid flies **Diler Haji** University of California, Berkeley

353F The spatiotemporal evolution of apical extracellular matrix (aECM) in the rapidly diversifying Drosophila genitalia. **Catarina Colmatti Bromatti** University of Pittsburgh

354F Pleiotropy or Linkage: The genetic basis of a correlation between color and behavior **Sarah Ruckman** Florida State University

355F A regulatory locus contains both a seasonal and clinal SNP that determines embryonic heat tolerance in *Drosophila melanogaster* **Brent Lockwood** University of Vermont

356F Comparative Genomics and the Evolution of Immune Genes in *Drosophila* **Pankaj Dhakad** University of Edinburgh

357F Genetic consequences of a host-DNA virus interaction: *Drosophila innubila* nudivirus (DiNV) **Taiye Adewumi** University of Kansas

358F Gene duplication captures morph-specific promoter usage in the evolution of aphid wing dimorphisms **Omid Saleh Ziabari** University of Pittsburgh

359F Functional validation of tetrodotoxin and insecticide resistance mutations in *Drosophila* reveals patterns of cross-resistance and fitness trade-offs **Nitin Vincent** University of Notre Dame

360F Contribution of locally adapted variation to adaptive potential in experimental populations of *Drosophila melanogaster* **Jamie Freeman** University of Wisconsin- Madison

361F Examining the impacts of competition on host usage in a generalist herbivore **Kendra Casse** Appalachian State University

362F Characterizing the effects of host preference on a generalist species **Haley Martin** Appalachian State University

363F Aging and metabolomics: Insights from experimentally evolved *Drosophila melanogaster* **David Hubert** Oregon State University

364F The role of behavioral adaptation to high sugar diets in *Drosophila melanogaster* **Austin Vick** Oregon State University

365F Adaptive mechanism to high-sugar diet in *Drosophila melanogaster*: A model for diabetes resistance **Elmira Ahmadian** Oregon State University

366F High-Sugar Diet Effects on Insulin-Producing Cells-Ablated Fly and Genetic and Dietary Interactions in Metabolic Regulation **Yuyan Chen** University of Arkansas Fayetteville

367S The genetic diversity and population structure of locally-adapted chickens (gallus gallus domesticus) from Nigeria **Opeyemi Oladejo** Bowen University, Iwo, Vigeria

368S Accelerating chromosome evolution using the *Drosophila melanogaster* B chromosome **Edward Russell** University of Connecticut

369S Regulation and evolution of a novel gene that specifies a reproductive structure in *Drosophila* **Ashley Bentz** The University of Oklahoma

370S Developmental causes of the evolution of mutation rates **Paco Majic** EMBL Heidelberg

371S Evidence that the *Stellate* array of *Drosophila melanogaster* is an active meiotic drive system **Benjamin McCormick** Cornell University

372S The effects of the post-mating immune response in Drosophila on Female fecundity. **Kross McClinton** Syracuse University

373S Origin story of a Y chromosome **Taylor Conway** University of Kansas

374S Mitonuclear compatibility: How genotype shapes mate selection in *Drosophila melanogaster* **Camille Brown** Brown University

375S Discerning between convergence and shared ancestry in a genital novelty **Christopher Darfoor** University of Pittsburgh

376S Variation in Susceptibility to Glyphosate-Based Herbicide Exposure Among DGRP Lines of *Drosophila* **Kelley Kelley** California State University

377S The role of neuronal miRNAs in regulating behavioral states associated with female reproduction **Preston Simpson** Washington University in St. Louis

378S Ant odors alert flies to bury eggs **Todd Schlenke** University of Arizona

379S Genomic Trajectories of Adaptation: Convergent Experimental Evolution in Drosophila **Kenneth Arnold** University of California, Irvine

380S Exploring the biophysical mechanisms and phenotypic diversity of primordial germ cell specification in *Drosophila* **Chandrashekar Kuyyamudi** Harvard Univeristy

381S Genomic features and evolutionary formation of long-range chromatin loops across five *Drosophila* species **Aiswaryaa Prabaharan** Rutgers, The State University of New Jersey

382S A Novel and Sustainable Approach for the Detection of Various Phytonutrients in an Alternate Insect's Protein by Greener Method. **Divya Singh** Suresh Gyan Vihar University, Jaipur

383S Genetic architecture underlying the courtship song divergence between *Drosophila teissieri* and *D. santomea* **Helena Gifford** University of Pennsylvania

384S Developmental patterns of transposable element expression in the *Drosophila* embryo at single-cell resolution **Katelyn Boese** Cornell University

385S Investigating the Genetic Architecture of Mutation Rate Variability in Drosophila Populations **Arin Shaw** Arizona State University

Immunity and the Microbiome

386T Intake of Indigestible Fiber-Rich Diet Induces Mechanical Stress and Modulates *Drosophila melanogaster* Gut Metabolic Homeostasis and Immunity **Layla Kamareddine** Qatar University

387T A peptide fragment homologous to mammalian C5a derived from the septate junction component Mcr acts as chemoattractant for macrophage recruitment to epithelial wounds **Alessandro Scopelliti** University of Edinburgh

388T Ecdysone and Juvenile Hormone regulate intertwined developmental and innate immune processes **Scott Keith** Cornell University

389T Examining the role of host glycosylation in commensal-host specificity **Andrea Darby** Carnegie Science

390T One Hot Paradox: Investigating the Antiviral Effects of HSP90 Inhibition in *Drosophila melanogaster*: Insights into Heat Shock Response, HSF, and Viral Replication Dynamics **Ella Buhlke** University of Nebraska at Kearney

391T *NinjurinA (NijA)* is necessary for survival following Invertebrate Iridescent Virus 6 (IIV6) infection of adult *Drosophila* **Molly Murphy** University of Massachusetts Chan Medical School

392T Microbiome-Metabolite Composition of Natural Diet in Drosophila's Metabolic Fate **Oluwatobi Fijabi** University of Alabama

393T The inducible expression of *Diedel* by multiple immune signaling pathways **Bao Ho** UMass Chan Medical School

394T Drosophila Mcr is a functional homologue of mammalian complement C5a and operates as a wound induced chemotactic signal to drive inflammatory cell recruitment to sites of sterile tissue damage **Luigi Zechini** University of Edinburgh

395T Young *Drosophila* suggests a downregulation of the IMD pathway following exposure to exercise and infection **Tolulope Kolapo** The University of Alabama

396T The microbiota contributes to seasonal adaptation of *Drosophila melanogaster* **Dean Peterson** Brigham Young University

397T Re-Characterizing the Role of Thor in *Drosophila melanogaster* Immune Dynamics **Kate Browning** Cornell University

398T Surviving the STING of Infection Through TOR **Carly Lam** Columbia University Medical Center

399T The influence of the microbiome on *Drosophila* flight performance **Maria Lovallo** The Pennsylvania State University

400T *Wolbachia* bacterial symbionts protect *Drosophila* hosts against fungal pathogens **Jessamyn Perlmutter** University of Kansas

401T The epithelial sheath acts as a barrier to professional phagocytes in response to apoptosis in the ovary **Max Wertheimer** Boston University

402F Illuminating the non-genetic factors of immune activation **Yu Yang** Boston University

403F *Wolbachia* tissue distributions and effects on components of fitness across divergent *Drosophila* host species **John Statz** The University of Montana

404F Characterization of Metabolomic and Behavioral Changes in Young and Old Drosophila Adults Mono Associated with Probiotic Lactiplantibacillus plantarum **Melanie Reinoso** University of Puerto Rico Rio Piedras

405F Feeding promotes the environmental transmission of an insect endosymbiont **Dylan Shropshire** Lehigh University

406F Characterization of the Nuclear Localization Signal (NLS) of ORF1 of Nora virus **Belle Turk** University of Nebraska at Kearney

407F Effect On Microbiome Composition in the *park*^{25} Mutant Model of Parkinson's Disease **Krista Pearman** Midwestern University

408F Exploring *Drosophila melanogaster* as a Model for Peanut Allergy Research: Immune Pathway Responses and Gene Regulation Insights **Carlos Hernandez** University of Nebraska at Kearney

409F A Potential Role of Lactiplantibacillus plantarum in Modulating behavior via GABA Signaling in Drosophila melanogaster **Angel Alexander Torres-Roman** University of Puerto Rico, Rio Piedras Campus

410F Entomopathogenic nematode infection modifies the *Drosophila melanogaster* larval microbiome **Sreeradha Mallick** The George Washington University

411F Characterization of the Lamellocyte Membrane Lipid Composition **Kristen Latour** Cal State University Fullerton

412F A Genome wide association screen for *D. melanogaster* genes that determine fly preferences for lactic acid bacteria **Andrew Call** Brigham Young University

413F Probing the Chemical Changes in the *Drosophila* Phagosome **Oscar Hernandez** California State University Fullerton

414F What Happens When Flies Eat Their Greens? Exploring diet-driven variation in fly life history traits and microbiota composition **L'Amat Rosales** Brigham Young University

415F Bacterial central metabolism genes mediate *in vitro* interactions between members of the *Drosophila melanogaster* microbiota **Hyrum Pech** Brigham Young University

416S Environment and diet shape the geography-specific Drosophila melanogaster microbiota composition **Rebecca Kreutz** Brigham Young University

417S Investigating the Role of Gut Specific *Relish* Expression in Aging in *Drosophila melanogaster* **Maryam Mukhtarov** University of Houston

418S FlyCAR: A CAR-Macrophage Model in Drosophila melanogaster **Junan Zhu** University of California, Irvine

419S Hemocyte Response during *Drosophila* Ovarian Tumor Growth **Minh Le** Boston University

420S Inside *Drosophila Melanogaster's* Fight to Survive, Only One Move, the Innate Immune System **Destinee Biyoudi-Monthe** George Mason University

421S Role of L-2HG in Drosophila innate immune response **Mandkhai Molomjamts** Indiana University

422S Detection of bacteria through taste receptors primes the cellular immune response through a non-canonical Immune Deficiency Pathway **Alix Najera Mazariegos** The University of British Columbia

423S Using Drosophila Video Tracking to Analyze the Effects of the Microbiota on Activity **Cooper Johnson** Brigham Young University

424S Caught red handed: Parasitoid eggs absorb host lipids **Meagan Ash** University of Arizona

425S Establishing *Drosophila melanogaster* as a Model of Invertebrate Immune Priming **Emily Burke** University of Arizona

426S How do bacteria-dependent dietary temperatures influence the cold-temperature behavior of Drosophila melanogaster? **Chandler Sefcik** Brigham Young University

427S The microbiota's response to adaptive evolution of Drosophila melanogaster life history traits **Zachary Greenspan** University of California, Irvine

428S Treatment with Tetracycline and Rifampicin antibiotics improves survival of Flock House virus infection in young and old *Drosophila melanogaster* **Justin McGee** The University of Alabama

429S Sleep-dependent clearance of brain lipids by peripheral blood cells **Bumsik Cho** University of pennsylvania

430S Deciphering infection mechanisms of contemporary African Zika Virus strains in *Drosophila* midgut **Dani Osman** PIMIT Laboratory

Initiatives in Education and Diversity, Equity, and Inclusion (DEI)

431T The Genomics Education Partnership: A Community of Practice Empowering Faculty to Provide Course-based Undergraduate Research Experiences Authors **Norma Velazquez Ulloa** Lewis and Clark College

432T *Developing Scientists*: An Interinstitutional Developmental Biology CURE and Regional DB Symposium increases student interest in research careers **Mardelle Atkins** Sam Houston State University

433T Innate Immunity System Laboratory Class Activities Using *Drosophila melanogaster* hemocytes **Rebecca Spokony** Baruch College, CUNY

434F Rainbow Networks: Encouraging and retaining LGBTQ+ research trainees in STEMM **Claire Thomas** Penn State University

435F Annotating TWiM Podcast: Interactive Microbiology Learning **Suparna Chatterjee** New Mexico State University

436F Authentic research on the fly: A flexible, student-driven CURE using Drosophila melanogaster **Sarah Clark** Georgia State University

437S Exploring the Impact of Cannabinoids on Ethanol Tolerance, Fertility, and Microbiome Composition in *Drosophila melanogaster*: A C.U.R.E. Approach **Alyssa Vidal** California State University Northridge

438S Gene Annotation and Genomic Analysis of *Insulin-like peptide 3* (*Ilp3*) in *D. busckii*, *D. novamexicana*, and *D. subobscura* **Nick Reeves** Mt. San Jacinto College

439S Integrating Fly CURE into Anatomy and Physiology: Enhancing STEM Access for Underrepresented Students **Zully Villanueva** Western New Mexico University

Models of Human Disease

440T A novel *Drosophila* model of amyloid-β secretion in Alzheimer's disease reveals ferroptotic-like cell death at the earliest stage of disease progression **Rosalind Heron** University of Edinburgh

441T Scully acts through ecdysone for aging-related cognitive decline **Paul Rafael Sabandal** The University of Texas at El Paso

442T Characterization of seizure susceptibility in a *Drosophila* model of KDM5C-associated X-linked intellectual developmental disorder **Bethany Terry** Albert Einstein College of Medicine

443T Use of fluorescent biosensors for the detection and characterization of physiological hydrogen sulfide in *Drosophila melanogaster* **Sunayn Cheku** University of Nebraska at Kearney

444T A drug repurposing screen leads to discovery of small molecule modulators for FAM177A1-related disorder **Katherine Beebe** University of Utah

445T A drug repurposing screen reveals dopamine signaling as a critical pathway underlying potential therapeutics for the rare disease DPAGT1-CDG **Hans Dalton** University of Kansas

446T Use of large-scale *Drosophila* genetic reagents to facilitate human disease research **Oguz Kanca** Baylor College of Medicine

447T Sleep deprivation aggravates impulsivity in *Scully* mutants in an aging-dependent manner **Maya Solis** The University of Texas at El Paso

448T Mutant variant of tRNA processing enzyme impairs motor and cognitive function in *Drosophila* **Saathvika Rajamani** Fordham University

449T Mechanisms of neurofibromin-mediated modulation of metabolic homeostasis **Seth Tomchik** University of Iowa

450T Comparison of phenotypes caused by homozygous and heterozygous *blm* deficiency in Drosophila **Eergul Susamci** University of Arizona

451T Effects of Long-Term Nicotine Exposure on Adult *Drosophila melanogaster* **Avi Strok** Lewis & Clark College

452T Functional analysis and classification of rare genetic variants in *SATB2* using *Drosophila melanogaster* and patient-derived iPS cells **Hirokazu Hashimoto** Baylor College of Medicine

453T Functional studies of missense variants in *ZDHHC15* identified in patients with neurodevelopmental diseases using *Drosophila* **Mei-Chu Huang** Baylor College of Medicine

454T Alterations in morphology and synaptic function identified in a *Drosophila* model of a rare exon duplication in *PHACTR1*. **Jonathan Andrews** Baylor College of Medicine

455T The Developmental and physiological impacts of pathogenic human HTT in the nervous system **Tadros Hana** Middle Tennessee State University

456T Establishment of a *Drosophila* model for a new progeria-lipodystrophy disease caused by *BUD13* **Mikiko Oka** Baylor College of Medicine

457T *Drosophila* models of sporadic and genetic Parkinson's disease **Angeline Claudia Atheby** Delaware State University

458T Metabolism and lifespan of Drosophila melanogaster after smoke exposure regulation following Wnt pathway activation **Liu Yang** Zoological Institute, CAU Kiel

459T The analysis of the humanized Drosophila model of the Orc6 based Meier- Gorlin syndrome mutation reveals an unexpected molecular mechanism **Igor Chesnokov** University of Alabama at Birmingham

460T Microbial mediation of Drosophila lipid metabolism **Joshua Derrick** Johns Hopkins University

461T Different systemic impacts of Aβ42 and Tau revealed by whole-organism snRNA-seq in *Drosophila* **Ye-Jin Park** Baylor College of Medicine

462T Tumor-Invasion Dynamics at the Blood-Brain Barrier during Brain Metastasis **Chaitali Khan** National Institutes of Health

463T Trigger warning: Reward-less mate perception as a trigger of neurodegeneration in a *Drosophila* TDP-43 model **Narmin Mekawy** Stony Brook University

464T How Parkinson's disease moves - assessing extracellular vesicles in *Drosophila melanogaster* **Allison Johnston** Juniata College

465T The influence of Jra misexpression on a *Drosophila* model of MJD **Katie Weispfenning** University of Richmond

466T Expressing disease and non-disease causing Ataxin3 in glial cells of *D. melanogaster*. **Caro Osenga** University of Richmond

467T Mis-regulation of the innate immune response in a *Drosophila* model for MJD **Reese Silberman** University of Richmond

468T Tip 60 expression and co-localization in a *Drosophila* of Machado-Joseph Disease **Sampson Valdez** University of Richmond

469T Characterizing optineurin mutation in *Drosophila* as a model of amyotrophic lateral sclerosis **Mousumee Khan** Wayne State University

470T Tumor induced paraneoplastic renal defects and ascites development **Anindita Barua** Louisiana Cancer Research Center, Tulane University

471T Gut Bacterial Translocation Promotes Tumor-Associated Mortality by Inducing Immune-Activated Renal Damage. **Fei Cong** Tulane University

472T Effect of Toxic Heavy Metal Mixtures on the Genome in *Drosophila* and human cells **Caitlin Clark** CU Boulder

473F Unveiling the role of hippo interactors in glioma progression in *Drosophila* glioma model **Venkata Satya Devi Burugupalli** University of Dayton

474F The effect of a manganese porphyrin compound on brain protein nitration and nitric oxide synthase levels in parkin-null *Drosophila* **Michaela Barber** Midwestern University, Glendale

475F Distinguishing *PEX* gene variant severity for mild, severe, and atypical peroxisome biogenesis disorders in *Drosophila* **Vanessa Gomez** Baylor College of Medicine

476F The Impact of Dietary Interventions on Traumatic Brain Injury Responses in the Adult *Drosophila* CNS **Jesse Rojas** San Diego State University

477F Evaluation of persistent environmental contaminants on conserved markers of survival and mechanisms associated with neural degeneration in *Drosophila* **Jesse Rojas** San Diego State University

478F The tumor-induced host response **Hongcun Bao** Tulane University

479F Altered nociception in a *Drosophila* larvae model of Neurofibromatosis type 1 **Anneke Knauss** University of Iowa

480F Terazosin partially rescues synuclein-related phenotypes in a Drosophila model of Parkinson's disease **Jaidan Marano** Lafayette College

481F Investigating the role of *NLGN3* in autism spectrum disorder and sleep disruptions **Rebekah Townsley** Baylor College of Medicine

482F Toward a molecular understanding of tissue-specific phenotypes in RNA exosome-linked neurodevelopmental disorders **Lauryn Higginson** University of Southern California

483F Phagocytic glia mediate protein aggregate propagation in neurodegenerative diseases **Kathleen Wooster** Rowan University

484F *Drosophila* Models for Charcot-Marie-Tooth Neuropathy Related to Methionyl-tRNA Synthetase. **jung jieun** Korea Research Institute of Bioscience & Biotechnology

485F The Role of PINK1 Modulation in Alzheimer's Disease Progression and Mitochondrial Health in *Drosophila melanogaster* **Giulia Spegiorim** University of Sao Paulo

486F Inhibition of the MEK/ERK pathway suppresses immune overactivation and mitigates TDP-43 toxicity in a *Drosophila* model of ALS **Wenkai Yue** Interdisciplinary Research Center on Biology and Chemistry, Chinese Academy of Sciences

487F Malpighian tubule phenotypes in the *park*^{25} model of Parkinson's disease **Samantha Chagolla** Midwestern University

488F Use of *Drosophila melanogaster* to Investigate Pharmacotherapies for Alcohol Use Disorder **Rebecca Oramas** Brown University

489F Human muscular dystrophy caused by JAG2 (Serrate in Drosophila) mutations **Nam Chul Kim** University of Minnesota

490F Cachexia triggered by microbiota-host interaction **Yuya Sanaki** Life Science Center for Survival Dynamics, TARA, University of Tsukuba

491F *Drosophila* 'kidney-gut' communication: insights from the single-nucleus RNA-sequencing **Jun Xu** CAS Center for Excellence in Molecular Plant Science

492F Sexually dimorphic neurodevelopment, neural activity, behavior and gene expression in Chd1altered Drosophila **Mohammad Farhan** College of Health & Life Sciences

493F Adipose and Cardiac Fatty Acid Transport Protein 1 (FatP1)-mediated Lipid Uptake is required to Maintain Cardiac Function **Giuseppe Trimarchi** Charité Universitätsmedizin

494F MEK inhibition as a potential therapeutic strategy for the non-tumor manifestations of neurofibromatosis type 1 (NF1) **Alex Dyson** Massachusetts General Hospital

495F FUS aggregates lead to synaptic microtubule disruption in an ALS model **Tulika Malik** Lehigh University

496F A drug repurposing screen identifies NSIADs and COX1/2 enzyme inhibition as potential therapies for MAN1B1-CDG, a rare congenital disorder of glycosylation. **Clement Chow** University of Utah

497F The interactome of the microcephaly-associated protein Abnormal Spindle reveals a role for protein phosphatase 2A in regulating brain growth and development **Steven Florez** University of Wyoming

498F Evaluating the Effect of Nicotine Exposure on *Drosophila melanogaster*, a Model for Respiratory Diseases **Rene Toribio** California State University, San Bernardino

499F Nf1 regulates metabolism via developmental effects **Catherine Steele** University of Iowa

500F Modeling a MOPD II patient mutation in Pericentrin reveals tissue-specific centrosome effects **Makenzie Thomas** National Institutes of Health

501F Behavioral correlates of intergenerational trauma in *Drosophila melanogaster* **Alyssa Davis** Georgia State University

502F Functional conservation of the human *ATP1A3* in a *Drosophila* model of Alternating Hemiplegia of Childhood **Jennifer Ogbeta** University of Leeds

503F Tau did you forget? An investigation of native Drosophila tau in an Alzheimer's model **Carlie Epstein** Georgia State University

504F Flies with alleles of TDP-43 that cause familial ALS experience sustained DNA damage after X-ray irradiation. **Samantha Cobos** Stony Brook University

505F Investigating variants associated with *HNRNPH2*-related neurodevelopmental disorder using *Drosophila* models **Melanie Mew** Baylor College of Medicine

506S Assessing the Role of Kefir in Climbing Ability in a Parkinson's Disease Model **Kathryn Jewett** Juniata College

507S Characterizing effects of expressing human CDK19 patient variants in a *Drosophila melanogaster* Cdk8 depleted background **Karampal Grewal** Simon Fraser University

508S Investigating the combined effects of epithelial tumors and hypoxia on whole-body physiology **Shahoon Khan** University of Calgary

509S Effect of Muscle Cell-Specific Glucocerebrosidase Expression on Protein Aggregation and Sleep Regulation in *Drosophila melanogaster* **Regan Farringer** Juniata College

510S The Role of Glial Glucocerebrosidase in Parkinson's Disease Pathogenesis: A Study in *Drosophila* **Stephen kataria** Juniata College

511S Understanding how Zika Virus Targets Glucocerebrosidase (GBA) During Neurodevelopment **Uchechukwu Mgbike** University of Utah

512S An interorgan wound response is hijacked by tumors to promote chronic, lethal intestinal inflammation **Katy Ong** UC Berkeley

513S A *Drosophila* tumor model to unravel how older animals are uniquely challenged by cancer **Jan Mikhale Cajulao** University of California, Berkeley

514S Neuronal expression of the Amyloid α peptide ($A\beta_{17\text{-}42}$) in *Drosophila* has deleterious effects on lifespan, behavior, degeneration, and gene expression and exacerbates the effects of full-length $A\beta_{1\text{-}42}$ **Rebekah Larreynaga** UC Santa Cruz

515S Tethered Fly Electrophysiology Reveals Alterations in Seizure Expression Associated With Dietary ω-3 Fatty Acids in *para*^{Shu}, a *Drosophila* Na_v Channel Gain-of-Function Mutant **Reid Schuback** The University of Alabama

516S Characterizing Alzheimer's in a *Drosophila* Model Carrying Synthetic Mutations of Amyloid Beta (Aβ) **Jordan Sitea** University of California, Santa Cruz

517S Discovery of small molecule modulators for PLP1-related disorders via a drug repurposing screen **Delaney Baratka** University of Utah

518S Differential immune responses may contribute to varying outcomes between a single, severe TBI and a mild, repeated TBI **Daniel Tulchinskiy** Lake Forest College

519S A Drosophila study identifies iPLA2-VIA as potential novel chemoprevention target for HPV-induced cancer **Sagarika Das** University of Oklahoma

520S Assessing Muscle Protein Ubiquitination during Tumor Induced Wasting in *Drosophila melanogaster* **Gabrielle Daughenbaugh** Sam Houston State University

521S Investigating Changes in Activity and Circadian Rhythm in a Drosophila Model of Frontotemporal Dementia **Kendall Eby** Providence College

522S Probing autophagic flux in metastatic cells in the *Drosophila* wing disc **Luz Arvizu** San Jose State University

523S Characterization of Drosophila Amyotrophic Lateral Sclerosis (ALS) Upon Genetic Modification to Stress Granule-Associated Genes **Emily Sarkisian** Brown University

524S Effects of *parkin* and *rosy* on Mortality, Motor Dysfunction, and Malpighian Tubule Stone Formation in Parkinson's Disease Model *Drosophila* **Aaron McMurray** Midwestern University

525S Effects of Restricted a-Synuclein Expression in Subsets of Dopamine Neurons on Neurodegeneration and Locomotion **Trisha Gongalore** Pomona College

526S Transcriptomic analysis identifies muscle-specific mitochondrial and vesicular transport genes as methylmercury toxicity targets in a Drosophila model of Congenital Minamata Disease **Matthew Rand** University of Rochester

527S The role of inflated in aging-associated impulsivity and loss of memory **Ali Ballesteros** The University of Texas El Paso

528S Exploring the role of Sirt6 in the *drosophila melanogaster* in neurodegeneration and the healthy aging brain **Samira Xhaferi** Cleveland State University

529S A drug repurposing screen identifies N-acetyl-L-leucine as a candidate therapeutic for SYNGAP1-related disorder **Haley Tokars** University of Utah

530S The role of the synaptic adhesion molecule *Kekkon5* in Alzheimer's disease and related dementias **Kryssia Villarreal** University of Texas at El Paso

531S *Inflated* Interacts with Hyper Dopamine to Cause Impulsivity **Veronica Ciliberto** University of Texas at El Paso

532S The Human Antimicrobial Peptide, LL-37, Diminishes Aβ42's Effects on Longevity, Behavior, and Gene Expression in a Drosophila Model of Alzheimer's Disease **Miles Maybrun** University of California, Santa Cruz

533S Identification of a conserved functional motif in the Huntington's Disease-associated HTT-HAP40 core complex **Stephen Farmer** University of Texas Health Science Center at Houston

534S Dysfunctional BCAA degradation triggers neuronal damage through disrupted AMPK-mitochondrial axis due to enhanced PP2Ac interaction **Chun-Hong Chen** NHRI

535S Impact of metal exposure on lifespan in *drosophila melanogaster* **Gelila Isayas** University of Maryland, Baltimore County

536S From Bugs to Biomarkers, Investigating Chitinase-Like Proteins in Tube Morphogenesis **Richelle Chen** University of Washington

537S A *Drosophila* model for Uveal Melanoma: identifying genes with a functional role in oncogenic *GNAQ* phenotypes **Emaan Tehseen** The Icahn School of Medicine at Mount Sinai

538S Prophylactically feeding manganese to *Drosophila* confers sex-specific protection from acute ionizing radiation independent of MnSOD2 levels. **Rachel Cox** Uniformed Services University

Neural Circuits and Behavior

539T Establishing Drosophila as a model for sleep disturbances related to FASD **Reza Almassi** San Jose State University

540T Contribution of neurons that express *fruitless* and *Clock* transcription factors to behavioral rhythms and courtship **Michelle Arbeitman** Florida State University

541T Rhythms in structural plasticity of clock neurons are required for circadian behavior **Justin Blau** New York University

542T Multiple mechanisms of action for an extremely painful venom **Lydia Borjon** Indiana University

543T Loosely coupled oscillators as a correlate of behavioral control circuits within the central complex of Drosophila **Saul Garnell** Auckland University of Technology

544T The Effect of Social Experience on Gene Regulation, Neural Activity and Behavior in *Drosophila melanogaster* **Chengcheng Du** Duke University

545T Interrelated insulin-like peptide and diuretic neuron regulate sex-specific aggression in *Drosophila* **Siyuan Yang** McLean Hospital-Harvard Medical School

546T Sublethal effects of agrochemicals on insects at environmentally relevant concentrations **Lautaro Gandara** EMBL

547T Altered Vesicular Acetylcholine Transporter Expression Changes Acetylcholine Exocytosis in *Drosophila* **Rohina Nemat** Delaware State University

548T The cellular and molecular bases of sensory driven quenching of thirst in fruit flies **Anindya Ganguly** University of California, Santa Barbara

549T Molecular Basis of Flavonol Sensing in Fruit Flies **Zixin Lu** University of California, Santa Barbara

550T Serotonergic receptors drive graded presynaptic plasticity of acetylcholine release in Kenyon cells following associative learning **Aaron Stahl** University of Iowa

551T Investigating the Interactions between Metals and Amyloid Precursor Protein-Like (APPL) on Aging-Dependent Locomotor Decline in *Drosophila melanogaster* **Justine Anne Guevarra** University of Maryland Baltimore County

552T Multimodal integration of skylight cues for navigation in the Drosophila central complex **Sharon Su** Columbia University

553T The Neural Basis of Directional Escape in Drosophila Larvae **Abby Wood** Columbia University

554T The effect of social isolation on the dopamine system and behavior through pheromone perception **Lanling Jia** Duke University

555T Understanding Temperature Compensation Using a Transcriptomics Approach **Wanhe Li** Texas A&M University

556F Ionic homeostasis in Astrocyte-like glia regulates olfactory perception **Shreya Mandal** Indian Institute of Technology Kharagpur

557F Chemosensation inhibits cannibalistic behavior in *Drosophila* larvae **Nagisa Matsuda** Hiroshima University

558F Association of a single odor with toxic/bitter food elicits an olfactory aversive conditioning memory in *Drosophila* **Snehasis Majumder** Indian Institute of Technology Kharagpur

559F Modeling chemical induced tissue damage and nociception in *Drosophila* larva through repeated acid exposure **Jaime Arroyo** New Mexico State University

560F Age-related dysregulation of cAMP signaling in *Drosophila* taste circuits **Rose Riley** Florida State University

561F Mechanisms of Capsaicin Tolerance and Sensory Adaptation in TRPV1-Lacking Drosophila melanogaster **Gerardo Flores-Iga** West Virginia State University

562F Understanding the behavioral and transcriptional role of KDM5 in the *Drosophila* mushroom body **Amira Mahoney** Albert Einstein College of Medicine

563F Complete knockout of serotonin transporter (*sert*) in *Drosophila melanogaster* increases baseline sleep, fragments deep sleep length, and enhances starvation resistance. **Marciella Shallomita** Eastern Mennonite University

564F Wingless pathway affects nociceptive sensitivity **Geoffrey Ganter** University of New England

565F Investigating integration of visual information for navigation in the *Drosophila melanogaster* sky compass pathway **Sarita Padukone** Columbia University

566F Variation in Mushroom Body Morphology in Cocaine Preferring Drosophila Genetic Reference Panel Lines **Alp Mete Ummet** Clemson University

567F Characterizing the impact of mating on proboscis extension response in Female *Drosophila melanogaster* **Rebecca Fakunle** Centre College

568F Mechanisms of sleep-associated huddling behavior in *Drosophila melanogaster* **Seth Odell** University of Nevada, Las Vegas

569F A flashing success: resolving the effects of neuromodulators at the active zone level **Jocelyn Bransford** Middle Tennessee State University

570F Glutamate signaling controls dormancy-associated quiescence **Matthew Meiselman** University of Nevada Las Vegas

571F Neural Modulators of Metabolism in *Drosophila melanogaster* **Victoria Campos** University of Nevada Las Vegas

572F Exploring the Behavioral Effects of the Probiotic *Lactiplantibacillus plantarum* in *Drosophila* and the Role of the Intestinal Alpha-4 Nicotinic Acetylcholine Receptor **Geraldine M. Ortiz Sosa** University of Puerto Rico, Rio Piedras

573S Roundup Exposure Decreases Activity of *Drosophila melanogaster* **Katherine Bartels** California State University

574S Orb2's ability to form amyloid instead of its specific structure governs long-lived memory **Kaili Li** Stowers Institute for Medical Research

575S Males use color vision to define the anterior-posterior body axis of courted females **Christian Monroy Hernandez** Washington University in St. Louis

576S The Role of Anchor gene in feeding in a *Drosophila* Knockdown model **Adekemi Sobukunola** University of Maryland Baltimore County

577S The Role of Anchor in Feeding in a Drosophila Knockdown Model **Adekemi Sobukunola** University of Maryland, Baltimore County

578S Arc1 functions in insulin producing cells to regulate sleep **Kaitlyn Pamplona** Florida State University

579S Temporal cohort number, neural composition, and connectivity vary along the *Drosophila* larval body axis **Deeptha Vasudevan** University of Chicago

580S Genetic Analysis of the Moonwalking Descending Neuron (MDN) Circuit in Drosophila melanogaster **Zhehao Zhu** Bucknell University

581S Development of a Single Fly Aversive Learning Assay suitable for use in the classroom. **Amanda Crocker** Middlebury College

582S Sirt6 regulates learning and memory in *Drosophila melanogaster* **Prema Singaravel** Cleveland State University

583S Role of Robo3 in Specific Hemilineages during Pupal Development **Samuel Herman** University of Missouri-Kansas City

584S Exploring alcohol sensitivity and tolerance in *Drosophila*: The crucial role of Tip60 in ventrolateral neurons (LNv) **Angelica Crespo-Rodriguez** University of Puerto Rico, Rio Piedras Campus

585S Genetic Screen for Proprioceptor Morphology and Function. **Dorian Dale** Indiana University

586S miRNA-Mediated Regulation of VGLUT Expression in VPM Neurons Drives Sexually Dimorphic Feeding Behavior **Solange Holman** University of Montana

587S Glutamate signaling controls dormancy-associated quiescence **Jilian Morejon** University of Nevada, Las Vegas

Neural Development and Physiology

588T Unraveling the Molecular Clock of Neurogenesis in Drosophila Medulla Using Live Imaging **Khaled Ben El Kadhi** New York University Abu Dhabi

589T The temporal transcription factor Hunchback functions post-mitotically in descending neurons **Kristen Lee** Institute of Neuroscience

590T Identification of *AANATL-7* expression using the UAS-GAL4 system in *D. melanogaster* to determine where histamine acetylation is occurring *in vivo* **Margaret Cubitt** Grand Valley State University

591T Loss of drosophila GCN1 (CG17514) triggered the malfunction of adult neuronal circuits, which would be independent from the GCN1-GCN2 axis **Hidetaka Katow** NYU Grossman School of Medicine

592T Involvement of Dlg1 in putative AIS protein composition in *Drosophila Melanogaster* **Nat Casson** University of British Columbia

593T A novel role for the piRNA pathway in synaptogenesis through transposon regulation **Peter M'Angale** University of Massachusetts Chan Medical School

594T Testing the Role of Discoidin Domain Receptors in Nociception **Victoria Lopez** Indiana University

595T Evolutionary conservation of midline repulsive signaling by Robo family receptors in flies and mice **Tim Evans** University of Arkansas

596T ELAV/Hu family RNA binding proteins regulate neural mRNA processing, cell fate, and differentiation **Binglong Zhang** MSKCC

597T Investigating Notch's roles in chromatin dynamics and inheritance within the developing *Drosophila* central brain **Jason Palladino** Johns Hopkins University

598T A new null allele of *wit*, encoding a Type II BMP receptor: Lethal phase, NMJ phenotypes, and comparison to existing alleles **Pam Vanderzalm** John Carroll University

599T Deciphering cell-intrinsic versus cell-extrinsic cues guiding neuronal morphology and connectivity **Megan Radler** University of Oregon

600T Investigating Defective Phagocytosis in Draper Deficient *Drosophila* Brains **Cheng Yang (Jason) Shi** Boston University

601T Function of *frazzled* is conserved in insects. **Piyasi Ghosh** University of Arkansas

602T Effects of early-life infection and immune signaling on neuroblast reactivation in *Drosophila* larvae **Omina Nazarzoda** University of Virginia

603T Exploring pH dynamics in stem cell fate regulation **Bernice Lin** University of Montana

604T A Conserved RNA Binding Protein Regulates Lipid Storage and Metabolic Pathways **Jordan Goldy** Emory University

605T DH31 neuropeptide expression in muscle and motor neurons of *Drosophila melanogaster*: effects on protein levels and mitochondrial metabolism **Marylu Mardegan de Lima** University of Sao Paulo

606T Distinct Drosophila Mamo Isoforms in Governing Mushroom Body Neuron Identity **Tsai Chi Hsu** Academia Sinica, Taiwan

607F Modulation of hyperexcitability in the Na_v-channel mutant *para*^{Shu} by dietary omega-3 fatty acids **Victoria Hand** University of Alabama Tuscaloosa

608F A genetic screen of all Drosophila glutamate receptors identifies a new subunit necessary for homeostatic synaptic plasticity **Joshua Martinez** University of Southern California

609F Steroid hormone-dependent glial-neuronal interaction promotes brain development during *Drosophila* metamorphosis **Eisuke Imura** University of California, Riverside

610F The TRIM-NHL RNA-binding protein MEI-P26 modulates the size of Drosophila Type I neuroblast lineages **Yichao Hu** University of Toronto

611F Role of *Deformed* (*Dfd*) and other ANT-C *Hox* genes in CNS metamorphosis: Axonal fasciculation and cell migration in cervical connective formation **Linda Restifo** University of Arizona College of Medicine

612F Conserved progenitor transcription factors are required for the proper development of dorsal and ventral fan shaped body neurons. **Michael Velasquez** University of New Mexico

613F Activity dependent development of larval mechanosensory neurons **Nova Qi** Columbia University

614F Heterochromatic silencing of immune-related genes in glia is required for BBB integrity and normal lifespan in *Drosophila* **Yanshan Fang** SIOC, Chinese Academy of Sciences

615F Investigating how acetylation of lysine 394 impacts axon morphogenesis and microtubule behavior in *Drosophila melanogaster* **Chloe Welch** University of California, San Diego

616F Peptidergic Neuron Function Requires Balanced Lipid Remodeling **Adriana Bibo** University of California San Francisco

617F Linking neuronal identity specification to differentiation using single-cell multiomics **Mehmet Neset Ozel** Stowers Institute

618F Patterns of brain Ferritin expression in the Drosophila divalent cation transporter mutant *Malvolio* **Breanna Leach** Wichita State University

619F USP8 and Prosap Manipulations Lead to Formation of Ectopic Synapses at the Neuromuscular Junctions of Drosophila Larvae **Shreya Singh** University of Maryland Baltimore County

620F Assay to measure neuronal responses to mechanical stimuli in intact larvae **Annie Wang** University of California San Diego

621F The role of endocytosis in Pickpocket ion channel distribution in Drosophila sensory neuron dendrites **Savannah Arabe** University of California San Diego

622F *Bx42* cooperates with *Prospero* to grow the developing brain **Nicole Losurdo** University of Utah

623F Investigating the molecular mechanism of wrapping glia development by the transmembrane proteins Kon-tiki and Integrin in Drosophila peripheral nerves **Zhiheng Luo** University of British Columbia

624F Investigate the underlying mechanism of dendrite degeneration of adult *Drosophila* peripheral sensory neurons during aging **Han-Hsuan Liu** National Health Research Institutes

625S The role of Lasp in muscle development, structure, and function. **Hayden Dalton** Middle Tennessee State University

626S Social Experience Induced Modulation of the Blood-Brain Barrier **Shayna Scott** Duke University

627S Axon Guidance Defects in Robo2 Ig Domain Variants in the *Drosophila* CNS **Elizabeth Magdich** University of Arkansas

628S Impact of Na+/H+ Exchanger Proteins on Glial Function in Brain Development **Isabella Maag** University of Montana

629S Homeodomain transcription factors contribute to neuronal identity in the central complex **Derek Epiney** University of Oregon

630S Characterization of Adiposyn, a possible fat-to-synapse inter-organ factor **Carlie Widdison** University of Utah

631S Projectin regulates the growth and development of Drosophila larval muscle **Collin Clark** MTSU

632S A Better than Basic Understanding of pH: Sodium Proton Exchangers (Nhes) Regulation of Neural Development **Asher Swan Adams** The University of Montana

633S Transcriptional complexity in the insect central complex: single nuclei RNA sequencing of adult brain neurons derived from type 2 neuroblasts **Gonzalo Morales Chaya** University of Oregon

634S Glial expression of ER membrane protein complex subunit 4 (EMC4) plays a role in survival, development, and larval behavior **Inés Riojas** Lake Forest College

635S Neuropile Ensheathing Glia Modulate Seizure Susceptibility of *Drosophila melanogaster* **Sarah Iannone** College of the Holy Cross

636S Identifying targets of the temporal transcription factor Hunchback in postmitotic neurons **Benjamin Brissette** University of Oregon

637S Characterization of genes in the Ddc gene cluster of Drosophila for Dopamine-dependent behaviors **Sandra Watson** Scripps College

638S Evolutionary conservation of Slit-Robo signaling in flies and mice **Savannah Beaupre** University of Arkansas

639S Investigating Locomotor Behavior in *Drosophila Nckx30c* Mutants **Sophia Bourgeois** The University of Alabama

640S Development of Post-embryonic Neural Circuits From a Lineage-based Approach **Marianne Maughan** University of Missouri - Kansas City

641S Temporal Transcription Factors Control Neural Fate Specification through Regulation of Chromatin Accessibility in *Drosophila* Medulla Neuroblasts **Tejus Sreelal** University of Illinois Urbana-Champaign

642S Teneurin-mediated synaptic organization occurs via the cytoskeletal adaptor CAP **Benjamin Seitz** Thomas Jefferson University

Patterning, Morphogenesis, and Organogenesis

643T Impacts of Tissue Structure on Chemoattractant Signaling in the Ovary **Michelle Starz-Gaiano** University of Maryland, Baltimore County

644T Detection of novel short linear motifs in *Drosophila* transcription factors involved in segmentation **Minh Le** University of Maryland

645T Identifying candidate pH-sensitive proteins that regulate tissue growth **Laura Martins** San Jose State University

646T Me31B is required during indirect flight muscle myogenesis in *Drosophila* **Maria Spletter** University of Missouri Kansas City

647T The Osiris family genes regulate the tube maturation process in the *Drosophila* trachea **Niraj Dhakal** Oakland University

648T Exploring the Complexity of the *kayak* Locus in Eye Development **Manuel Alejandro Zúniga García** Universidad Nacional Autónoma de México

649T Characterization of novel *Drosophila* Egf receptor signaling targets with roles in eggshell morphogenesis **Autumn Bullek** Wilkes University

650T Investigating the function of Ecdysone during dorsal closure in Drosophila embryogenesis **Jaeho Lee** Case Western Reserve University

651T Outspread, a myosin phosphatase interacting protein, determines tubular organ dimension **Ji Hoon Kim** Johns Hopkins University

652T Integration of cell cycle control and morphogenetic signaling during *Drosophila* salivary gland development **Jeffrey Matthew** Louisiana State University, LSU

653T gilgamesh, Drosophila casein kinase 1γ, is required for myosin-dependent junction strengthening and epithelial folding **Reina Koran** University of Nevada Las Vegas

654T Genome-wide expression profiling and phenotypic analysis of downstream targets identify the Fox transcription factor Jumeau as a master regulator of cardiac progenitor cell division **Shaad M. Ahmad** Indiana State University

655T Reconstructing the Fox transcription factor-regulated subnetwork that mediates specific cardiac progenitor cell divisions **Shaad M. Ahmad** Indiana State University

656T A bistable toggle switch regulated by Runt transcription factor governs the decision between two muscle cell fates **Jingjing Sun** California Institute of Technology

657T A novel protein Moat prevents ectopic epithelial folding by limiting Bazooka/Par3-dependent adherens junctions **Lingkun Gu** UNLV

658F Gαq Homeostasis is Required for Organ Size Regulation and Proper Timing of Larval to Pupal Metamorphosis in *Drosophila melanogaster* **Maria Unger** University of Notre Dame

659F The Role of Dsx in Sexually Dimorphic Development of Somatic Gonads **Jiaxin Li** Johns Hopkins University

660F Multiple isoforms of RNA-binding protein Bruno1 are required during indirect flight muscle development in Drosophila **Jenna DeCata** University of Missouri-Kansas City

661F Fox transcription factor-mediated morphogenesis of the alary muscles associated with the Drosophila heart. **Shaad Ahmad** Indiana State University

662F Exploring the Role of Signaling Molecules During Posterior Migration of the *Drosophila* Salivary Gland **Ashleigh Shoemaker** Johns Hopkins University School of Medicine

663F More than just a phenotypic marker, *Drop* is involved with the formation of the salivary gland. **Matthew Elliott** Johns Hopkins University

664F The Influence of the Tok Protease and Subsequent Slit Fragments on Heart Development and Function in *Drosophila* **Sahara Harrington** University of Nevada, Reno

665F Shining Light on Calcium-Mediated Morphogenesis: Forward Engineering Organ Development with Optogenetics **Jeremiah Zartman** University of Notre Dame

666F Eicosanoid signaling in *Drosophila melanogaster* **Daiki Fujinaga** University of California, Riverside

667F From neurogenesis to oogenesis: Investigating Inscuteable's role in *Drosophila* oocytes **Sahel Ghasemzadeh** University of Missouri Columbia

668F Unraveling the interplay of SNARE proteins in wing morphogenesis **Mikaela Follmer** University of Colorado - Anschutz Medical Campus

669F Endoplasmic Reticulum Calcium Homeostasis is required for Dpp release and wing patterning in *Drosophila* **Emily Bates** University of Colorado Anschutz Medical Campus

670F Tissue-intrinsic signaling affects spermatogonial niche formation **Ariel Harrington** East Carolina University

671F Tbx1 ortholog *org1* is required to establish testis stem cell niche identity **Patrick Hofe** East Carolina University

672S Morphogen scale invariance does not explain the environmental robustness of *Drosophila* wing pattern **Bhagyashree Ghag** University of Illinois Chicago

673S STIL is specifically expressed and required in the *Drosophila* female germline **charli Wingfield** NIH

674S Defining the function of extracellular matrix proteins in the development of Drosophila genital structures **Daniel Ruiz** California State University – Los Angeles

675S Transmembrane Receptor Plexin A and its Known Ligands Semaphorin 1b and Semaphorin 5c are Required for Proper Tube Elongation in *Drosophila melanogaster* **Haley Parrett** University of Washington

676S Control of cell division orientation by patterned cell-surface receptors during axis elongation **Adam Paré** University of Arkansas

677S Bruno1 isoforms have distinct subcellular localization patterns in developing indirect flight muscle of *Drosophila* **Sienna Ficken** University of Missouri Kansas City

678S Identification of novel *akirin*-interacting loci **Camille Santana** Kennesaw State University

679S Investigating the Function of CG1907 in Larval Tracheal Growth **Alexander Muller** Case Western Reserve University

680S Understanding circular invagination of epithelium using anterior midgut in *Drosophila* **Durlin Valle** University of Nevada - Las Vegas

681S Non-canonical role of septate junctional proteins in border cell migration of Drosophila **Hansaem Gook** Case Western Reserve University

682S Palmitoyltransferases and Golga7 in Fat/Dachsous mediated growth control in Drosophila **Alex Murphy** UW-Madiison

683S *In vitro* Reconstitution of FGF Signaling Demonstrates Differential Activation of Heartless by Homologous FGFs Pyramus and Thisbe **Vincent Stepanik** California Institute of Technology

684S Spatial and temporal expression analysis of patterning and structural pigmentation genes using hybridization chain reaction (HCR) in *Drosophila* pupae **Erick Bayala Rodriguez** University of Michigan

685S Differential expression of the homophilic cell adhesion molecule Echinoid leads to localized actomyosin contractility that drives epithelial morphogenesis. **Matthis Blanchard** McGill University

686S An optogenetic approach to define cytoskeletal contributions to assembly of the testis stem cell niche **Everette Rhymer** East Carolina University

Physiology, Metabolism, and Aging

687T The ubiquitin-conjugating enzyme UBE2D/eff maintains a youthful proteome and ensures protein quality control during aging by sustaining proteasome activity **Fabio Demontis** St. Jude Children's Research Hospital

688T The *Drosophila melanogaster* enzyme Glycerol-3-phosphate dehydrogenase (GPDH1) interacts with Target of rapamycin (Tor) to regulate brain growth. **Shefali Shefali** Indiana University Bloomington

689T Strong GAL4 expression impairs adult fat body function **Scott Keith** Cornell University

690T Con-FLIC and Con-DAM: Platforms for the Concurrent Measurement of Feeding Behaviors, Sleep, and Food Intake at Single-Fly Resolution in *Drosophila melanogaster* **Mubaraq Opoola** University of Louisville

691T Identifying Novel Regulators of Food Consumption through Genome-Wide Association Study and Chemoconnectome Screening in *Drosophila* **Mubaraq Opoola** University of Louisville

692T Roles of the fat body circadian clock in diet restriction mediated changes in sleep and starvation response **Breanna Beard** University of Louisville

693T Adipocyte heterogeneity regulated by the Bithorax Complex and Wnt/Wingless signaling crosstalk in *Drosophila* **Rajitha Udakara Sampath Hemba-Waduge** Tulane University School of Medicine

694T Regulation of metabolic sexual dimorphisms in larvae **Arely Diaz** University of Colorado Anschutz Medical Campus

695T Immediate and long-term gene expression changes in response to exercise **Nicole Riddle** University of Alabama at Birmingham

696T A specialist species of the floridosa group, *Drosophila lutzii*, shown distinctive metabolism and behavior from generalist species of *Drosophila* **Juan Murillo-Maldonado** Universidad Nacional Autónoma de México

697T The Impact of Intestinal Occluding Junction Modulation on Aging and Disease **Anna Salazar** Christopher Newport University

698T *Lamp1* deficiency differentially affects lipid regulation in larval fat bodies and midgut and causes lipid transport defects **Sumit Gautam** Iowa State University

699T Growth by breakdown: glial sphingolipid catabolism fuels brain maturation **John Vaughen** University of California San Francisco

700T The Drosophila Hypoxia-inducible factor 1-alpha is required to establish the larval glycolytic program **Tess Fasteen** Indiana University

701T *Drosophila* as a model for Precision Toxicology **Shannon Smoot** Indiana University

702T Methuselah antagonists targeted to Insulin-producing cells extend health span, in *Drosophila melanogaster* **Ravi Ranjan** California Nothstate University Health Sciences

703T Investigating the molecular mechanisms driving lipid metabolic changes induced by intermittent, time-restricted feeding (iTRF) **Jared Gatto** Columbia University Medical Center

704T The sexually dimorphic role of octopamine receptors in gut-brain communication **Emily Gagliano** University of Montana

705T *Transketolase* interacts with *Scully* for aging-sensitive cognitive decline **Carolyne Chepkosgei** The University of Texas at El Paso

706T Studying ageing as a two-phase process: trans-disciplinary insights from the Smurf phenotype **Michael Rera** CNRS

707T Octopamine: the link between reproduction and exercise response in female *Drosophila* **Annie Backlund** University of Alabama

708T Interrogating the Role of Mitochondria in Thermoregulation/Adaptation in *Drosophila* **Snigdha Gupta** National Heart, Lung, and Blood Institute

709T Mechanistic Characterization of Nephrotic Syndrome Using a *Drosophila* Model **Ying Liu** Harvard Medical School

710F Gene-by-Environment Analysis of Sleep Deprivation on Dietary Choice and Water Consumption in *Drosophila* **Jhilam Dasgupta** The University of Alabama

711F cAMP-mediated signaling in *Drosophila melanogaster*: a key regulator of muscle integrity and a potential therapeutic target for muscle atrophy **Felipe Berti Valer** University of São Paulo

712F Impaired Glycolysis and Bioenergetic Reprogramming in Models of Tauopathy and Frontotemporal Dementia **Anwar Nakhla** Rutgers University Newark

713F A nutrient-responsive Hugin-PK2 hormonal circuit regulates AKH secretion and metabolic homeostasis in female *Drosophila* **Usama Saeed** University of Copenhagen

714F Mitochondrial alternative oxidase-driven accelerated growth and development in *Drosophila melanogaster* **Marcos Oliveira** Universidade Estadual Paulista

715F Polyunsaturated fatty acids stimulate immunity and eicosanoid production in *Drosophila melanogaster* **Pakeeza Azizpor** University of California, Riverside

716F Non-olfactory expression of olfactory receptors in *Drosophila* **Yumiko Ukita** Graduate School of Integrated Sciences for Life, Hiroshima University, Japan

717F Sex differences in the *Drosophila* larval fat body **Celena Cherian** University of British Columbia

718F Elucidating the Role of Mitochondrial Pyrophosphatase in Sudden Cardiac Death Using Drosophila Models **Min Li** National Heart, Lung, and Blood Institute

720F Investigating a developmentally crucial adipose tissue-derived factor in regulating nutritional homeostasis in *Drosophila melanogaster* **Anindita Rao** Indian Institute of Science Education and Research, Thiruvananthapuram, Kerala

721F Maternal Diet Shapes Embryo Development and Offspring Phenotype in *Drosophila melanogaster* **Krittika Sudhakar** Van Andel Institute

722F ERR and HSF cooperatively regulate cellular metabolism **Yuan Feng** Indiana University

723F Characterization of visual phenotypes of insulin receptor hypomorphs in *Drosophila melanogaster* **Luis Fernando Medina-Perez** Universidad Nacional Autónoma de México

724F Gene network-based approaches to understand aging and lifespan from *D. melanogaster* **Savandara Besse** Institut Jacques Monod

726F Exploring the impact of antioxidant-rich diets on healthspan using *Drosophila melanogaster* **Moumita Chakraborty** Oregon State University

727F Lipase mediated gut-brain communication regulates insulin secretion in Drosophila **Abhilasha Kandahalli Venkataranga Nayaka** National Cancer Institute

728F Effects of exercise on starvation-selected *Drosophila melanogaster* **Katrina Pinili** University of Nevada-Las Vegas

729F Just Fly… Unless You Broke Your Ankle2! **Miranda Dietze** University of Utah

730F Amino acids exert a suppressive effect on erebosis through ammonia generation in the *Drosophila* midgut. **Yukana Nakamura** RIKEN BDR

731F The glycolytic investment phase plays a critical role in metabolic cross-talk and nutrient utilization **Yusei Miura** RIKEN BDR

732F Echoes of Stress: Acoustic Modulation of Ecdysteroid Signaling in *Drosophila melanogaster* **Jaelyn Darden** Arizona State University

733F Sex-Dependent Metabolic Shifts, Enzyme Expression, and Heart Function Alterations in *Nepl15^{KO} Drosophila* **Shahira Arzoo** Texas Tech University

734S The effect of Centella asiatica hot water extract on neuroinflammatory responses in aging Drosophila melanogaster **Gavin Day** The University of Alabama

735S Metabolic regulation during the oocyte-to-embryo transition **Misato Takagishi** Tokyo Metropolitan University

736S Dissecting Rapamycin-sensitivity across diverse genetic backgrounds of Drosophila melanogaster **Sahiti Peddibhotla** University of Washington

737S RNAi of the electron transport chain in glutamate neurons increases sleep, decreases locomotor activity, and extends life span **Abigail Forrest** Eastern Mennonite University

738S Sex-specific effects of Superoxide Dismutase 1 knockdown on healthspan and lifespan **Denise Horner** University of Alabama at Birmingham

739S Effects of temperature and age on energetics of starvation-selected *Drosophila melanogaster* **Elena DeLaTorre** University of Nevada, Las Vegas

740S UDP-Glycosyltransferase UGT35B1 alters the response to nicotine in *Drosophila melanogaster* **Luke Pfannenstiel** Cornell University

741S Post-translational regulation of Pcyt1 to support phospholipid synthesis during the immune response in *Drosophila*. **Elizabeth Van Gorder** The University of Virginia

742S Blue Light Exposure and Aging: Metabolic and Genetic Disruptions in *Drosophila melanogaster* **Jun Yang** Oregon State University

743S A neurodegenerative phenotype in survivors of Blm-deficient development in *Drosophila melanogaster* **Ava Hasenoehrl** Lewis-Clark State College

744S Defining the function of the GATOR2 complex in the regulation of TORC1 signaling **Chun-Yuan Ting** NICHD, NIH

745S Metabolic dysfunction following Blm-deficient development in *Drosophila melanogaster* **Abigail Brown** Lewis-Clark State College

746S Investigating the impacts of intestinal Snakeskin Knockdown on Protein Aggregation in Drosophila **Christina Richardson** Christopher Newport University

747S Identifying and characterizing Curcumin as a natural compound that promotes longevity and healthspan in *Drosophila melanogaster* **Naomi Z Serrano Colón** University of Puerto Rico, Río Piedras campus

748S Comparing the effects of continuous vs. intermittent hypoxia provides genetics insights in *Drosophila* **Miled A. Maisonet Nieves** University of Alabama Tuscaloosa

749S Characterizing the molecular impact of social defeat on the male *Drosophila* midgut: A transcriptomic and proteomic approach **Audrey Parkey** University of Montana

750S Strengthening Gut Barrier Integrity through Overexpressing Snakeskin **Curtis Patton** Christopher Newport University

751S Investigating the role of Sirt6 in protein translation and proteostasis during aging. **Roja Sharma** Cleveland State University

752S Translator Functional analysis of the cardiogenic roles of *spalt major* and *spalt-related*, *Drosophila* orthologs of human zinc finger transcription factor-encoding genes associated with congenital heart defects **Mofazzal Karim Sabbir** Indiana State University

753S The transcription factor Jim regulates lifespan and lipid metabolism in *Drosophila melanogaster* **Jackson Taylor** Cleveland State University

754S The Fire Gene Complex is Mediating Iron Absorption in *Drosophila melanogaster* **Mayen Kalu** University of Alberta

755S Transcriptomic effects and biological consequences of reducing DNA Polymerase α during stress and aging in *Drosophila* **Logan Wallace Shepard** Johns Hopkins University

756S Effects of smoking and obesity on respiratory and organismal health across generations **Ann-Cathrin Hofacker** Christian-Albrechts-University Kiel, Germany

757S Importance of hormonal regulation in the intestinal tract of flies **Stina Bettendorf** Christian-Albrechts-University Kiel, Germany

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758T Defining Activities of the KDM5 C-terminus Essential to Development and Viability **Melissa Castiglione** Albert Einstein College of Medicine

759T Nutrient-dependent regulation of the Drosophila melanogaster Estrogen-Related Receptor (ERR) **Sophie Fleck** Indiana University Bloomington

760T Mammalian OVO-Like Transcription Factors Rescue Drosophila OVO at Both the Phenotypic and Transcriptional Levels in the Female Germline **Leif Benner** National Institutes of Health

761T Transcriptional co-repressor Atrophin regulates Hippo pathway target genes **Deimante Mikalauskaite** Waksman Institute, Rutgers University

762T Hippo Signaling role in *Drosophila melanogaster* cuticle pigmentation and dopamine metabolism **Shelley Gibson** Baylor College of Medicine

763T Investigating factors and interactions that coordinate histone gene expression **Casey Schmidt** Lafayette College

764T Natural variation in regulation of sexually dimorphic gene expression by the insulin signaling pathway in *Drosophila melanogaster* **Nafiul Huda** Auburn University

765T Identification of novel target genes and binding sites of NF-kB homologs Dif and dorsal in *Drosophila* larval fat bodies **Miyuki Suzawa** University of Virginia

766T Exploring the functional limits and evolutionary patterns of shadow enhancers versus single enhancers **Jillian Ness** Boston University

767T Ribosome biogenesis: a new frontier in understanding the function of ribonucleoprotein Clueless in Drosophila **Aditya Sen** Uniformed Services University

768T Coordinating stereotyped and stochastic patterns in the *Drosophila* eye **Alison Ordway** Johns Hopkins University

769T GAGA Factor affinity for chromatin influences mitotic retention and gene expression in the early embryo **Annemarie Branks** University of Wisconsin-Madison

770T Developmental and Cell-type Specific Histone Gene Expression Patterns **Sierra Falcone** Emory University

771T Comparing mechanisms of histone locus body (HLB) initiation and maintenance **Nicole Roos** Emory University

772T Transcriptional Regulation of Stochastic Cell Fate Specification in the *Drosophila* eye **Emma Steinson** Johns Hopkins University

773T *Cis*-element redundancy in *Drosophila melanogaster*. **Anthony Percival-Smith** Univ Western Ontario

774T Segregation Distorter and the Regulation of Satellite DNAs **Logan Edvalson** University of Rochester

775F The logic of transcriptional control in mitochondrial biogenesis **Fan Zhang** National Institutes of Health

776F Relative enhancer-promoter configuration tunes transcriptional kinetics by modulating stability of the active state **Emilia Leyes Porello** University of Pennsylvania

777F *trithorax (trx)* gene regulation of cardiac *Hox* gene expression and anterior-posterior patterning of the *Drosophila* heart tube **Sumaiya Islam** Indiana State University

778F Exploring the Role of miRNAs in Craniofacial Syndromes: A Genome-Wide Approach Using *Drosophila* Models **Manivannan Subramanian** University of Dayton

779F Role of evolutionary conserved MicroRNA-190 in birth eye defects **Sunanda Yogi** University of Dayton

780F Spatiotemporal Regulation of Early Neurodevelopmental Gene Expression in *Drosophila* Using Single-Cell Multiome Sequencing **Priyanshi Borad** The University of Texas at Arlington

781F Analysis of cis-regulatory sequences from the midline locus reveals a bifunctional regulatory element that is directly regulated by BMP signaling and mediates non-additive interactions with an adjacent enhancer. **Laura Nilson** McGill University

782F Understanding the gene regulation dynamics in embryonic heart development **Shiva Abbasi** The University of Texas at Arlington

783F Compartmentalized alternative splicing of *Down Syndrome Cell Adhesion Molecule* (*Dscam*) gene in the brain is conserved between *Drosophila* and honey bees **Anna Lassota** University of Birmingham

784F Investigation of the Jak-Stat Pathway **Hanna Landguth** Huntsman Cancer Institute

785F Mito-Nuclear Signals in Mitochondrial Biogenesis and Cellular Stress Responses **Shane Grele** National Institutes of Health

786F Pathological Contributions of Abnormal tRNA-derived Fragment Populations **Lucia Vilchez** Fordham University

787F *Polycomb (Pc)* and *Pc Group (PcG)* genes repress *trithorax (trx)*-mediated *Hox* expression and cardiac patterning within the *Drosophila* heart tube. **Md Sayeed Abu Rayhan** Indiana State University

788F Bruno 1 isoform-specific function in D. melanogaster indirect flight muscle (IFM) **Aaron Morgan** University of Missouri Kansas City

789F The Role of Heat Shock Protein 70 (HSP70) in Stress Adaptation and Environmental Resilience of Catfish **Faith Ayoade** Bowen University, Nigeria

790F Transcription of OVO target genes are dependent on OVO binding and can overcome repressive heterochromatin **Lorielle Raab** National Institutes of Health

791S Zelda as a Pioneer: Coordinated Activation of Minor-wave Gene Pair **Ram Wagle** New York University

792S Identification of a candidate *akirin* enhancer sequence **Alyssa DeSantis** Kennesaw State University

793S Determining the role of Myc in *Drosophila* histone gene expression **Juliana Christie** Lafayette College

794S Uncovering Sage's Collaborative Role in Salivary Gland Gene Regulation **Nathaniel Laughner** Johns Hopkins University

795S Exploring Overlapping Cis-Regulatory Elements in the Regulation of *ftz* and *Scr* in *Drosophila melanogaster* **Kristen Au** University of Maryland

796S The regulation and physiological role of transcription factor REPTOR in *Drosophila* fat bodies **Yuwei Sun** Harvard Medical School

797S Identifying Roles for Chromatin Regulators in Stochastic Gene Expression During *Drosophila* Eye Development **Marina Curchitser** Johns Hopkins University

798S Study of Dual-Function Transcription Factor Runt in *Drosophila melanogaster* Early Embryos **Isaryhia Rodriguez** California Institute of Technology

799S Cell Reintegration in the *Drosophila* Follicular Epithelium: Exploring Non-Neural Roles of Neuron Development Transcription Factors **Evan Ost** University of Missouri

800S How temperature affects gene expression to maintain phenotypic robustness? **Genoveva Guerrero Jiménez** CABD

801S Temporal Control of Neurogenesis in Drosophila Development **Yunchong Zhao** UC San Diego

802S Computational analysis of nuclear organization using RD-SPRITE to identify sex-specific three-dimensional DNA/RNA contacts **Megan Carlson** Brown University

803S Modelling the Complete Enhancer Landscape of the Adult Fruit Fly **Eren Can Eksi** KU Leuven

804S Investigating the role of Rusty in Tansferrin-mediated iron delivery **Hila Maleki** University of Alberta

805S Determining the localization and function of centromere-derived transcripts in *Drosophila melanogaster* **Maddy O'Connor** University of Connecticut

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806T Role for Moesin in the germline of the developing egg chamber **Lindsay Lewellyn** Butler University

807T Specialized translational machinery is required for spermatogenesis in *Drosophila melanogaster* **Brook Falk** University of Toronto

808T Female germ cell identity depends on an X-linked H3K9me3 mini-silencing domain **Helen Salz** Case Western Reserve University

809T Characterization of the role of Phosducin-Like Protein 3 in gametogenesis **Jennifer Mierisch** Loyola University Chicago

810T Identifying Meiotic Proteome via TurboID-based Proximity Labeling **Oscar Bautista** Case Western Reserve University

811T Investigating the role of female-derived sperm-associated proteins in fertility and reproduction **Melissa Mychalczuk** Cornell University

812T Uncovering the mechanisms of sterility caused by *me31B* gene mutations through multi-omics profiling **Ming Gao** Indiana University Northwest

813T The N-terminal domain and QAHR motif of Me31B are needed for *Drosophila* germ cell formation **Ming Gao** Indiana University Northwest

814T Characterizing the composition and morphology of the germ plasm in the wasp *Nasonia vitripennis* **Allie Kemph** University of Illinois at Chicago

815T Identification of a Potential New Protein Required for Proper Drosophila Meiotic Double-Strand Break Formation **Bowen Man** Case Western Reserve University

816T The interplay of the gut microbiome and diet on oogenesis **Taylar Mouton** Johns Hopkins University

817T Investigating how germline sexual identity controls sex-specific gene expression **Harrison Curnutte** Johns Hopkins University

818T A novel network of BTB-DBD proteins controls sex-specific development of the *Drosophila* gonad **Samantha Goetting** Johns Hopkins University

819T The Fluorescent Ubiquitination-based Tribbles Turnover Indicator (FUTTI) reveals sites of Trbl activity in tissue **Shima Shayestehpour** UMKC

820T The RNA-binding protein Syp mediates translational repression of a cohort of spermiogenesis transcripts by binding to their 5'UTRs **Catherine Baker** Stanford University School of Medicine

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822T Utilizing Single-Cell Mass Spectrometry Methods to Quantitatively Profile Egg Development in *Drosophila Melanogaster* **Merin Rixen** UCLA

823T Characterization of testis-specific sugar transport and glycolysis genes in *Drosophila melanogaster* **Mark Hiller** Goucher College

824T Primordial germ cell migration requires lipid-mediated autophagy **Marcus Kilwein** Princeton University

825F Investigating kinetochore – microtubule attachments and chromosome movement in *Drosophila* Meiosis **Madeline Terry** Rutgers University

826F The Use of *Drosophila* Fecundity Measurements as a New Approach Methodology to Identify Reproductive Toxicants **Keezean Paguio** San Francisco State University

827F Regulation of spermatogenesis by Notch signaling. **Emma O'Flaherty** Loyola University Chicago

828F The *Drosophila melanogaster* TENT5 homolog is required for individualization of spermatids during spermatogenesis **Abdulqater Al-Nouman** New Mexico State University

829F Regulation of spermatogenesis by the E3 ligase Mindbomb2 and Combover **Carihann Dominicci-Cotto** Albert Einstein College of Medicine

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831F Mei-P26: The Germ Cell Gatekeeper that even a Western diet can't ignore **Shallinie Thangadurai** Louisiana State University

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833F Phenocopying the spermatid individualization phenotype of *mulet* by ectopic germline expression of Tubulin-folding Cofactor E (TBCE) **James Fabrizio** University of Mount Saint Vincent

834F Discovering Novel Meiosis Mediating Genes in *Drosophila melanogaster* **Diya Surray** Rutgers University

835F Lipid production in early germ cells maintain oocyte quality during *Drosophila* oogenesis **Bhawana Maurya** Carnegie Institution for Sciences

836F Orthologs of an essential, lineage-specific spermatogenesis gene vary in their capacities for function and subcellular localization in *D. melanogaster* **Prajal Patel** College of the Holy Cross

837F Lagging strand DNA polymerases regulate reproductive potential in *Drosophila* Germline **Yijun Liao** Johns Hopkins University

838F The role of Cpsf5 and Cpsf6 in maintaining germline stem cells and regulating oogenesis of *Drosophila* **Yu-Te Lan** National Yang Ming Chiao Tung University

839F Evaluating Directional Cues That Affect Migratory Preference In Border Cell Migration **Elana Frazier** University of Maryland, Baltimore County

840F Juvenile hormone signaling is sex-specific and highly dynamic throughout gonad development **Krystal Goyins** University of Texas at San Antonio

841F Ovarian germ cells use EcR to stimulate timely cyst packaging **Elizabeth Ables** East Carolina University

842F Subcellular Localization of Vacuolar ATPase During Ovarian Cell Death in *Drosophila melanogaster* **Logan Tohline** Boston University

843F The neurodegeneration gene *iPLA2-VIA* is required in GABAergic neurons for mitochondrial maintenance in the *Drosophila melanogaster* female germline **Aryeh Levenbrown** Yeshiva University

844S Characterizing the effects of the overexpression of Eip75B in *Drosophila* **Allison Simmons** East Carolina University

845S Characterization of *CG34168 i*n fly wing and sperm development **Karah Mayer** Arizona State University

846S Abnormal crossover patterning in flies deficient in an X chromosome boundary site **Ilan Socolovsky-Hull** University of North Carolina at Chapel Hill

847S Mitochondria-translation axis promotes epigenetic silencing of germ cell genes to promote transition of germ cells to an oocyte during Drosophila **Anupriya Ramamoorthy** Icahn School of Medicine at Mount Sinai

848S Phospholipase C 21C is required for Primordial Germ Cell migration **Calli Raver** The University of Texas at San Antonio

849S Investigating the Impact of I element Activation on Meiotic Recombination **Diane Nguyen** University of Kansas

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852S Development of High Throughput Cloning Strategies in *Drosophila melanogaster* to Investigate Reproductive Gene Function **Samantha Valeiron** Syracuse University

853S Investigating How Oocyte Age Impacts B Chromosome Transmission in *Drosophila melanogaster* **Annette St Jacques** University Of Connecticut

854S Acetyl-CoA Carboxylase-Mediated Lipid Metabolism Determinates Oocytes by Maintaining Proper TOR Signaling Levels **Hwei-Jan Hsu** Academia Sinica

855S A de novo gene functioning in spermatogenesis **Bing-Jun Wang** The Rockefeller University

856S Structure-guided homology detection identifies putative functional roles for proteins with domains of unknown function in the *Drosophila* male germline **Kendall Green** University of Texas at San Antonio

857S Identifying novel components in spectrosome/fusome and their functions in *Drosophila* oogenesis **Yiming Mao** Johns Hopkins University

858S The *hsrω* transcripts regulate ovulation through TBPH in *Drosophila* **RIMA SAHA** West Virginia State University

859S The roles of PGD_2 and its synthase GstS1 in *Drosophila* eggshell development **Jie Li** University of Iowa

860S Bourbon and Mycbp function with Otu to promote Sxl protein expression in the Drosophila female germline **Meera Gangasani** UT Southwestern

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861T Candidate based screen to identify upstream G protein coupled receptors tasked with mediating Ca^{2+} influx in the disseminating *Ras*^{V12}-expressing tumor cells **Izabella Thomas** California State University Long Beach

862T Compromising Lagging-strand DNA Polymerase alpha Enhances Fly Midgut Stem Cell Regeneration In Response to Chemical Damage **Yingshan Bi** Johns Hopkins University

863T Elucidating the role of multiple feedback loops in regulating germline stem cell decisions **Razeen Shaikh** Texas A&M University

864T ABC Transporter genes are required for maintenance of the *Drosophila* male germline stem cells **Judy Leatherman** University of Northern Colorado

865T Identifying cellular and molecular mediators of germline stem cell regeneration in the *Drosophila* testis **Jasmine Grey** Johns Hopkins University School of Medicine

866T Tdrd5l promotes male identity in germline stem cells **Caitlin Pozmanter** Johns Hopkins University

867T Arginine kinase, a regulator of energy metabolism, controls the growth of the flight muscles **Maria Paula Zappia** University of Illinois at Chicago

868T Assessment of heterogeneity within the *Drosophila* germline stem cell niche **Jennifer Viveiros** Johns Hopkins School of Medicine

869T ESCRTs mediate Notch signaling in the testis stem cell niche **Mara Grace** Johns Hopkins University

870F Somatic ring canals contribute to the regulation of proliferation and differentiation in the ovarian follicle stem cell lineage **Cristy Mendoza** UCSF

871F Detailing the functions of Cytokine/JAK/STAT signaling during Drosophila midgut regeneration **Xiaoyu Kang** Huntsman Cancer Institute

872F Transcriptional co-conspirators: Tai and Yki cooperate in intestinal homeostasis **Victoria Placentra** Emory University

873F Ionization Radiation-Induced Cell Fate Change and Translocation in *Drosophila melanogaster* Wing Disc **Michael Shiferaw** University of Colorado, Boulder

874F Characterization of regenerative response in Drosophila limb activated by nutrient signals **Yutian Li** California Institute of Technology

875F Genetic Screen to Identify Metabolic Factors Involved in Regulating Germline Stem Cells Development **Dayeong Yoon** Hong Kong University of Science and Technology

876F LncRNA-mediated regulatory axis of Lysine-specific demethylase 1 impacts germline stem cell differentiation during fly oogenesis **Ming-Chia Lee** National Yang Ming Chiao Tung University

877F Screening Cell Adhesion Molecules for Roles in Dendrite Regeneration **Mia Brantley** University of California, Irvine

878F Adult *D. melanogaster* show age-dependent decline in dendrite regeneration **Rostislav Brichko** University of California, Irvine

879F The self-repressive zinc finger transcription factor Chronophage regulates intestinal stem cell proliferation and differentiation **Siamak Redhai** DKFZ

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881S Degradation of Mitochondrial Cyclin E is Sufficient for Entry Into Stem Cell Quiescence **Miriam Gonzaga** University of Washington

882S Epithelial cell fusion is required for tissue repair following UV-A irradiation **Lillie Mitchell** Boston College

883S Factors Required for Nuclear Pore Complex Rejuvenation during Drosophila Oogenesis **Tram Nguyen** San Diego State University

884S Regulation of Intestinal Stem Cells and Longevity by the Nuclear Envelope Protein Klaroid (Koi) **Ithan Cano** California State University Northridge

885S Stem cells regulate the size of the niche during stem cell loss and replacement **Ellen Ward** University of Washington

886S Deciphering the regulation of the replicative DNA polymerases in Drosophila male germline stem cells **Emma Troisi** Johns Hopkins University

887S Effects of hypoxia-reoxygenation on intestinal homeostasis in *Drosophila* **Prajakta Bodkhe** University Of Calgary

888S Numb provides a fail-safe mechanism for intestinal stem cell self-renewal in adult Drosophila midgut. **Mengjie Li** UTSW

889S Genetic induction of copulatory wounding in fruit flies **Sophie Jalkut** Boston College

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890T Micro-C: A Powerful Tool to Study 3D Genome Organization Across Diverse Fly Tissues **Xiao Li** Princeton University

891T Transgenic sensors reveal compartment-specific effects of aggregation-prone proteins on subcellular proteostasis during aging **Fabio Demontis** St. Jude Children's Research Hospital

892T A multi-omic protocol to profile chromatin accessibility, whole transcriptome and proteome in fly brains **Siyuan Feng** University of Wisconsin Madison

893T A high-throughput recording platform and data analysis pipeline for Drosophila screening **Ryan O'Neill** National Heart, Lung, and Blood Institute, NIH

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897T Expanding the Fourth Chromosome Resource project: CRISPR-induced mutations for clonal analysis of fourth chromosome genes **Brandon Weasner** Indiana University

898T New TRiP resources for gene expression and protein detection **Jonathan Zirin** Harvard Medical School

899T Drosophila Laboratory Pangenome Database: A collection of reference genome assemblies of popular *D. melanogaster* laboratory strains **Trevor Millar** Texas A&M University

900T A self-eliminating allelic-drive reverses insecticide resistance in *Drosophila* leaving no transgene in the population **Ankush Auradkar** University of California, San Diego

901F Functional characterization of species-specific neonicotinoid response using chimeric nicotinic acetylcholine receptor (nAChR) subunits in a *Drosophila* model **Anna Lassota** University of Birmingham

902F An efficient and universal single-cell transcriptomic analysis framework for cell-type-specific labeling and manipulation **Yen-Chung Chen** New York University

903F Harnessing Truncated gRNA (tgRNA) Targeting the Cas9 Promoter to Enhance CRISPR-Based Homing Gene Drive Performance **Lei Yang** University of California, San Diego

904F Deterministic Genetic Barcoding for Multiplexed Behavioral and Single-Cell Transcriptomic Studies **Lindsey O'Brien** University of Minnesota

905F Drosophila three-dimensional cell cultures **Daniel Mariyappa** Indiana University

906F Predictive generation of type-specific enhancer-Gal4 drivers for developing neurons **Rose Coyne** Stowers Institute for Medical Research

907F Applying Deep Learning Models to Derive Pose Estimation for Behavioral Analysis **Elizabeth Miller** Georgia State University

908F Oracle, a High Throughput Data Aggregation and *in silico* Analysis Pipeline **Jacie Cheng** Cell and Developmental Biology Center, National Heart, Lung, and Blood Institute, National Institutes of Health

909F Proteomic mapping of organ secretomes using in vivo proximity labeling **Justin Bosch** University of Utah

910F A *Drosophila* holidic diet optimised for growth and development **Sebastian Sorge** The Francis Crick Institute

911F Enhancer scanning mutagenesis of the *apterous* regulatory region **Daryl Gohl** University of Minnesota

912S A novel CRISPR/Cas9 toolkit for tissue-specific mutagenesis in Drosophila **Elizabeth Loxterkamp** University of Southern California

913S A template for aligning images of the larval ventral nerve cord **Peter Newstein** University of Oregon

914S Genome-wide CRISPR Screening Reveals Novel Regulators of Key Signaling Pathways **Zhongjie Zhang** Harvard Medical School

915S CRISPR-mediated allelic correction of Cystic Fibrosis mutations in *Drosophila* using the homologous chromosome as repair template (HTR) **Matthew Le Roy** University of California San Diego

916S Genome wide elucidation of cis-regulatory elements and gene regulation in fly aging and pro-longevity **Bo Sun** Baylor College of Medicine

917S Auxin-Inducible Degron Mediated Tissue Specific Degradation of Endogenous Proteins in Drosophila **Trisha Mynampati** University of California, Berkeley

918S Standardizing and Streamlining Drosophila melanogaster meta-analysis with MetaAtlas **Andrew Gillen** University of Glasgow

919S DRSC Bioinformatics: New and improved online resources for *Drosophila* research **Mujeeb Qadiri** Harvard Medical School

920S Are Two Cells Better Than One? TubAtlas: A Single-Nuclei Gene Expression Map of the Insect Renal System **Karen McLuskey** University of Glasgow

921S The Ommochrome pigmentation pathway: a case study for using metabolomics with transcriptomics **Sue Krause** University of Glasgow

922S Transgenic fluorescent tools at the Bloomington Drosophila Stock Center **Xiangzhong Zheng** Indiana University

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923T Ecdysone Signaling and Lipid Metabolism in Tuberous Sclerosis Complex (TSC) through Oenocyte Regulation **Kerui Huang** Harvard Medical School

924T Nazo, the Drosophila homolog of the NBIA-mutated protein – c19orf12, is an ER associated protein required for triglyceride homeostasis **Sreejith Perinthottathil** Eastern New Mexico University

925T Delayed developmental time prolongs lifespan through inactivation of developmental STING-NF-κB signaling in Drosophila **Ping Kang** Iowa State University

926T Investigating the role of miRNAs in sensory organ specification and Notch signaling **Rebeccah Stewart** Memorial Sloan Kettering Cancer Center

927F Ligand-independent Notch signaling actively maintains intervein fate during wing vein patterning in *Drosophila* **Julio Miranda-Alban** University of Chicago

928F The evolutionarily conserved EHMT1/G9a histone methyltransferase family regulates sleep maintenance through ROS homeostasis in insulin-producing cells **Mireia Coll-Tané** Radboud University Medical Center

929F Quantitative analysis of expression and function of Piezo and SERCA in *Drosophila melanogaster* **Jeremiah Zartman** University of Notre Dame

930F Restraining Wnt activation and intestinal tumorigenesis by a Rab35 dependent GTPase relay **Tianyu Wang** German Cancer Research Center (DKFZ)

931F Inter-cell type interactions that control JNK signaling in the *Drosophila* intestine **Peng Zhang** Huntsman Cancer Institute, University of Utah

932S Transcriptional regulation of mitochondrial functions by Wnt signaling in adipocytes **Mengmeng Liu** Tulane University

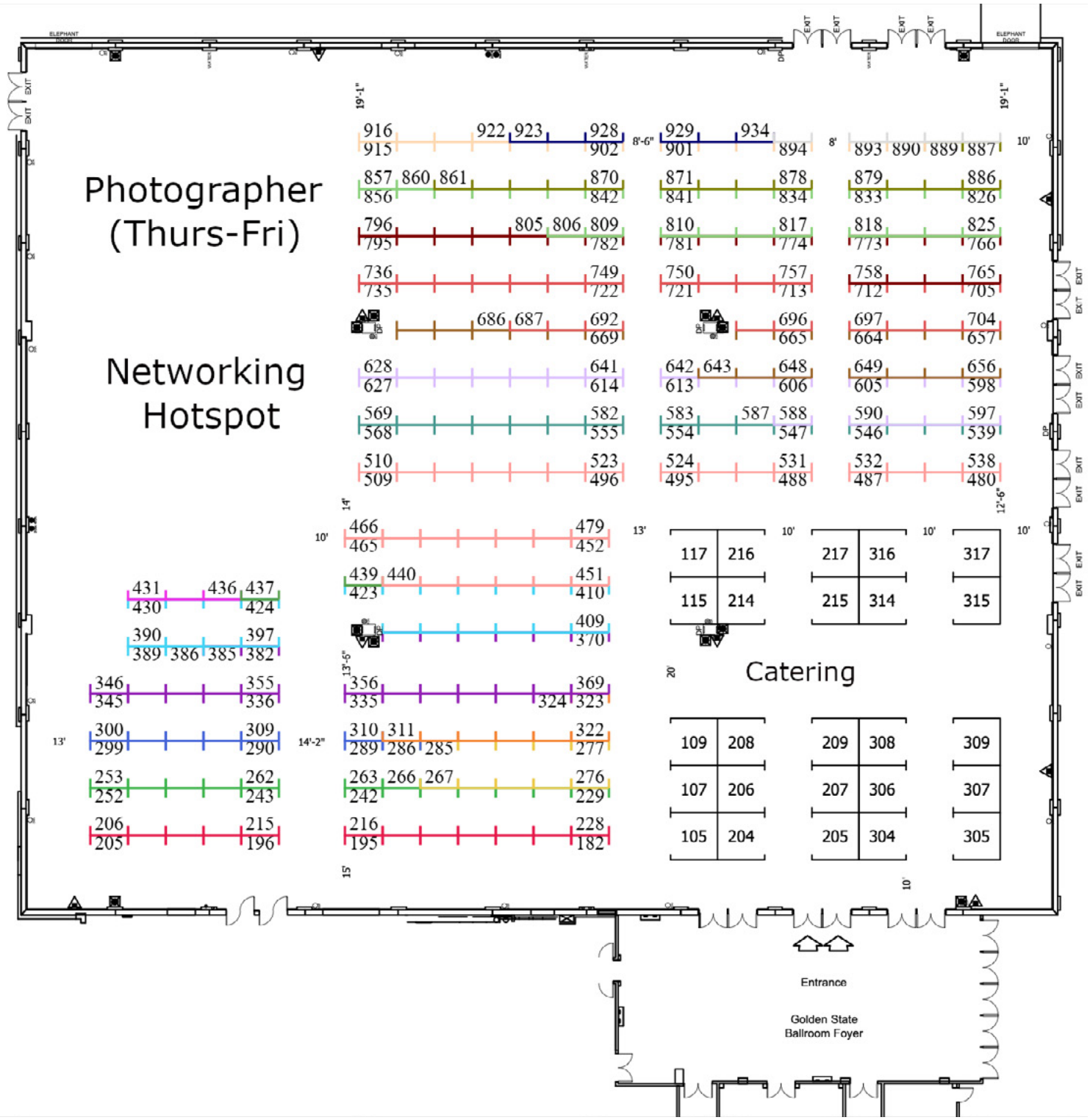
933S Tumor growth in Drosophila larval epithelial tissue induces distant organ wasting through fat body metabolic dysregulation **Kewei Yu** Simon Fraser University

934S Dietary soft electrophiles upregulate pro-resolving oxylipins in a *Drosophila* model of Parkinson's disease **Swarnali Chatterjee** The University of Alabama

Poster and Exhibit Map

Exhibitor	Booth Number
Archon Scientific	107
Bloomington Drosophila Stock Center	214
Darwin Chambers	305
DroBot Biotechnology	105
DrosoKING, Biologix Group	315, 317
Drosophila Genomics Resource Center	208
Electron Microscopy Sciences	306
EMbody Biosignals	309
FlyBase	304
Flytabs	205
Fungene	314
Genesee Scientific	204
Genetics Society of America	209
Hybrigenics Services	217
Lab Express	206
microPublication: Biology	216
Objective Biotechnology	117
Parter Medical Products	308
Percival Scientific	207
Qidong Fungene Biotechnology	314
Sable Systems International	316
Scikal Research	307
Vienna Drosophila Resource Center	215
WellGenetics	109
Zantiks	115

Exhibit and Poster Hall




RIVERFRONT PARK
WEST
EAST
LOOK OUT POINT
PACIFIC ROOMS F - I
2nd level
B
C
D
E
C,D,E (combined)
PACIFIC BALLROOM
A
F
G
H
I
PACIFIC F & G
PACIFIC H & I
ELEVATOR TO PACIFIC F - I
SUNSET PATIO
PACIFIC FOYER
FLAMINGO LAWN
LAPPER LAWN
SUNSET ROOMS 1 - 3
1
2
3
PALM ROOMS 1 - 8
8
7
SUNSET ROOM 4
BUSINESS CENTER LOWER LEVEL
GARAGE/LOWER LEVEL
TOWN AND COUNTRY FOYER
TOWN AND COUNTRY BALLROOM
A
B
C
D
PALM LANE
1
2
3
4
5
6
PALM LAWN
CALIFORNIA ROOMS 1 - 3
CALIFORNIA ROOM 4
GOLDEN STATE BOARDROOM
PALM BALLROOM
GOLDEN STATE FOYER
GOLDEN STATE BALLROOM
LOADING DOCK
NORTHEAST CORNER OF PROPERTY
SKYVIEW 1
9th floor
SKYVIEW 2
9th floor
REGENCY TOWER
MARTINI LAWN
N
W
E
S
ACCESSIBLE RESTROOM
RESTROOM
ELEVATOR
LACTATION ROOM
ADA PARKING
STAIRCASE
PARKING VALIDATION STATION & ATM
HALLWAY
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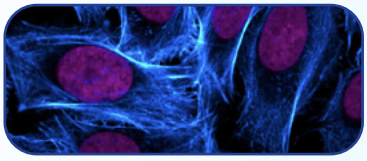
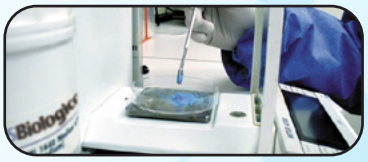
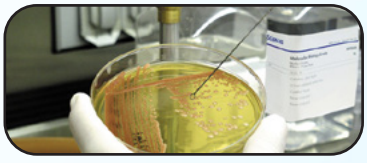
Regards,

Warren Shore
President
United States Biological


Antibodies


Biochemicals


Biologicals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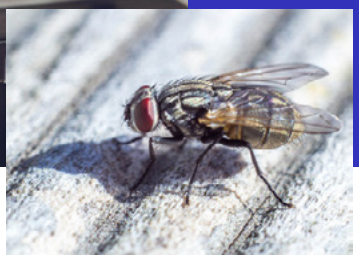

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Abstract Submission and Registration Open November 2025

GSA

67th Annual *Drosophila* Research Conference

March 4–8, 2026 | Sheraton Grand Chicago Riverwalk | Chicago, IL

Keynote Speaker
Amita Sehgal

GSA

Abstract Submission Deadline:
November 12, 2025

genetics-gsa.org/drosophila

Schedule Of Events

Wednesday, March 19, 2025		
1:00 p.m.–2:00 p.m.	Conference Success Tips and Welcome	Pacific E
1:00 p.m.–5:00 p.m.	Speaker Ready Room Open	Sunset 3
1:00 p.m.–4:00 p.m.	Fly Board Meeting (invitation only)	Palm 1-3
2:00 p.m.–4:00 p.m.	Ecdysone Workshop	Pacific D
2:30 p.m.–3:00 p.m.	Getting Involved in GSA's Early Career Professional Development Programs	Pacific E
3:00 p.m.–9:00 p.m.	Registration Open	Town & Country Ballroom Foyer
3:00 p.m.–4:00 p.m.	Meet-ups	Pacific A
3:30 p.m.–4:30 p.m.	Individual Development Plan (IDP) Workshop	Pacific E
6:45 p.m.–9:00 p.m.	Opening General Session	Town & Country Ballroom
9:00 p.m.–10:30 p.m.	Opening Mixer with Exhibitors	Golden State Ballroom
Thursday, March 20, 2025		
7:00 a.m.–4:00 p.m.	Speaker Ready Room Open	Sunset 3
7:30 a.m.–5:00 p.m.	Registration Open	Town & Country Ballroom Foyer
8:30 a.m.–12:45 p.m.	Plenary Session	Town & Country Ballroom
12:55 p.m.–1:55 p.m.	Come Fly with Me: Community, Connections, and Mentorship	Pacific A
1:00 p.m.–2:00 p.m.	Networking Hotspots	Golden State Ballroom
2:00 p.m.–4:00 p.m.	Poster Presentations and Exhibit Viewing	Golden State Ballroom
4:30 p.m.–6:30 p.m.	Concurrent Platform Sessions	Town & Country Ballroom
6:45 p.m.–7:45 p.m.	GSA Journals Social (invitation only)	Monkey Bar
8:00 p.m.–10:00 p.m.	Concurrent Workshops	Pacific Ballroom/Town & Country Ballroom
8:00 p.m.–9:00 p.m.	Networking Hotspots	Golden State Ballroom
Friday, March 21, 2025		
7:00 a.m.–4:00 p.m.	Speaker Ready Room Open	Sunset 3
7:30 a.m.–5:00 p.m.	Registration Open	Town & Country Ballroom Foyer
8:30 a.m.–12:30 p.m.	Concurrent Platform Sessions	Town & Country Ballroom
12:45 p.m.–1:45 p.m.	Peer into Publishing Q&A	Palm 1-3
1:00 p.m.–2:00 p.m.	Networking Hotspots	Golden State Ballroom
2:00 p.m.–4:00 p.m.	Poster Presentations and Exhibit Viewing	Golden State Ballroom
4:30 p.m.–6:30 p.m.	Concurrent Platform Sessions	Town & Country Ballroom
8:00 p.m.–10:00 p.m.	Concurrent Workshops	Pacific Ballroom
8:00 p.m.–9:00 p.m.	Networking Hotspots	Golden State Ballroom
Saturday, March 22, 2025		
7:00 a.m.–4:00 p.m.	Speaker Ready Room Open	Sunset 3
7:30 a.m.–2:00 p.m.	Registration Open	Town & Country Ballroom Foyer
8:00 a.m.–12:00 p.m.	Concurrent Platform Sessions	Town & Country Ballroom
12:30 p.m.–1:30 p.m.	Networking Hotspots	Golden State Ballroom
1:30 p.m.–3:30 p.m.	Poster Presentations and Exhibit Viewing	Golden State Ballroom
4:00 p.m.–6:00 p.m.	Concurrent Platform Sessions	Town & Country Ballroom
7:30 p.m.–8:00 p.m.	Come Fly with Me: Community, Connections, and Mentorship Mentee Meet-up	Pacific E
8:30 p.m.–10:00 p.m.	Techniques and Technology Session	Town & Country Ballroom
Sunday, March 23, 2025		
8:30 a.m.–11:40 a.m.	Closing Plenary	Town & Country Ballroom