Genetics Society of America Conferences

Program Book

C. elegans · Ciliate · Drosophila · Mouse

Population, Evolutionary & Quantitative · Yeast · Zebrafish

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Welcome to
The Allied Genetics Conference

Customize a schedule just for you, based on a wide range of themes:

Development and Morphogenesis
Disease Models and Aging
Evolution and Quantitative Biology
Genomics and Gene Regulation
Intracellular Dynamics
Neuroscience, Systems to Molecules
New Technology and Resources
Stem Cell, Regeneration and Germline
Professional Development and Education

Here is the meeting you've been asking for, we are..

Bringing Genetics Together

C. elegans cover image credit to Carolyn Marks and David Hall.
Yeast cover image credit to: Masur-Own work, CC BY 2.5,
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Genetics Society of America

Founded in 1931, the Genetics Society of America (GSA) is a professional scientific society with more than 5,000 members worldwide working to **deepen our understanding of the living world by advancing the field of genetics**, from the molecular to the population level. GSA represents the collective interests of the genetics and model organism communities in advocating support for research, educating students and the public about the importance of genetics, and providing a respected and authoritative voice on genetic issues increasingly in the public eye.

GSA promotes research and fosters an international community of geneticists by promoting interaction among geneticists (including microbial, plant, animal, human, and population and theoretical geneticists), while cultivating a community of thought leaders in the field.

GSA publishes two peer-edited scholarly journals:

• *GENETICS*, which has published high quality original research across the breadth of the field since 1916, and

GENETICS

• *G3: Genes|Genomes|Genetics*, an open access journal launched in 2011 to disseminate high quality foundational research in genetics and genomics.

G3 Genes | Genomes | Genetics

The Society has a deep commitment to fostering the next generation of scholars in the field through providing career development activities and resources and offering travel grant programs including the GSA Undergraduate Travel Awards and DeLill Nasser Awards for Professional Development in Genetics.

2016 GSA Board of Directors

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Mark Johnston, Editor-in-Chief, *GENETICS*
Trainee Advisory Representatives: Heath Blackmon • Sonia Hall

WELCOME FROM THE PRESIDENT

Welcome to Orlando and to TAGC. With this conference, the GSA undertakes an unusual experiment: assemble more than 2,500 aliquots of 7 different genetics communities, incubate in a large mixing chamber at warm temperature, and take time-points over 5 days. Successful outcomes would include novel cross-fertilizations and sustained macromolecular interactions; personal cerebral storage devices filling to capacity with cutting-edge knowledge; and instant chemistry leading to lifelong attachments. We'll know at the final time-point whether the experiment has worked by observing if its subjects are exuberant, exhilarated and maybe even a bit exhausted, completely consumed by the scientific talks, the discussions with colleagues and the mentoring, education and professional development activities.

We hope you will use your time in Orlando to reflect on, and delight in, the astonishing accomplishments of our field; to make new friends and collaborators; and with these newly made colleagues as well as those of long-standing, to plan out future projects to solve grand challenges in biology through genetics. And please use this opportunity to learn a bit more about what the GSA does for those who love genetics, including in journal publications, in advocacy, in education, in communication, and in the advancement of our trainees. From all of us at GSA, be part of a sensational experiment.

Best wishes,

Stan Fields
GSA President

During the meeting, you are encouraged to post thoughts on exciting scientific presentations and on other meeting events using the #TAGC16

WELCOME FROM THE CO-CHAIRS

Dear TAGC Enthusiasts,

We welcome you to this unprecedented gathering of Geneticists!

We have been looking forward to this meeting since we began planning 4 years ago. You may be wondering why GSA has launched TAGC, when the individual model organism conferences have done well over the last three decades? The answer is simple and compelling: We are in a new age of Genetics and Genomics and we are seeing a major explosion of knowledge in every field. In this new age, model organisms will continue to play an important role in biological discovery. But we feel that we can accelerate the pace of discovery by coming together and learning from each other to create something even bigger.

With this idea in mind, we asked: What makes a great meeting? Great people, terrific program, an attractive meeting site that accommodates all activities and is affordable, exciting scientific and special events, social gatherings, and flawless logistics. The result we envision? Great science, lots of interaction, meaningful discussions and scientific exchange, exposure to new technology, seeding new collaborations, and having lots of fun. We hope you find all these things and more at this unique "jamboree" of 7 concurrent meetings. Work hard, play hard, interact, stay up late, get up early, and enjoy every minute!

Phil Hieter, Meeting Co-chair

Jeannie Lee, Meeting Co-chair

Community Representatives

Geoffrey Kapler, Ciliates
Paul Sternberg, *C. elegans*
Sue Celniker, Drosophila
John Schimenti, Mouse
Michael Lynch, Population, Evolutionary and Quantitative Genetics
Michael Snyder, Yeast
Rebeccas Burdine, Zebrafish
Katie Dumas, Trainee Representative

Cross-Community Workshop Advisor, David Bilder
GSA Poster Awards, Peter Stirling
Sponsorship, Mike Snyder

Meeting Organizers

***C. elegans* Development, Cell Biology and Gene Expression Meeting**
Monica Gotta, University of Geneva
Kevin O'Connell, NIDDK, NIH

2016 Ciliate Molecular Biology Conference
Mark Winey, University of Colorado, Boulder
Geoffrey Kapler, Texas A&M University
Judith Van Houten, University of Vermont
Joshua Smith, Missouri State University

57th Annual Drosophila Research Conference
Susan Celniker, Lawrence Berkeley National Laboratory, Chair
David Bilder, University of California, Berkeley
Nancy Bonini, University of Pennsylvania
Ross Cagan, Mount Sinai School of Medicine

Mouse Genetics 2016
Teresa Gunn, McLaughlin Research Institute, Montana, Co-chair
Monica Justice, University of Toronto and Hospital for Sick Children, Canada, Co-chair
David Beier, Seattle Children's Research Institute, Washington
Martin Hrabé de Angelis, Helmholz Center and Technical University, Munich, Germany
Yumiko Saga, National Institute of Genetics, Japan
Philippe Soriano, Mount Sinai School of Medicine, New York
François Spitz, EMBL Heidelberg, Germany

Population, Evolutionary and Quantitative Genetics Meeting
Michael Lynch, Indiana University, Chair
Kirsten Bomblies, Harvard University
Lauren McIntyre, University of Florida
Bret Payseur, University of Wisconsin
Dimitri Petrov, Stanford University

Yeast Genetics Meeting
Brenda Andrews, University of Toronto
Michael Snyder, Stanford University
Lars Steinmetz, Stanford University
Yoshikazu Ohya, University of Tokyo

12th International Conference on Zebrafish Development and Genetics
Rebecca Burdine, Princeton University
Richard Dorsky, University of Utah
Joan Heath, Walter and Eliza Hall Institute of Medical Research
Anming Meng, Tsinghua University
Teresa Nicolson, Oregon Health & Science University
Elizabeth Patton, The University of Edinburgh, UK

The Genetics Society of America gratefully acknowledges the following meeting sponsors

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Disease Models & Mechanisms
Twist Bioscience

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The Meeting Organizers would like to thank the following organizers and session chairs.

***C. elegans* Development, Cell Biology and Gene Expression Meeting**
Julie Ahringer, Javier Apfeld , Joshua Bembenek, Mike Boxem, Julie Claycomb, Zhuo Du, Christian Eckmann, Jane Hubbard, Antony Jose, Xantha Karp, Michel Labouesse, Tamara Mikeladze-Dvali, Karen Oegema, Hannah Seidel, Geraldine Seydoux, Harold Smith, Anne Spang, Mi Hye Song, Martin Srayko, Jun Takayama, Anne Villeneuve, Ronen Zaidel-Bar, Esther Zanin

2016 Ciliate Molecular Biology Conference
Mireille Betemier, Doug Chalker, Jacek Gaertig, Jean-Francois Gout, Sabrice Guerrier, Jeff Kapler, Laura Landweber, Eric Meyer, Mariusz Nowacki, Chad Pearson, Martin Simon, Josh Smith, Naomi Stover, Anne-Marie Tassin, Sean Taverna, Megan Valentine, Judith Van Houten, Mark Winey, Emily Wiley

57th Annual Drosophila Research Conference
Erika Bach, Kari Barla, Arash Bashirullah, Hugo Bellen, Jacob Berry, Pradeep Bhaskar, David Bilder, Nancy Bonini, Ben Brown, Ana Busturia, Susan Celniker, Hsiao-Tuan Chao, Ron Davis, David Doupé, Daniela Drummond-Barbosa, Rodrigo Fernandez-Gonzalez, Nathalie Franc, Robin Fropf, Liz Gavis, Sharon Greenblum, Benjamin Housden, Aniek Janssen, Gary Karpen, Krystyna Keleman, Amy Kiger, Helmut Kramer, Rebecca Kreipke, Amanda Larracuente, John Laver, Ming-Chia Lee, Kari Lenhart, Howard Lipshitz, Dali Ma, Anthony Long, Erika Matunis, Michele Markstein, Lucy O'Brien, Kate O'Connor-Giles, Terry Orr-Weaver, Parthive Patel, Norbert Perrimon, Margot Quinlan, Pr. Jean-Marc Reichhart, Tor Erik Rusten, Hannele Ruohola-Baker, Nasser Rusan, Todd Schoborg , Matt Sieber, Sarah Siegrist, Conor Sipe, Jason Tennessen, Mark Van Doren, Marta Wayne, Mo Weng, Yang Wu, Ting Xie, Julie Zeitlinger

2016 Mouse Genetics Meeting
David Beier, Teresa Gunn, Viive Howell, Martin Hrabe de Angelis, Monica Justice, Thomas Keane, Darla Miller, Lluis Montoliu, Steve Munger, Fernando Pardo Manuel de Villena, Bill Pavan, Fernando Pardo-Manuel de Villena, Yumiko Saga, Gabriela Sanchez-Andrade, John Schimenti, Clare Smith, Philippe Soriano, Francois Spitz

Population, Evolutionary and Quantitative Genetics Meeting
Kirsten Bomblies, Dan Hartl, Michael Lynch, Lauren McIntyre, Bret Payseur, Dmitri Petrov

Yeast Genetics Meeting
Brenda Andrews, Karen Arndt, Rachel Brem, Orna Cohen-Fix, Kara Dolinski, Aimee Dudley, Maitreya Dunham, Audrey Gasch, Dan Gottschling, Yona Kassir, Oliver Kerscher, Michael Knop, Karl Kuchler, Leonid Kruglyak, Vicki Lundblad, Mike McMurray, Helen Murphy, Yoshi Ohya, Steve Oliver, Lorraine Pillus, Gavin Sherlock, Mike Snyder, Lars Steinmetz, Peter Stirling, Dave Toczyski, Phong Tran, Toshi Tsukiyama, Fred van Leeuwen, Kevin Verstrepen, Eric Weiss

12th International Conference on Zebrafish Development and Genetics
James Amatruda, Herwig Baier, Darius Balciunas, Ashley Bruce, Rebecca Burdine, Rob Cornell, Jill de Jong, Richard Dorsky, Bruce Draper, Iain Drummond, Steve Farber, Michael Granato, Jenya Grinblat, David Grunwald, Joan Heath, Kristen Kwan, James Lister, Lisa Maves, Anming Meng, Mary Mullins, Teresa Nicolson, Liz Patton, Ken Poss, Fabienne Poulain, John Rawls, Alex Schier, Bettina Schmid, Howard Sirotkin, Brant Weinstein, Deborah Yelon, Len Zon

Trainee Organizing Committee
Andrew Adrian, Haifa Alhadyian, Krista Dobi, Alexandra Erwin, Sonia Hall,
Alex Hurlburt, Patty Jumbo-Lucioni, David Mets, Karissa Milbury, Stephanie Patchett,
Douglas Reilly, Victoria Schulman, Aakanksha Singhvi, Amanda Socha, Maria Sterrett,
Zeba Wunderlich

GSA extends its sympathy for the following community members that passed away during the last 12 months: J. Nichol Thomson, Bill Gelbart, Austin Hughes and John Preer.

Badges
Badges are required for admission to all sessions, posters, exhibit hall and mixers. Security will not allow individuals without badges to enter the Exhibit Hall. If you lose your badge, a replacement may be requested at the Conference Registration counters.

Presenters - Speaker Ready Room, Anaheim
All those giving oral talks are required to load and check their presentation the day before the start of their session in the Anaheim room, which will be open during the following hours:

Wednesday, July 13	1:00 pm – 9:30 pm
Thursday, July 14	7:00 am – 5:00 pm
Friday, July 15	7:00 am – 5:00 pm
Saturday, July 16	7:00 am – 5:00 pm

NOTE: You will not be able to upload presentations in the meeting room so checking in at the Speaker Ready Room is vital to the success of your talk.

Poster Sessions and Exhibits – Cypress Ballroom
All posters and exhibits will be in the Cypress Ballroom. The Hall will be open to conference registrants on a 24 hour basis beginning at 5:00 pm, Wednesday, July 13 until 12:00 noon, Saturday, July 16. Security will be posted at the entrance to the Hall and only individuals with the official TAGC registration badge will be admitted.

Exhibit representatives will be at their booths during the following hours:

Wednesday, July 13	9:00 pm – 11:00 pm
Thursday, July 14	8:00 am – 4:00 pm
Friday, July 15	8:00 am – 4:30 pm
Saturday, July 16	8:00 am – 12:00 noon

Authors are expected to present at their boards according to the following schedule:

Thursday, July 14	1:30 pm – 2:30 pm	Even-numbered posters
	2:30 pm – 3:30 pm	Odd-numbered posters
Friday, July 15	1:30 pm – 2:10 pm	“A” posters
	2:10 pm – 2:50 pm	“B” posters
	2:50 pm – 3:30 pm	“C” posters
Saturday, July 16	10:00 am – 11:00 am	Odd-numbered posters
	11:00 am – 12:00 noon	Even-numbered posters

All posters must be removed from poster boards **no later than 1:00 pm on Saturday, July 16.** After that time, remaining posters will be removed and recycled. Posters may only be removed by their own authorsr. Posters that are not collected may not be taken by someone who is not an author on that poster.

Mobile App
Download the TAGC mobile app to your smartphone (iOS and Android platforms). The Mobile App gives you the meeting at your fingertips. Once the app has been downloaded, you do not need an Internet connection to view information. Users of Blackberrys or Windows Mobile Devices have full access to the Program through the web version available at genetics2016.org.

WiFi/Internet
Free WiFi will be available at the Orlando World Center Marriott in guest rooms public space and the lobby.

Registration
Registrants can pick up registration materials and Certificates of Attendance at the registration desk in Cypress Ballroom 1 Alcove during the following times:

Wednesday, July 13	2:30 pm – 9:30 pm
Thursday, July 14	7:00 am – 5:00 pm
Friday, July 15	7:30 am – 5:00 pm
Saturday, July 16	7:30 am – 2:00 pm

Social Media Policy
Live tweeting of presentations is allowed unless the speaker explicitly opts out by stating so at the start of their talk. Attendees are encouraged to post their thoughts on exciting scientific advances and other meeting events. Use #TAGC16 to let everyone know what is happening at the meeting.

Camera, Mobile Phone, and Video Recording Policies
Attendees are strictly prohibited from using cameras, including mobile phone and tablet cameras, and all other audio and/or video recording devices in all meeting session rooms. This policy includes the poster section of the exhibit hall.

This means attendees may not take photos or video of speakers presenting or their slides. Attendees not adhering to this policy may be asked to leave the room and will be asked to delete all photos or videos already taken; additional action may be taken with repeated or egregious offenders. When registering, you are required to agree that you will adhere to this policy.

Attendees are asked to be respectful of their colleagues by turning off all mobile devices before entering meeting rooms.

Ticketed/Optional Events
For the following events you need to have purchased a ticket in advance to attend. If you are interested in attending one of these events, and did not register in advance, stop by the conference registration desk in Cypress Ballroom 1 Alcove to see if there are any tickets available.

Mentoring Roundtables #1 and #2 (Thursday and Saturday)
Science Café (Thursday)
Editor's Panel Discussion and Roundtable (Friday)
Closing Reception (Saturday)

Security/Lost and Found
For all emergencies and lost and found items contact the Orlando World Center Marriott Security by dialing 0 from any house phone. The conference registration desk will be able to assist you as well.

FlyBase, MGI, SGD, WormBase, Zfin Demo Room – Palms Ballroom Canary 3-4
All registrants are invited to the demo room to learn how to make the best use of their tools and features for your research and teaching. Throughout the afternoon, other than the scheduled group presentations noted below, personnel are available in the demo room for one-on-one tutorials, troubleshooting and discussions.

Thursday, July 14
9:00 am - 8:00 pm Demo room open for tutorials and discussions

Presentations:

12:45 pm - 1:00 pm	FlyBase: New in FlyBase: Orthology, Human Disease, Gene2Function, miRNA, Author Reagent Form, Protein Domains, Gene Summaries, Video Tutorials, and Community Resources
1:15 pm - 1:30 pm	WormBase: WormBase: a portal to nematode model systems for all research communities
6:15 pm - 6:30 pm	SGD: Saccharomyces Genome Database: New data displays and computational tools
6:45 pm - 7:00 pm	MGI**:** Searching for human disease, gene expression, genome features on Mouse Genome Informatics
7:15 pm - 7:30 pm	Zfin: Exploring new data at ZFIN: Human disease models and Expression as Phenotype

Friday, July 15
9:00 am - 8:00 pm Demo room open for tutorials and discussions

Presentations:

12:45 pm – 1:00 pm	SGD: Saccharomyces Genome Database: New data displays and computational tools
1:15 pm – 1:30 pm	Zfin: Exploring new data at ZFIN: Human disease models and Expression as Phenotype
1:40 pm – 1:55 pm	MGI: Searching for human disease, gene expression, genome features on Mouse Genome Informatics
6:45 pm – 7:00 pm	WormBase: WormBase: a portal to nematode model systems for all research communities
7:15 pm – 7:30 pm	FlyBase: New in FlyBase: Orthology, Human Disease, Gene2Function, miRNA, Author Reagent Form, Protein Domains, Gene Summaries, Video Tutorials, and Community Resources

Meals/Meal Plans
Those who purchased a meal plan in advance should redeem their TAGC Meal Plan ticket (provided with their namebadge) by visiting the Meal Plan Ticket Desk at the Cypress Ballroom. The Ticket Desk will provide you with the coupons necessary to use for meals. Meal coupons should be treated like cash and cannot be replaced if lost.

Meal plan coupons can be used at all of the hotel restaurants, cash and carry carts and the food court. Those who did not purchase a meal plan can dine at any of those locations as well at the prevailing menu pricing.

Seating is available in the Crystal Ballroom after picking up your meals at the concessions or food carts.

Parking/Shuttle Bus
Complimentary self-parking is available to meeting attendees. A shuttle service is available between the Orlando World Center Marriott and the Marriott Village overflow properties for those who are registered at those hotels. See the app, hotel front desk and conference registration desk for the shuttle schedule.

Childcare/Family Room

Onsite childcare services may be available through your hotel concierge. Individual or group sitters may be arranged to provide in-room hotel childcare. Please check with your hotel well in advance of your arrival date. The Orlando World Center Marriott also has a wide variety of age appropriate activities for children.

It is the responsibility of the parents, guardian, legal guardian, or individual requesting childcare services to screen caregivers and to make a determination as to the appropriateness of the caregiver. The Genetics Society of America does not screen any of the childcare services and assumes no responsibility with respect to these services and accepts no liabilities.

Children must be accompanied by a parent or guardian during exhibit hours. Parents or guardians may bring children under the age of 18 to educational and social events provided the children do not disrupt the event. Under no circumstances are children under the age of 18 allowed in the Exhibit Hall during set-up and dismantle times.

A Family Room for nursing mothers is located in the Orlando World Center Marriott's North Tower on the lobby level in the Key Largo room. Please note that parents and guardians are responsible for providing infant care supplies. The Family Room is unsupervised and The Genetics Society of America is not responsible for any accidents or injuries that may occur..

Code of Conduct
GSA expects attendees and exhibitors to respect each other, GSA staff, and Marriott staff and behave in a courteous and civilized fashion. Attendees should respect common sense rules for public behavior, personal interaction, common courtesy, and respect for private property.

Abusive, harassing, or threatening behavior towards any other attendee, GSA staff, or Marriott staff will not be tolerated. Please report any incidents in which an attendee of the meeting is abusive, insulting, intimidating, bothersome, or acting in an unsafe or illegal manner to GSA staff or security immediately. Please contact: Anne Marie Mahoney; mahoney@genetics-gsa.org if you need to file a complaint.

GSA Education @ TAGC

Wednesday, July 13, 2016 – Descriptions of all events are available online.
GSA Education Pre-Conference Workshops

Crash Course in Vision & Change: 9:00 am – 4:00 pm

Educator Flex Pass: 9:00 am - 12:00 pm: Morning Session
Collaborative Hackathon: Make Lesson Plans using a Model Organism Card Game
Teaching Foundational Concepts through Primary Literature
Integrating Discovery-based Research into the Undergraduate Curriculum

Educator Flex Pass: 1:00 pm - 4:00 pm: Afternoon Session
All three morning workshops will be repeated.

Saturday, July 16, 2016
You Can Publish That, Too! Publishing education resources: 4:00 pm - 6:00 pm

Professional Development Events

Wednesday, July 13, 2016
Next Stage Mixers: Undergraduates, graduate students, postdocs, and new faculty members: 5:00 pm - 7:00 pm

Thursday, July 14, 2016
Mentoring Roundtables 1: 12:30 pm - 1:30 pm

Job Fair: 1:30 pm - 3:30 pm

Plenary Session and Workshop for Undergraduate Researchers: 4:00 pm - 6:00 pm

Science Café with Brian Malow: 10:00 pm - 11:30 pm:

Friday, July 15, 2016
Career Workshop - Nailing the Job Talk: 2:30 pm - 3:15 pm:

Women in Genetics Workshop and Networking: 6:00 pm - 8:00 pm
Powered by WiG: Thanks to the women whose generous contributions provided funding for this workshop.

Saturday, July 16, 2016
Trainee Bootcamp Workshops
Concurrent Session 1: 8:00 am – 9:00 am
Finding a Job in Academia
Publishing in the Digital Age
Finding Funding

Concurrent Session 2: 9:00 am – 10:00 am
Careers Beyond Traditional Academia
Scientific Publishing
Finding Funding

Career Workshop - Negotiating Job Offers: 10:30 am - 11:15 am

Mentoring Roundtables 2: 12:30 pm - 1:30 pm

GeneticsCareers Center

Watch for announcements about how to sign up for career counseling and networking opportunities @GeneticsGSA **#TAGC16**.

Open:
Thursday, July 14, 1:30 pm – 3:30 pm
Friday, July 15, 2:00 pm – 4:00 pm
Saturday, July 16, 10:00 am – 12:00 pm

These professional development events brought to you by the

TAGC Trainee Organizing Committee

Kathleen Dumas (Buck Institute), *Chair*
Andrew Adrian (University of Iowa)
Haifa Alhadyian (University of Kansas)
Krista Dobi (Baruch College)
Alexandra Erwin (University of Kansas)
Sonia Hall (University of Massachusetts Medical School)
Alex Hurlburt (Indiana University)
Patty Jumbo-Lucioni (Samford University)
David Mets (University of California, San Francisco)
Karissa Milbury (University of British Columbia)
Stephanie Patchett (University of Texas, Austin)
Douglas Reilly (Worchester Polytechnic Institute)
Victoria Schulman (Weill Cornell Graduate School of Medical Sciences)
Aakanksha Singhvi (The Rockefeller University)
Amanda Socha (Dartmouth College)
Maria Sterrett (Indiana University)
Zeba Wunderlich (Harvard Medical School)

Look at the Schedule of Events for each community
to find more education workshops! Also be sure to visit the
Education, Outreach, and Broader Impacts posters in the Exhibit Hall.

Be on the lookout for informal talks and meetups about education and outreach at GSA Central in the Exhibit Hall! They will be announced on social media throughout the conference. #TAGC16 @GeneticsGSA

Wednesday, July 13			
2:00pm- 9:30pm		**Speaker Ready Room Open** *All presenters must upload their presentation 24 hours in advance of their session*	**Hall of Cities Anaheim**
2:30pm- 9:30pm		**Registration Open**	**Cypress Ballroom 1 Alcove**
2:30pm- 9:30pm		**Meal Plan Ticket Desk**	**Cypress Ballroom Registration**
5:00pm- 7:00pm		**Next Stage Mixers :** **Undergrad Mixer** *Ticketed event* **Graduate Student Mixer** *Ticketed event* **Postdoc Mixer** *Ticketed event* **Early Career Faculty Mixer** *Ticketed event*	**North Tower** **Key West** **Sawgrass/Vinoy** **Harbor Beach** **Marco Island**
7:00pm- 9:00pm		**Scientific Sessions:**	
	W	**Plenary Session 1: Germline Dynamics**	**Grand Ballroom 8A**
	C	**Ciliate Genomics: Genome Structure and Organization**	**Palms Ballroom Canary 2**
	D	**Opening General Session**	**Crystal Ballroom M**
	M	**International Resources**	**Crystal Ballroom G1**
	P	**PEQG Keynote 1**	**Crystal Ballroom J1**
	Y	**The Dynamic Genome**	**Crystal Ballroom G2**
	Z	**Regeneration and Stem Cells**	**Grand Ballroom 7A**
9:00pm- 11:00pm		**Opening Mixer with Exhibits**	**Cypress Ballroom**
Thursday, July 14			
12:00 am- 12:00 am		**Posters Open**	**Cypress Ballroom**
6:30am- 1:00pm		**Meal Plan Ticket Desk**	**Cypress Ballroom Registration**
7:00am- 5:00pm		**Registration Open**	**Cypress Ballroom 1 Alcove**
7:00am-		**Speaker Ready Room Open**	**Hall of Cities**

W = C. elegans, C = Ciliates, D = Drosophila, M = Mouse, P = PEQG, Y = Yeast, Z = Zebrafish
Please note all events are open to all attendees.

5:00pm		*All presenters must upload their presentation 24 hours in advance of their session*	**Anaheim**
7:45am-10:00am		**Genetics and Determinants of Health Joint Plenary Session**	**Palms Ballroom Sago/Sabal/Royal**
8:00am-4:00pm		**Exhibits Open**	**Cypress Ballroom**
9:00am-8:00pm		**Demo Room: MOD (FlyBase, MGI, SGD, WormBase, Zfin) Demo Room Open for Tutorials and Discussions**	**Palms Ballroom Canary 3-4**
10:30am-12:30pm		**Scientific Sessions:**	
	W	**Genomics, Gene Regulation and Technology**	**Grand Ballroom 8A**
	C	**Programmed DNA Rearrangement I**	**Palms Ballroom Canary 2**
	D	**Drosophila Plenary Session I**	**Palms Ballroom Sago/Sabal/Royal**
	M	**Comparative Genomics, Computational Methods and Evolution**	**Crystal Ballroom G1**
	P	**Natural Selection and Adaptation**	**Crystal Ballroom J1**
	Y	**Post-Transcriptional Gene Regulation**	**Crystal Ballroom G2**
	Z	**Early Development and Morphogenesis**	**Grand Ballroom 7A**
	Z	**Neural Circuits, Neurophysiology and Behavior**	**Grand Ballroom 7B**
12:30pm-1:30pm		**Mentoring Roundtables #1** *Pre-registration Required*	**North Tower Harbor Beach/Marco Island**
12:30pm-1:30pm		**Speaking Up for Genetics and Model Organism Research** *Food for purchase*	**Crystal Ballroom H**
1:30pm-3:30pm		**Poster Presentations**	**Cypress Ballroom**
1:30pm-3:30pm		**GeneticsCareers Center and Job Fair**	**Cypress Ballroom 1C**

W = C. elegans, C = Ciliates, D = Drosophila, M = Mouse, P = PEQG, Y = Yeast, Z = Zebrafish
Please note all events are open to all attendees.

4:00pm-6:00pm		**Scientific Sessions:**	
	W	**Intracellular Organelles, Trafficking, and the Cytoskeleton**	**Grand Ballroom 8A**
	C	**Evolution and Population Biology**	**Palms Ballroom Canary 2**
	D	**Cell Division and Growth Control**	**Palms Ballroom Sago**
	D	**Neural Development**	**Palms Ballroom Sabal**
	D	**Organogenesis & Gametogenesis**	**Palms Ballroom Royal**
	M	**Development**	**Crystal Ballroom G1**
	P	**James F. Crow Symposium**	**Crystal Ballroom J1**
	Y	**Epigenetics and Transcriptional Regulation**	**Crystal Ballroom G2**
	Z	**Cardiac Development**	**Grand Ballroom 7A**
	Z	**Gene Regulation and RNA Biology**	**Grand Ballroom 7B**
		Plenary Session and Workshop for Undergraduate Researchers	**Sawgrass**
7:45pm-9:45pm		**Scientific Sessions:**	
	W	**Plenary Session 2: Systems Biology**	**Grand Ballroom 8A**
	C	**Genome Stability and Dynamics**	**Palms Ballroom Canary 2**
	D	**Cell Cycle and Cell Death**	**Palms Ballroom Sago**
	D	**Evolution & Quantitative Genetics I**	**Palms Ballroom Sabal**
	D	**Pattern Formation**	**Palms Ballroom Royal**
	M	**Translational and Systems Genetics**	**Crystal Ballroom G1**
	P	**PEQG Keynote 2**	**Crystal Ballroom J1**
	Y	**Tackling Human Disease Using Yeast**	**Crystal Ballroom G2**
	Z	**Neurobiology**	**Grand Ballroom 7A**
10:00pm-11:30pm		**Science Cafe Event** *Ticketed event*	**Palms Ballroom Sabal**

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Please note all events are open to all attendees.

Friday, July 15			
12:00 am-12:00 am		**Posters Open**	**Cypress Ballroom**
7:00am-5:00pm		**Speaker Ready Room Open** *All speakers must upload their presentation 24 hours in advance of their session*	**Hall of Cities Anaheim**
7:30am-5:00pm		**Registration Open**	**Cypress Ballroom 1 Alcove**
8:00am-9:30am		**Scientific Sessions:**	
	W	**Aging and Cell Death** *Sponsored by the National Institute on Aging*	**Grand Ballroom 8A**
	C	**Programmed DNA Rearrangement II**	**Palms Ballroom Canary 2**
	D	**Cell Biology & Cytoskeleton**	**Palms Ballroom Sago**
	D	**Evolution & Quantitative Genetics II**	**Palms Ballroom Sabal**
	D	**Chromatin & Epigenetics**	**Palms Ballroom Royal**
	M	**Technological Innovations**	**Crystal Ballroom G1**
	P	**Cryptic Variation and Robustness**	**Crystal Ballroom J1**
	Y	**Division and Development**	**Crystal Ballroom G2**
	Z	**Models of Human Disease**	**Grand Ballroom 7A**
	Z	**Evolution**	**Grand Ballroom 7B**
8:00am-4:30pm		**Exhibits Open**	**Cypress Ballroom**
9:00am-8:00pm		**Demo Room: MOD (FlyBase, MGI, SGD, WormBase, Zfin) Demonstrations Open for Tutorials and Discussions**	**Palms B allroom Canary 3-4**
10:00am-12:00pm		**Scientific Sessions:**	
	W	**Cell Cycle, Cell Division, Cytokinesis**	**Grand Ballroom 8A**
	C	**Chromatin Structure & Chromatin Modification**	**Palms Ballroom Canary 2**
	D	**Physiology, Organismal Growth & Aging**	**Palms Ballroom Sago**
	D	**Techniques & Resources**	**Palms Ballroom Sabal**

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	D	**RNA Biology**	**Palms Ballroom Royal**
	M	**Human Disease Models 1**	**Crystal Ballroom G1**
	P	**Mutation & Recombination**	**Crystal Ballroom J1**
	Y	**Stress Sensing and Damage Control**	**Crystal Ballroom G2**
	Z	**Emerging Technologies - Imaging**	**Grand Ballroom 1-2**
	Z	**Signaling**	**Grand Ballroom 7B**
	Z	**Organogenesis (Mesoderm, Endoderm, Ectoderm)**	**Grand Ballroom 7A**
11:00am-12:00pm		**Scientific Sessions:**	
	W	**Cell Polarity and Cell Fate**	**Grand Ballroom 8A**
12:00pm-1:30pm		**Editor's Panel Discussion and Roundtable** *Ticketed event*	**North Tower Harbor Beach/Marco Island**
1:30pm-3:30pm		**Poster Presentations**	**Cypress Ballroom**
1:30pm-3:30pm		**GeneticsCareers Center**	**Cypress Ballroom 1C**
2:00pm-2:45pm		**GeneticsCareers Workshop – Nailing the Job Talk**	**Cypress Ballroom 1B**
4:00pm-6:00pm		**Scientific Sessions:**	
	W	**Cell Patterning and Morphogenesis**	**Grand Ballroom 8A**
	C	**Ciliate Signaling Systems: Signal Transduction, Protein Secretion, and Trafficking**	**Palms Ballroom Canary 2**
	D	**Cell Biology & Signal Transduction**	**Palms Ballroom Sago**
	D	**Drosophila Models of Human Disease I**	**Palms Ballroom Sabal**
	D	**Regulation of Gene Expression I**	**Palms Ballroom Royal**
	M	**Epigenetics**	**Crystal Ballroom G1**
	P	**Molecular Evolution**	**Crystal Ballroom J1**
	Y	**Yeast Evolution in and out of the Lab**	**Crystal Ballroom G2**
	Z	**Highlighted Talks, Awards Ceremony and Community Meeting**	**Grand Ballroom 7A**

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6:00pm-7:30pm		**Women in Genetics Panel and Networking** *Ticketed event*	**North Tower** **Harbor Beach/Marco Island**
7:30pm-9:30pm		**Development and Evolution** **Joint Plenary Session**	**Palms Ballroom** **Sago/Sabal/Royal**
Saturday, July 16			
12:00 am-12:00noon		**Posters Open**	**Cypress Ballroom**
7:00am-5:00pm		**Speaker Ready Room Open** *All speakers must upload their presentation 24 hours in advance of their session.*	**Hall of Cities** **Anaheim**
7:30am-2:30pm		**Registration Open**	**Cypress Ballroom 1 Alcove**
8:00am-10:00am		**Workshops:**	
		Automated Tracking for Quantitative Phenotyping	**Grand Ballroom 3**
		CRISPR-based Genome Engineering	**Crystal Ballroom J2**
		Using CyVerse Cyberinfrastructure to Enable Data Intensive Research, Collaboration, and Education	**Grand Ballroom 1**
		Model Organisms to Face Environmental Problems	**Palms Ballroom Canary 1**
		Integrating Research and Teaching: Professional Development for Current and Future Faculty Members	**St. Thomas**
		Informatics Resources to Aid the Genetic Dissection of Neural Circuitry	**Palms Ballroom Canary 2**
		Everything you Wanted to Know about Sex	**Palms Ballroom Sabal**
		modMetabolome: Model Organism Metabolomics Consortium Workshop	**Grand Ballroom 8A**
		Feeding Behavior, Nutrition and Metabolism: Emerging Model Organisms	**Palms Ballroom Royal**
		Functional Genomics for Conserved Gene Function Discovery	**Crystal Ballroom J1**
		Cell Competition in Flies and Mice	**Crystal Ballroom G1**

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		Developmental Mechanics	**Crystal Ballroom G2**
		Model Systems in Drug Discovery	**Grand Ballroom 2**
		CRISPR/Cas9 - Techniques and applications in Fish, Flies, & Mice	**Grand Ballroom 7A**
		Gene Function Discovery within the IMPC Resource	**Crystal Ballroom C**
		Utilizing NCBI Databases for Model Organism Research	**Grand Ballroom 12-14**
		Systems Genetics in Complex Populations	**Crystal Ballroom A-B**
		An Introduction to Using Galaxy for Genetic Data Analysis	**Grand Ballroom 11**
		The InterMOD Consortium: A common interface to model organism data	**Crystal Ballroom N-Q**
8:00am-9:00am		**Trainee Bootcamp Workshops: Session 1:** **Finding a Job in Academia** **Finding Funding** **Publishing in the Digital Age**	**North Tower** **Bahamas** **Grand Cayman** **Aruba**
8:00am-12:00pm		**Exhibits Open**	**Cypress Ballroom**
9:00am-10:00am		**Trainee Bootcamp Workshops: Session 2:** **Careers Beyond Traditional Academia** **Finding Funding** **Scientific Publishing**	**North Tower** **Bahamas** **Grand Cayman** **Aruba**
10:00am-12:00pm		**Poster Presentations** *All posters must be removed by 1 pm*	**Cypress Ballroom**
10:00am-12:00pm		**GeneticsCareers Center**	**Cypress Ballroom 1C**
10:30am-11:15am		**GeneticsCareers Workshop - Negotiating Job Offers**	**Cypress Ballroom 1B**
12:15pm-1:45pm		**Mentoring Roundtables #2** *Ticketed event*	**North Tower** **Harbor Beach/Marco Island**
1:45pm-3:45pm		**Scientific Sessions:**	
	W	**Meiosis, Germ Line Development, and Sex Determination**	**Grand Ballroom 8A**
	C	**Cell Motility: Cilia, Basal Bodies, and Tubulin**	**Palms Ballroom Canary 2**
	D	**Organelles & Trafficking**	**Palms Ballroom Sago**

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	D	**Drosophila Models of Human Disease II**	**Palms Ballroom Sabal**
	D	**Gene Expression & Chromatin**	**Palms Ballroom Royal**
	M	**Cancer and Immunology**	**Crystal Ballroom G1**
	P	**Population Genetics**	**Crystal Ballroom J1**
	Y	**Revisiting Classical Genetics with New Technology**	**Crystal Ballroom G2**
	Z	**Neural Development and Regeneration**	**Grand Ballroom 7A**
	Z	**Cancer**	**Grand Ballroom 7B**
4:00pm-6:00pm		**Scientific Sessions:**	
	W	**RNAi, microRNAs, and Developmental Timing**	**Grand Ballroom 8A**
	C	**Cell Biology, Morphogenesis, & Development**	**Palms Ballroom Canary 2**
	M	**Rosa Beddington Lecture** **Stem Cells**	**Crystal Ballroom G1**
	P	**Complex Trait Evolution**	**Crystal Ballroom J1**
	Z	**Models of Human Disease**	**Grand Ballroom 7A**
4:00pm-6:00pm		**Workshops:**	**North Tower**
	D	**Spotlight on Undergraduate Research using Genetics Research Models**	**Aruba**
	D	**The Ecdysone Workshop**	**Palms Ballroom Canary 4**
	D	**Genetic and Genomic Models of Polyploidy**	**Crystal Ballroom A-B**
	Y	**Beyond cerevisiae: Exploiting yeast diversity in nature to understand genome evolution in diverse environments**	**Crystal Ballroom C-D**
	Y	**Getting Even More Out of SGD**	**Crystal Ballroom G2**
	D	**Drosophila Microbiota**	**Crystal Ballroom M**
		You Can Publish That, Too - Publishing Education Resources	**Bahamas**
6:00pm-6:30pm	M	**IMGS Business Meeting**	**Crystal Ballroom G1**

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7:30pm-9:30pm		**Scientific Sessions:**	
	W	**Plenary Session 3: Development and Disease**	**Grand Ballroom 8A**
	C	**Community Resources: Current and Future Needs**	**Palms Ballroom Canary 2**
	D	**Immunity and Pathogenesis**	**Palms Ballroom Sago**
	D	**Neurophysiology and Behavior** *Sponsored by the National Institute on Aging*	**Palms Ballroom Sabal**
	D	**Stem Cells**	**Palms Ballroom Royal**
	P	**PEQG Keynote 3**	**Crystal Ballroom J1**
	Y	**Structural and Cellular Organization**	**Crystal Ballroom G2**
	Z	**Haematopoiesis and Vascular Biology**	**Grand Ballroom 7B**
	Z	**Cell Biology and Polarity**	**Grand Ballroom 7A**
9:30pm-11:00pm		**Closing Reception**	**Cypress Ballroom 1**
Sunday, July 17			
7:55am-8:00am	D	**Poster Awards Presentation**	**Palms Ballroom Sago/Sabal/Royal**
8:00am-10:00am		**Scientific Sessions:**	
	C	**Ciliates in the Classroom and Undergraduate Ciliate Research Symposium**	**Palms Ballroom Canary 2**
	D	**Drosophila Plenary Session**	**Palms Ballroom Sago/Sabal/Royal**
	M	**Human Disease Models II**	**Crystal Ballroom G1**
	P	**Epistasis**	**Crystal Ballroom J1**
	Y	**The Fat and Sweet Sides of Life**	**Crystal Ballroom G2**
	Z	**Genome Editing**	**Grand Ballroom 7A**
10:30am-12:30pm		**Technology and its Application** **Joint Plenary Session**	**Palms Ballroom Sago/Sabal/Royal**

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C. elegans DEVELOPMENT, CELL BIOLOGY AND GENE EXPRESSION MEETING

Plenary and Platform Sessions

C. elegans Development, Cell Biology And Gene Expression Meeting

SCHEDULE AT-A-GLANCE

Wednesday, July 13		
2:00pm-9:30pm	Speaker Ready Room Open	Hall of Cities - Anaheim
7:00pm-9:00pm	Scientific Session: Plenary Session 1: Germline Dynamics	Grand Ballroom 8A
9:00pm-11:00pm	Opening Mixer with Exhibits	Cypress Ballroom
Thursday, July 14		
7:00am-5:00pm	Speaker Ready Room Open	Hall of Cities -Anaheim
7:45am-10:00am	Genetics and Determinants of Health Joint Plenary Session	Palms Ballroom
8:00am-4:00pm	Exhibits Open	Cypress Ballroom
9:00am-8:00pm	Demo Room: MOD (FlyBase, MGI, SGD, WormBase, Zfin) Demo Room Open	Palms Ballroom Canary 3-4
10:30am-12:30pm	Scientific Session: Genomics, Gene Regulation and Technology	Grand Ballroom 8A
12:30pm-1:30pm	Mentoring Roundtables #1	North Tower - Harbor Beach
12:30pm-1:30pm	Speaking Up for Genetics and Model Organism Research	Crystal Ballroom H
1:30pm-3:30pm	Poster Presentations 1:30pm-2:30pm: Even-numbered posters 2:30pm-3:30pm: Odd-numbered posters t	Cypress Ballroom
1:30pm-3:30pm	GeneticsCareers Center and Job Fair	Cypress Ballroom 1C
4:00pm-6:00pm	Scientific Session: Intracellular Organelles, Trafficking, and the Cytoskeleton	Grand Ballroom 8A
4:00pm-6:00pm	Plenary Session and Workshop for Undergraduate Researchers	North Tower - Sawgrass
7:45pm-9:45pm	Scientific Session: Plenary Session 2: Systems Biology	Grand Ballroom 8A
10:00pm-11:30pm	*Science Cafe Event	Palms Ballroom Sabal
Friday, July 15		
7:00am-5:00pm	Speaker Ready Room Open	Hall of Cities - Anaheim
8:00am-9:30am	Scientific Session: Aging and Cell Death	Grand Ballroom 8A
8:00am-4:30pm	Exhibits Open	Cypress Ballroom
9:00am-8:00pm	Demo Room: MOD (FlyBase, MGI, SGD, WormBase, Zfin) Demo Room Open	Palms Ballroom Canary 3-4
10:00am-11:00am	Scientific Session: Cell Cycle, Cell Division, Cytokinesis	Grand Ballroom 8A
11:00am-12:00pm	Scientific Session: Cell Polarity and Cell Fate	Grand Ballroom 8A
12:00pm-1:30pm	*Editor's Panel Discussion and Roundtable	North Tower - Harbor Beach
1:30pm-3:30pm	Poster Presentations 1:30pm-2:10pm: "A" poster authors present 2:10pm-2:50pm: "B" poster authors present 2:50pm-3:30pm: "C" poster authors present	Cypress Ballroom
1:30pm-3:30pm	GeneticsCareers Center	Cypress Ballroom 1C

** Ticketed Event*

#TAGC16

Friday, July 15 (continued)		
2:00pm-2:45pm	GeneticsCareers Workshop - Nailing the Job Talk	Cypress Ballroom 1B
4:00pm-6:00pm	Scientific Session: Cell Patterning and Morphogenesis	Grand Ballroom 8A
6:00pm-7:30pm	*Women in Genetics Panel and Networking	North Tower - Harbor Beach
7:30pm-9:30pm	Development and Evolution Joint Plenary Session	Palms Ballroom
Saturday, July 16		
7:00am-5:00pm	Speaker Ready Room Open	Hall of Cities - Anaheim
8:00am-10:00am	Workshops: See topics and descriptions under the Workshop Section	Multiple locations
8:00am-12:00pm	Exhibits Open	Cypress Ballroom
8:00am-9:00am	Trainee Bootcamp Workshops: Session 1	North Tower
9:00am-10:00am	Trainee Bootcamp Workshops: Session 2	North Tower
10:00am-12:00pm	Poster Presentations 10:00am-11:00am Odd-numbered posters 11:00am-12:00pm Even-numbered posters	Cypress Ballroom *(Posters must be removed by 1pm)*
10:00am-12:00pm	GeneticsCareers Center	Cypress Ballroom 1C
10:30am-11:15am	GeneticsCareers Workshop	Cypress Ballroom 1B
12:15pm-1:45pm	*Mentoring Roundtables #2	North Tower - Harbor Beach
1:45pm-3:45pm	Scientific Session: Meiosis, Germ Line Development, and Sex Determination	Grand Ballroom 8A
4:00pm-6:00pm	Scientific Session: RNAi, microRNAs, and Developmental Timing	Grand Ballroom 8A
4:00pm-6:00pm	Workshop: You Can Publish That, Too - Publishing Education Resources	North Tower Bahamas
7:30pm-9:30pm	Scientific Session: Plenary Session 3: Development and Disease	Grand Ballroom 8A
Sunday, July 17		
10:30am-12:30pm	Technology and its Application Joint Plenary Session	Palms Ballroom

** Ticketed Event*

Wednesday, July 13 7:00 PM – 9:00 PM
Grand Ballroom 8A

Plenary Session 1: Germline Dynamics

Moderators:
Joshua Bembenek, University of TN, Knoxville, and
Hannah Seidel, University of WI and Eastern Michigan University

Theme: Stem Cell, Regeneration and Germline

W397 - 7:00 Domestication of *C. elegans* Sperm. **Michael Miller**.

W398 - 7:40 Visualization and quantification of the transcriptional response to GLP-1/Notch signaling in the germline stem cell niche. **Judith Kimble**.

W399 - 8:05 Dynein subunit DLC-1 promotes localization and function of stem cell regulator FBF-2 in *C. elegans*. **Xiaobo Wang**.

W400 - 8:30 After extrusion, the second polar body is internalized via receptor-mediated phagocytosis in *C. elegans* embryos. **Ann Wehman**.

Thursday, July 14 7:45 AM – 10:00 AM
Palms Ballroom Sago/Sabal/Royal

Genetics and Determinants of Health Joint Plenary Session

Moderator: Lynn Cooley, Yale University, New Haven, CT

7:45 Welcome, Stan Fields, University of Washington, Seattle, GSA President.

7:50 Opening Remarks, Phil Hieter, University of British Columbia and Jeannie Lee, Harvard University, TAGC Co-chairs.

8:00 Translating Zebrafish Development to the Clinic. **Leonard Zon**.

8:30 Using Drosophila to unravel the mysteries of sleep: when, why and how. **Amita Sehgal**.

9:00 New insights into the pathogenesis and treatment of Marfan syndrome and other presentations of thoracic aortic aneurysm. **Harry Dietz**.

9:30 Accelerating Insights from Basic Genetics. **Francis Collins**.

Thursday, July 14 10:30 AM – 12:30 PM
Grand Ballroom 8A

Genomics, Gene Regulation and Technology

Moderators:
Harold Smith, NIH/NIDDK, Bethesda, MD, and
Julie Ahringer, University of Cambridge, United Kingdom

Theme: New Technology and Resources

W401 - 10:30 X-specific targeting of the *C. elegans* dosage compensation complex. **Sevinc Ercan**.

W402 - 10:45 Properties and activities of enhancers and promoters. **Chiara Cerrato**.

W403 - 11:00 Quantitative analysis of context-dependent regulation by the Wnt pathway at single cell resolution. **John Murray**.

W404 - 11:15 ShootingStar: Real-Time Tracking and Optical Manipulation of Single Cells in Development. **Pavak Shah**.

W405 - 11:30 Tissue-specific analysis of nuclear organization through development of a novel FLP/Frt-based toolkit for spatiotemporal control of gene expression. **Peter Askjaer**.

W406 - 11:45 Systematic engineering of a temperature-optimized Gal4/UAS system for transcriptional control of gene expression in *Caenorhabditis elegans*. **Jonathan Liu**.

W407 - 12:00 Longevity and its transgenerational inheritance is enabled by H3K9 methylation. **Teresa Lee**.

W408 - 12:15 CRISPR-mediated synthetic genetic analysis reveals genetic interactions among RNA binding proteins affecting fitness and lifespan. **Adam Norris**.

NOTES

Thursday, July 14 4:00 PM – 6:00 PM
Grand Ballroom 8A

Intracellular Organelles, Trafficking, and the Cytoskeleton

Moderators:
Anne Spang, University of Basel, Switzerland, and
Martin Srayko, University of Alberta, Canada

Theme: Intracellular Dynamics

W409 - 4:00 Investigating the role of microtubule minus-end proteins in noncentrosomal microtubule organization during epithelial development. **Taylor Skokan**.

W410 - 4:15 Cytoskeletal elements function together to move larval P-cell nuclei through constricted spaces. **Courtney Bone**.

W411 - 4:30 Mitochondria localize to injured axons to support regeneration. **Sungmin Han**.

W412 - 4:45 *C.elegans* as a model to study extracellular vesicle biology, dynamics and function. **Jyothi Akella**.

W413 - 5:00 The TspanC8 tetraspanins TSP-12 and TSP-14 function through the ADAM10 protease SUP-17 to promote BMP signaling in *C. elegans*. **Lin Wang**.

W414 - 5:15 Conserved NEKL/MLT protein network controls molting in *C. elegans*. **Vladimir Lazetic**.

W415 - 5:30 The catalytic activity of twitchin's kinase domain inhibits muscle activity. **Guy Benian**.

W416 - 5:45 Modeling cerebral cavernous malformations in *C. elegans*. **Brent Derry**.

Thursday, July 14 7:45 PM – 9:45 PM
Grand Ballroom 8A

Plenary Session 2: Systems Biology

Moderators:
Esther Zanin, The Ludgwig-Maximilians University of Munich, Germany, and
Jun Takayama, RIKEN, Kobe, Japan

Theme: Genomics and Gene Regulation

W417 - 7:45 A regulatory map of the C.elegans nervous system. **Oliver Hobert**.

W418 - 8:25 Single-cell *C. elegans* transcriptomics: Deciphering the expression of all genes in all cells throughout development. **Itai Yanai**.

W419 - 8:50 A combined binary interaction and phenotypic map of *C. elegans* cell polarity proteins. **Mike Boxem**.

W420 - 9:15 Caenorhabditis Genetics Center (CGC). **Aric Daul**.

Friday, July 15 8:00 AM – 9:30 AM
Grand Ballroom 8A

NOTES

Aging and Cell Death

Moderators:
Javier Apfeld, Northeastern University, Boston, MA, and
Jane Hubbard, New York University School of Medicine

Sponsored by the
National Institute on Aging

Theme: Disease Models and Aging

W421 - 8:00 Genetic Background and Experimental Reproducibility Play Critical Roles in Identifying Chemical Compounds with Robust Positive Effects on Longevity. **Mark Lucanic**.

W422 - 8:15 The neuroendocrine peptide DAF-7/TGF-β is a key regulator of dietary restriction in *C. elegans*. **Marissa Fletcher**.

W423 - 8:30 *dbl-1*/TGF-β and *daf-12*/NHR signaling mediate cell-nonautonomous effects of *daf-16*/FOXO on starvation-induced developmental arrest. **Rebecca Kaplan**.

W424 - 8:45 Fasting protects against proteostasis defects induced by hypoxia. **Nicole Iranon**.

W425 - 9:00 Omega-3 and -6 fatty acids allocate somatic and germline lipids to ensure fitness during nutrient and oxidative stress in *Caenorhabditis elegans*. **Sean Curran**.

W426 - 9:15 RAB-35 coordinates the engulfment and degradation of apoptotic cell corpses. **Ryan Haley**.

Friday, July 15 10:00 AM – 11:00 AM
Grand Ballroom 8A

Cell Cycle, Cell Division, Cytokinesis

Moderators:
Mi Hye Song, Oakland University, MI, and
Karen Oegema, Ludwig Institute for Cancer Research, CA

Theme: Intracellular Dynamics

W427 - 10:00 Hemicentin regulates Anillin to promote cytokinesis in *Caenorhabditis elegans* germ cells. **Yu Chung Tse**.

W428 - 10:15 ATX-2, The *C. elegans* Ortholog of Human Ataxin-2, Regulates Centrosome Size and Microtubule Dynamics. **Michael Stubenvoll**.

W429 - 10:30 Developing quantitative resource for computational analysis from images of *C. elegans* embryogenesis in a public database Phenobank. **Yukako Tohsato**.

W430 - 10:45 PAR polarity proteins promote enhanced spindle assembly checkpoint activity in germline blastomeres. **Abigail Gerhold**.

Friday, July 15 11:00 AM – 12:00 PM
Grand Ballroom 8A

Cell Polarity and Cell Fate

Moderator:
Geraldine Seydoux, Johns Hopkins University, Baltimore, MD

Theme: Intracellular Dynamics

W431 - 11:00 The balance of PAR polarity dictates cellular division patterning. **Yen Wei Lim**.

W432 - 11:15 Unraveling cell polarity dynamics with single-cell biochemistry. **Daniel Dickinson**.

W433 - 11:30 A Critical Role for Lipid Synthesis and Polyunsaturated Fatty Acids in *C. elegans* Early Embryonic Development. **Jason Watts**.

W434 - 11:45 The forkhead transcription factor UNC-130 integrates both BMP and Notch signaling to regulate dorsoventral patterning of the *C. elegans* postembryonic mesoderm. **Qinfang Shen**.

Friday, July 15 4:00 PM – 6:00 PM
Grand Ballroom 8A

Cell Patterning and Morphogenesis

Moderators:
Ronen Zaidel-Bar, National University of Singapore, and
Michel Labouesse, IBPS, Paris, France

Theme: Development and Morphogenesis

W435 - 4:00 VPR-1 MSP domains coordinate reproductive development with striated muscle metabolism. **Timothy Cole**.

W436 - 4:15 Sensory Activity Maintains Proper Neural Connectivity in *C. elegans*. **Joy Li**.

W437 - 4:30 A transient, pre-cuticular apical extracellular matrix defines tiny tube diameter. **Jennifer Cohen**.

W438 - 4:45 Rotating and elongating embryos: SPIM microscopy reveals how planar polarity could be established during morphogenesis. **Xinyi Yang**.

W439 - 5:00 UNC-33/CRMP inhibits growth cone protrusion in axon repulsion from UNC-6/netrin. **Mahekta Gujar**.

W440 - 5:15 WAVE/SCAR promotes alpha-catenin accumulation and junctional maturation in developing *C. elegans* epithelia. **Martha Soto**.

W441 - 5:30 Mechanical forces drive neuroblast morphogenesis and are required for epidermal enclosure. **Alisa Piekny**.

W442 - 5:45 Morphogenic movements and cell signalling events during gland cell and pharyngeal organ development in *Caenorhabditis elegans*. **Jay Kormish**.

NOTES

Friday, July 15 7:30 PM – 9:30 PM
Palms Ballroom Sago/Sabal/Royal

Development and Evolution Joint Plenary Session

Moderator: Jeannie Lee, Massachusetts General Hospital and Harvard University, Cambridge, MA

7:30 The Fred Kavli Foundation Distinguished Lecture: Flexibility and variability in behavior at the gene-environment interface. **Cori Bargmann**.

8:00 Colinear Hox genes regulation in mammals. **Denis Duboule**.

8:30 Of mice, men and birds: meiotic recombination and its evolution. **Molly Przeworski**.

9:00 Fishing for the secrets of stickleback and human evolution. **David Kingsley**.

NOTES

CROSS COMMUNITY WORKSHOPS

Saturday, July 16	**8:0am – 10:00 am**
Descriptions are in the Workshop section and in the app.	
Automated Tracking for Quantitative Phenotyping	Grand Ballroom 3
CRISPR-based Genome Engineering	Crystal Ballroom J2
Using CyVerse Cyberinfrastructure to Enable Data Intensive Research, Collaboration, and Education	Grand Ballroom 1
Model Organisms to Face Environmental Problems	Palms Ballroom Canary 1
Integrating Research and Teaching: Professional Development for Current and Future Faculty Members	St. Thomas
Informatics Resources to Aid the Genetic Dissection of Neural Circuitry	Palms Ballroom Canary 2
Everything you Wanted to Know about Sex	Palms Ballroom Sabal
modMetabolome: Model Organism Metabolomics Consortium Workshop	Grand Ballroom 8A
Feeding Behavior, Nutrition and Metabolism: Emerging Model Organisms	Palms Ballroom Royal
Functional Genomics for Conserved Gene Function Discovery	Crystal Ballroom J1
Cell Competition in Flies and Mice	Crystal Ballroom G1
Developmental Mechanics	Crystal Ballroom G2
Model Systems in Drug Discovery	Grand Ballroom 2
CRISPR/Cas9 - Techniques and applications in Fish, Flies, & Mice	Grand Ballroom 7A
Gene Function Discovery within the IMPC Resource	Crystal Ballroom C
Utilizing NCBI Databases for Model Organism Research	Grand Ballroom 12-14
Systems Genetics in Complex Populations	Crystal Ballroom A-B
An Introduction to Using Galaxy for Genetic Data Analysis	Grand Ballroom 11
The InterMOD Consortium: A common interface to model organism data	Crystal Ballroom N-Q

Saturday, July 16 1:45 PM – 3:45 PM
Grand Ballroom 8A

Meiosis, Germline Development, and Sex Determination

Moderators:
Anne Villeneuve, Stanford University School of Medicine, CA, and
Christian Eckmann, Martin Luther University, Saale, Germany

Theme: Stem Cell, Regeneration and Germline

W443 - 1:45 DAF-7/TGFβ signaling in the *C. elegans* germline stem cell niche. **Olga Pekar**.

W444 - 2:00 The combined activity of CPB-1^{CPEB} and GLD-3$^{Bic\text{-}C}$ opposes FBF^{Pum} to prevent the sperm-to-oocyte switch in *C. elegans* males. **Christian Eckmann**.

W445 - 2:15 *top-2* is required for proper chromosome segregation during male meiosis in *C. elegans*. **Aimee Jaramillo-Lambert**.

W446 - 2:30 The t-SNARE *syx-7* promotes cytokinesis during sperm meiosis. **Kristin Fenker**.

W447 - 2:45 Signaling sperm to stop or go: the seminal fluid protease inhibitor SWM-1 regulates *C. elegans* sperm motility. **Daniela Chavez**.

W448 - 3:00 The sperm TRP family channel TRP-3 induces a calcium wave in the fertilized oocyte of *C. elegans*. **Jun Takayama**.

W449 - 3:15 Maternal MEMI specifies the female meiosis II program in *C. elegans*. **Martin Srayko**.

W450 - 3:30 ELLI-1, a novel germline protein, modulates RNAi activity and P-granule accumulation in *C. elegans*. **Dustin Updike**.

Saturday, July 16 4:00 PM – 6:00 PM
Grand Ballroom 8A

RNAi, microRNAs, and Developmental Timing

Moderators:
Julie Claycomb, University of Toronto, Canada, and
Antony Jose, University of Maryland, College Park

Theme: Genomics and Gene Regulation

W451 - 4:00 Cell-cycle quiescence maintains *C. elegans* germline stem cells independent of GLP-1/Notch. **Hannah Seidel**.

W452 - 4:15 Beyond Cell Death: Systematic Analyses of Non-apoptotic CED-3 Caspase Functions in *C. elegans*. **Benjamin Weaver**.

W453 - 4:30 Two new genes regulate LIN-28 in the juvenile-to-adult transition. **Karin Kiontke**.

W454 - 4:45 The Argonaute VSRA-1 Regulates Gene Expression through Multiple Small RNA Pathways. **Julie Claycomb**.

W455 - 5:00 ALG-5 interacts with a subset of miRNAs to affect male gene expression and fecundity in *C. elegans*. **Taiowa Montgomery**.

W456 - 5:15 Toward an understanding of cooperative miRNA-mediated silencing. **Mathieu Flamand**.

W457 - 5:30 A continuum of mRNP complexes in embryonic miRNA-mediated silencing. **Thomas Duchaine**.

W458 - 5:45 Germline- and soma-specific mechanisms of heritable epigenetic silencing at an endogenous locus. **Olga Minkina**.

Saturday, July 16 7:30 PM – 9:30 PM
Grand Ballroom 8A

Plenary Session 3: Development and Disease

Moderators: **Tamara Mikeladze-Dvali**, The Ludwig-Maximilians University of Munich, Germany, and **Xantha Karp**, Central Michigan University, Mount Pleasant

Theme: Development and Morphogenesis

W459 - 7:30 The not so simple regulation of a simple cell death. **Barbara Conradt**.

W460 - 8:10 PP1β controls ZYG-1 levels to ensure precise centrosome doubling. **Jyoti Iyer**.

W461 - 8:35 Sumoylation and desumoylation in epidermal morphogenesis. **Limor Broday**.

W462 - 9:00 Conserved TRPA1-Nrf2 signaling mediates reactive alpha-dicarbonyl detoxification relevant for diabetic pathologies. **J. Chaudhuri**.

Sunday, July 17 10:30 AM – 12:30 PM
Palms Ballroom Sago/Sabal/Royal

Technology and its Application Joint Plenary Session

Moderator: Phil Hieter, University of British Columbia, Vancouver, Canada

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10:30 The gut microbiota and childhood undernutrition: looking at human development from a microbial perspective. **Jeffrey Gordon**.

11:00 Synthesis of the yeast genome and beyond. **Jef Boeke**.

11:30 Tomorrow's Table: Organic Farming, Genetics and the Future of Food. **Pamela Ronald**.

12:00 CRISPR-Cas Genome Engineering: Biology, Technology and Ethics. **Jennifer Doudna**. (Pre-recorded talk)

NOTES

2016 CILIATE MOLECULAR BIOLOGY MEETING

Plenary and Platform Sessions

2016 Ciliate Molecular Biology Conference

SCHEDULE AT-A-GLANCE

Wednesday, July 13		
2:00pm-9:30pm	Speaker Ready Room Open	Hall of Cities - Anaheim
7:00pm-9:00pm	Scientific Session: Genomics: Genome Structure and Organization	Palms Ballroom Canary 2
9:00pm-11:00pm	Opening Mixer with Exhibits	Cypress Ballroom
Thursday, July 14		
7:00am-5:00pm	Speaker Ready Room Open	Hall of Cities -Anaheim
7:45am-10:00am	Genetics and Determinants of Health Joint Plenary Session	Palms Ballroom
8:00am-4:00pm	Exhibits Open	Cypress Ballroom
9:00am-8:00pm	Demo Room: MOD (FlyBase, MGI, SGD, WormBase, Zfin) Demo Room Open	Palms Ballroom Canary 3-4
10:30am-12:30pm	Scientific Session: Programmed DNA Rearrangement I	Palms Ballroom Canary 2
12:30pm-1:30pm	Mentoring Roundtables #1	North Tower - Harbor Beach
12:30pm-1:30pm	Speaking Up for Genetics and Model Organism Research	Crystal Ballroom H
1:30pm-3:30pm	Poster Presentations 1:30pm-2:30pm: Even-numbered poster 2:30pm-3:30pm: Odd-numbered posters	Cypress Ballroom *(Posters must be removed by 1pm)*
1:30pm-3:30pm	GeneticsCareers Center and Job Fair	Cypress Ballroom 1C
4:00pm-6:00pm	Scientific Session: Evolution and Population Biology	Palms Ballroom Canary 2
4:00pm-6:00pm	Plenary Session and Workshop for Undergraduate Researchers	North Tower - Sawgrass
7:45pm-9:45pm	Scientific Session: Stability and Dynamics	Palms Ballroom Canary 2
10:00pm-11:30pm	*Science Cafe Event	Palms Ballroom Sabal
Friday, July 15		
7:00am-5:00pm	Speaker Ready Room Open	Hall of Cities - Anaheim
8:00am-9:30am	Scientific Session: Programmed DNA Rearrangement II	Palms Ballroom Canary 2
8:00am-4:30pm	Exhibits Open	Cypress Ballroom
9:00am-8:00pm	Demo Room: MOD (FlyBase, MGI, SGD, WormBase, Zfin) Demo Room Open	Palms Ballroom Canary 3-4
10:00am-12:00pm	Scientific Session: Chromatin Structure & Chromatin Modification	Palms Ballroom Canary 2
12:00pm-1:30pm	*Editor's Panel Discussion and Roundtable	North Tower - Harbor Beach

** Ticketed Event*

#TAGC16

Friday, July 15 (continued)		
1:30pm-3:30pm	Poster Presentations 1:30pm-2:10pm: "A" poster authors present 2:10pm-2:50pm: "B" poster authors present 2:50pm-3:30pm: "C" poster authors present	Cypress Ballroom
1:30pm-3:30pm	GeneticsCareers Center	Cypress Ballroom 1C
2:00pm-2:45pm	GeneticsCareers Workshop - Nailing the Job Talk	Cypress Ballroom 1B
4:00pm-6:00pm	Scientific Session: Signaling Systems: Signal Transduction, Protein Secretion, and Trafficking	Palms Ballroom Canary 2
6:00pm-7:30pm	*Women in Genetics Panel and Networking	North Tower - Harbor Beach
7:30pm-9:30pm	Development and Evolution Joint Plenary Session	Palms Ballroom
Saturday, July 16		
7:00am-5:00pm	Speaker Ready Room Open	Hall of Cities - Anaheim
8:00am-10:00am	Workshops: See topics and descriptions under the Workshop Section	Multiple locations
8:00am-12:00pm	Exhibits Open	Cypress Ballroom
8:00am-9:00am	Trainee Bootcamp Workshops: Session 1	North Tower
9:00am-10:00am	Trainee Bootcamp Workshops: Session 2	North Tower
10:00am-12:00pm	Poster Presentations 10:00am-11:00am: Odd-numbered posters 11:00am-12:00pm: Even-numbered posters	Cypress Ballroom
10:00am-12:00pm	GeneticsCareers Center	Cypress Ballroom 1C
10:30am-11:15am	GeneticsCareers Workshop	Cypress Ballroom 1B
12:15pm-1:45pm	*Mentoring Roundtables #2	North Tower - Harbor Beach
1:45pm-3:45pm	Scientific Session: Cell Motility: Cilia, Basal Bodies, and Tubulin	Palms Ballroom Canary 2
4:00pm-6:00pm	Scientific Session: Cell Biology, Morphogenesis, & Development	Palms Ballroom Canary 2
7:30pm-9:30pm	Scientific Session: Community Resources: Current and Future Needs	Palms Ballroom Canary 2
Sunday, July 17		
8:00am-10:00am	Scientific Session: Ciliates in the Classroom and Undergraduate Ciliate Research Symposium	Palms Ballroom Canary 2
10:30am-12:30pm	Technology and its Application Joint Plenary Session	Palms Ballroom

** Ticketed Event*

Wednesday, July 13 7:00 PM – 9:00 PM
Palms Ballroom Canary 2

Ciliate Genomics: Genome Structure and Organization

Moderator:
Laura Landweber, Princeton University, NJ and Columbia University, NY

Theme: Genomics and Gene Regulation

C13 - 7:00 Maintenance and loss of duplicated genes by dosage subfunctionalization in *Paramecium*. **Jean-Francois Pierre Gout**.

C14 - 7:30 De Novo sequencing of the *Paramecium tetraurelia* macronucleolar (MAC) genome using Pacific Biosciences single molecule long reads for improvement of genome assembly and annotation. **Rafal Woycicki**.

C15 - 7:45 Comparative genomics in the ciliate genus *Paramecium*. **Georgi Marinov**.

C16 - 8:00 Programmed retention of germline-limited genes in *Oxytricha trifallax*. **Richard Miller**.

C17 - 8:15 Cell Cycle Transcriptome Analysis in the Binucleated Ciliate, *Tetrahymena thermophila*. **Linying Zhang**.

C18 - 8:30 RNA-seq analysis of stress response to silver nanoparticles in *Tetrahymena thermophila*. **Angela Piersanti**.

C19 - 8:45 Preliminary analysis on genome and transcriptome data of two species of karyorelictids, *Loxodes* sp. and Trachelocercidae sp. (Ciliophora, Karyorelictea). **Ying Yan**.

Thursday, July 14 7:45 AM – 10:00 AM
Palms Ballroom Sago/Sabal/Royal

Genetics and Determinants of Health Joint Plenary Session

Moderator: Lynn Cooley, Yale University, New Haven, CT

7:45 Welcome, Stan Fields, University of Washington, Seattle, GSA President.

7:50 Opening Remarks, Phil Hieter, University of British Columbia and Jeannie Lee, Harvard University, TAGC Organizers.

8:00 Translating Zebrafish Development to the Clinic. **Leonard Zon**.

8:30 Using Drosophila to unravel the mysteries of sleep: when, why and how. **Amita Sehgal**.

9:00 New insights into the pathogenesis and treatment of Marfan syndrome and other presentations of thoracic aortic aneurysm. **Harry Dietz**.

9:30 Accelerating Insights from Basic Genetics. **Francis Collins**.

Thursday, July 14 10:30 AM – 12:30 PM
Palms Ballroom Canary 2

NOTES

Programmed DNA Rearrangement I

Moderators:
Eric Meyer, IBENS, Paris, France, and
Mireille Betemier, I2BC, Gif-sur-Yvette, France

Theme: Stem Cell, Regeneration and Germline

C20 - 10:30 Genome Rearrangement and Organization in *Oxytricha*: A Complex Epigenome. **Laura Landweber**.

C21 - 11:00 Novel genetic manipulation approaches to investigate development-specific genes in *Oxytricha trifallax*. **Derek Clay**.

C22 - 11:15 The prevalence of paralogous macronuclear DNA fragments aid in the formation of scrambled genes in *Oxytricha trifallax*. **Jonathan Burns**.

C23 - 11:30 Domesticated *piggyBac* transposases and DNA repair factors work hand in hand during programmed rearrangements in *Paramecium*. **Mireille Betermier**.

C24 - 12:00 SDCP, a novel *Paramecium* protein involved in macronuclear development during autogamy. **Aditi Singh**.

C25 - 12:15 A mutagenesis screen based on mating-type switch reveals a small subset of IESs enriched in a 5-bp motif. **Simran Bhullar**.

Thursday, July 14 4:00 PM – 6:00 PM
Palms Ballroom Canary 2

Evolution and Population Biology

Moderator:
Jean-Francois Gout, Indiana University, Bloomington

Theme: Evolution and Quantitative Biology

C26 - 4:00 Transposable elements as vehicles of gene movement and duplication within and between eukaryotes. **Ellen Pritham**.

C27 - 4:30 Evolution of internal eliminated sequences in *Paramecium*. **Diamantis Sellis**.

C28 - 4:45 Population genomics of *Paramecium* species. **Parul Johri**.

C29 - 5:00 Transcriptome analysis in the Antarctic ciliate Euplotes focardii: molecular basis of cold adaptation and insights regarding the potential impact of climate change. **Cristina Miceli**.

C30 - 5:30 Comparison of adaptive mechanism between sexual and asexual reproduction in *Tetrahymena thermophila* based on the experimental evolutionary genomics. **Wei Miao**.

C31 - 5:45 Diversities of endosymbiotic *Rickettsia* in the fish parasite *Ichthyophthirius multifiliis*. **Kassandra Zaila**.

Thursday, July 14 7:45 PM – 9:45 PM
Palms Ballroom Canary 2

Genome Stability and Dynamics

Moderators:
Jeff Kapler, Texas A&M University, College Station, and
Josh Smith, Missouri State University, Springfield

Theme: Genomics and Gene Regulation

C32 - 7:45 Genetic and epigenetic control of DNA replication in *Tetrahymena thermophila*. **Geoffrey Kapler**.

C33 - 8:15 Beyond condensation: novel roles for condensin in the polyploid somatic nucleus of *Tetrahymena thermophila*. **Rachel Howard-Till**.

C34 - 8:45 Repair of a fragile site in the mating type genes using an episomal template in *Tetrahymena*. **Marcella Cervantes**.

C35 - 9:00 Identification and Characterization of *Tetrahymena thermophila* Snf2/Swi2 ATPase Homologs Involved in DNA Repair. **Andrew Morin**.

C36 - 9:30 Interplay between the Homologs Rad51 and Dmc1 in Cell Division, Sexual Reproduction, and Homologous Recombination Repair. **Amaal Abulibdeh**.

Friday, July 15 8:00 AM – 9:30 AM
Palms Ballroom Canary 2

Programmed DNA Rearrangement II

Moderator:
Mariusz Nowacki, University of Bern, Switzerland

Theme: Stem Cell, Regeneration and Germline

C37 - 8:00 Both maternal and paternal scnRNAs can target excision of transposon-derived sequences during *Paramecium* development. **Eric Meyer**.

C38 - 8:30 Analysis of development-specific Piwi proteins in *Paramecium.* **Dominique Furrer**.

C39 - 8:45 Regulation of DNA elimination boundaries requires novel DNA-binding proteins that define heterochromatin domains. **Douglas Chalker**.

C40 - 9:15 Transiently maintained somatic chromosomes of *Tetrahymena* contain development-specific genes. **Yifan Liu**.

NOTES

Friday, July 15 10:00 AM – 12:00 PM
Palms Ballroom Canary 2

Chromatin Structure and Chromatin Modification

Moderators:
Martin Simon, Saarland University, Germany, and
Sean Taverna, John's Hopkins University, MD

Theme: Genomics and Gene Regulation

10:00 Session Introduction.

C41 - 10:15 Cell cycle control of histone methyltransferase TXR1 levels is required NOTESfor proper DNA replication in *Tetrahymena*. **Shan Gao**.

C42 - 10:30 Functional analysis of the Ibd1 protein in *Terahymena thermophila*. **Alejandro Saettone**.

C43 - 10:45 GCN5, ESA1, and CHD1: More Than Just Transcription Regulators? **Joshua Smith**.

C44 - 11:00 MAC-specific Chromatin Remodelers bind a Zinc Finger Protein and Diverse RNAs throughout the *Tetrahymena* Life Cycle. **Eva DeRango-Adem**.

C45 - 11:15 Homology dependent heterochromatin formation by *trans* acting RNAi in *Paramecium tetraurelia*. **Martin Simon**.

C46 - 11:30 The enhancer of zeste like protein Ezl1 is required for scnRNA selection and transcriptional repression of transposon-derived sequences in *Paramecium tetraurelia*. **Andrea Frapporti**.

C47 - 11:45 Proteomic Characterization of *Tetrahymena thermophila* Chromatin Assembly Proteins. **Jyoti Garg**.

Friday, July 15 4:00 PM – 6:00 PM
Palms Ballroom Canary 2

Ciliate Signaling Systems: Signal Transduction, Protein Secretion, and Trafficking

Moderators:
Megan Valentine, University of Vermont, Burlington, and
Sabrice Guerrier, Millsaps College, Jackson, MS

Theme: Intracellular Dynamics

C48 - 4:00 Signaling and Cell Cycle Studies in *Tetrahymena thermophila*. **Ronald Pearlman**.

C49 - 4:30 A potential role for TtSNX4 in macronuclear degradation in *Tetrahymena thermophila* conjugation. **Sabrice Guerrier**.

C50 - 4:45 Characterization of the ubiquitin-like modifier *Urm1* in the Ciliate *Tetrahymena thermophila*. **Jennifer Copeland**.

C51 - 5:00 Early stages of diversification in the Rab GTPase gene family revealed by genomic and functional studies in *Paramecium* species. **Lydia Bright**.

C52 - 5:15 The detection of intracellular cAMP fluctuations – a sensitive in vivo assay to investigate signal transduction pathways in *Tetrahymena thermophila*. **Daniel Romero**.

C53 - 5:30 Polycystin-2 (Pkd2) and its unexpected role in Mg^{2+} permeability in *Paramecium*. **Megan Valentine**.

C54 - 5:45 Whole genome sequencing of a *Tetrahymena* mutant reveals that VPS8, a subunit of the CORVET complex, is essential for biogenesis of mucocysts. **Daniela Sparvo**

Friday, July 15 7:30 PM – 9:30 PM
Palms Ballroom Sago/Sabal/Royal

Development and Evolution Joint Plenary Session

Moderator: Jeannie Lee, Massachusetts General Hospital and Harvard University, Cambridge, MA

7:30 **The Fred Kavli Foundation Distinguished Lecture**: Flexibility and variability in behavior at the gene-environment interface. **Cori Bargmann**.

8:00 Colinear Hox genes regulation in mammals. **Denis Duboule**.

8:30 Of mice, men and birds: meiotic recombination and its evolution. **Molly Przeworski**.

9:00 Fishing for the secrets of stickleback and human evolution. **David Kingsley**.

NOTES

CROSS COMMUNITY WORKSHOPS

Saturday, July 16	**8:0am – 10:00 am**
Descriptions are in the Workshop section and in the app.	
Automated Tracking for Quantitative Phenotyping	Grand Ballroom 3
CRISPR-based Genome Engineering	Crystal Ballroom J2
Using CyVerse Cyberinfrastructure to Enable Data Intensive Research, Collaboration, and Education	Grand Ballroom 1
Model Organisms to Face Environmental Problems	Palms Ballroom Canary 1
Integrating Research and Teaching: Professional Development for Current and Future Faculty Members	St. Thomas
Informatics Resources to Aid the Genetic Dissection of Neural Circuitry	Palms Ballroom Canary 2
Everything you Wanted to Know about Sex	Palms Ballroom Sabal
modMetabolome: Model Organism Metabolomics Consortium Workshop	Grand Ballroom 8A
Feeding Behavior, Nutrition and Metabolism: Emerging Model Organisms	Palms Ballroom Royal
Functional Genomics for Conserved Gene Function Discovery	Crystal Ballroom J1
Cell Competition in Flies and Mice	Crystal Ballroom G1
Developmental Mechanics	Crystal Ballroom G2
Model Systems in Drug Discovery	Grand Ballroom 2
CRISPR/Cas9 - Techniques and applications in Fish, Flies, & Mice	Grand Ballroom 7A
Gene Function Discovery within the IMPC Resource	Crystal Ballroom C
Utilizing NCBI Databases for Model Organism Research	Grand Ballroom 12-14
Systems Genetics in Complex Populations	Crystal Ballroom A-B
An Introduction to Using Galaxy for Genetic Data Analysis	Grand Ballroom 11
The InterMOD Consortium: A common interface to model organism data	Crystal Ballroom N-Q

Saturday, July 16 1:45 PM – 3:45 PM
Palms Ballroom Canary 2

NOTES

Cell Motility: Cilia, Basal Bodies, and Tubulin

Moderators:
Jacek Gaertig, University of Georgia, Athens, and
Anne-Marie Tassin, CNRS, Gif-sur-Yvette, France

Theme: Intracellular Dynamics

C55 - 1:45 Using *Chlamydomonas* to understand cilia assembly. **Susan Dutcher**.

C56 - 2:15 Role of molecular motors and microtubule-binding proteins in cell polarity and regeneration of Stentor. **Tatyana Makushok**.

C57 - 2:30 Kinome analysis in the giant ciliate *Stentor coeruleus*. **Sarah Reiff**.

C58 - 2:45 Forward Genetics in *Tetrahymena thermophila* by a Modified Pooled Linkage: Identification of Causative Mutations Related to Cell Division and Ciliogenesis. **Yuyang Jiang**.

C59 - 3:00 *Paramecium* as a model to study human ciliopathies: study of a transition zone protein, MKS2. **Anne-Marie Tassin**.

C60 - 3:15 Sfr proteins that transiently localize to the basal bodies during assembly. **Mark Winey**.

C61 - 3:30 Stabilizing basal bodies to resist asymmetric ciliary forces. **Chad Pearson**.

Saturday, July 16 4:00 PM – 6:00 PM
Palms Ballroom Canary 2

Cell Biology, Morphogenesis, and Development

Moderators:
Judith Van Houten, University of Vermont, Burlington, and
Chad Pearson, University of Colorado Aurora

Theme: Development and Morphogenesis

C62 - 4:00 Organ sculpting in the *Drosophila* ovary. **David Bilder**.

C63 - 4:30 Answer to the Puzzle: Why *Paramecium* Pawn Mutants Cannot Swim Backward. **Judith Van Houten**.

C64 - 4:45 Mitochondrial contributions to behavioral and developmental phenotypes in *Paramecium tetraurelia*. **Wade Bell**.

C65 - 5:00 Role of Aurora Kinases in Single-Cell Regeneration of *Stentor*. **Athena Lin**.

C66 - 5:15 Transcriptional dynamics of single-cell regeneration in the ciliate *Stentor coeruleus*. **Pranidhi Sood**.

C67 - 5:30 Quantifying HAP2-mediated cellular fusion in a sexual ciliate. **Jennifer Pinello**.

C68 - 5:45 The Role of Extracellular Microvesicles During Conjugation in *Tetrahymena thermophila*. **Eric Cole**.

Saturday, July 16 7:30 PM – 9:30 PM
Palms Ballroom Canary 2

Community Resources: Current and Future Needs

Moderators:
Naomi Stover, Bradley University, Peoria, IL, and
Doug Chalker, Washington University in St. Louis, MO

Theme: New Technology and Resources

C69 - 7:30 TetraMine and Web Apollo at Tetrahymena Genome Database. **Naomi Stover**.

C70 - 7:45 TetraExpress™: A Breakthrough Protein Expression Technology. **Janna Bednenko**.

C71 - 8:00 Construction of a Gateway fluorescent tagging plasmid system for integration into the *btu1-1* locus. **Jeremy Tee**.

8:15 Future of Ciliate Research: opportunities, needs and challenges. Panel discussion with Wei Meio, Naomi Stover, and other representatives from Ciliate Genome Databases, The Tetrahymena Stock Center, and the Tetrahymena Research advisory Board.

Sunday, July 17 8:00 AM – 10:00 AM
Palms Ballroom Canary 2

Ciliates in the Classroom and Undergraduate Ciliate Research Symposium

Moderators:
Emily Wiley, Claremont McKenna College, CA and
Joshua Smith, Missouri State University

Theme: New Technology and Resources

Ciliate biologists have a long history of using the model system to engage undergraduates in their science courses. This workshop will serve as a forum for sharing innovative uses of ciliates to foster original inquiry or enhance conceptual learning in undergraduate classrooms.

8:00 Discussion - Integration of Research Priorities in to the Classroom.

8:30 Discussion - Teaching - Research.

C72 - 9:00 Research and Cloning of *Tetrahymena thermophila UBE2S* in an Introductory Science Lab. **Emily Schmoll**.

C73 - 9:15 Characterization of the SIRT2 and SIRT3 homologs in *Tetrahymena thermophila*. **Kyle Cook**.

C74 - 9:30 Gene expression changes during infection of *Paramecium caudatum* by *Holospora undulata* bacteria. **Catherine Kagemann**.

C75 - 9:45 Towards the Identification of Genomic Targets of MED 31 in *Tetrahymena thermophila*. **Cristina ThuppuMudalige**.

Sunday, July 17 10:30 AM – 12:30 PM
Palms Ballroom Sago/Sabal/Royal

Technology and its Application Joint Plenary Session

Moderator: Phil Hieter, University of British Columbia, Vancouver, Canada

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10:30 The gut microbiota and childhood undernutrition: looking at human development from a microbial perspective. **Jeffrey Gordon**.

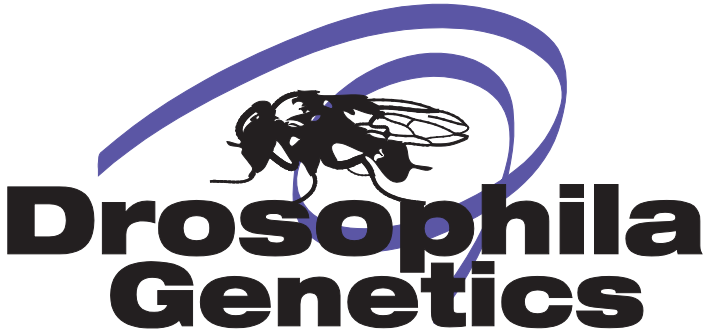
11:00 Synthesis of the yeast genome and beyond. **Jef Boeke**.

11:30 Tomorrow's Table: Organic Farming, Genetics and the Future of Food. **Pamela Ronald**.

12:00 CRISPR-Cas Genome Engineering: Biology, Technology and Ethics. **Jennifer Doudna**. (Pre-recorded talk)

NOTES

57TH ANNUAL DROSOPHILA RESEARCH CONFERENCE



Plenary and Platform Sessions

57th Annual Drosophila Research Conference

SCHEDULE AT-A-GLANCE

Wednesday, July 13		
2:00pm-9:30pm	Speaker Ready Room Open	Hall of Cities - Anaheim
7:00pm-9:00pm	Scientific Session: Opening General Session	Crystal Ballroom M
9:00pm-11:00pm	Opening Mixer with Exhibits	Cypress Ballroom
Thursday, July 14		
7:00am-5:00pm	Speaker Ready Room Open	Hall of Cities -Anaheim
7:45am-10:00am	Genetics and Determinants of Health Joint Plenary Session	Palms Ballroom
8:00am-4:00pm	Exhibits Open	Cypress Ballroom
9:00am-8:00pm	Demo Room: MOD (FlyBase, MGI, SGD, WormBase, Zfin) Demo Room Open	Palms Ballroom Canary 3-4
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4:00pm-6:00pm	Concurrent Scientific Sessions: Cell Division and Growth Control Neural Development Organogenesis & Gametogenesis	 Palms Ballroom Sago Palms Ballroom Sabal Palms Ballroom Royal
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7:45pm-9:45pm	Concurrent Scientific Sessions: Cell Cycle and Cell Death Evolution & Quantitative Genetics I Pattern Formation	 Palms Ballroom Sago Palms Ballroom Sabal Palms Ballroom Royal
10:00pm-11:30pm	*Science Cafe Event	Palms Ballroom Sabal
Friday, July 15		
7:00am-5:00pm	Speaker Ready Room Open	Hall of Cities - Anaheim
8:00am-9:30am	Concurrent Scientific Sessions: Cell Biology & Cytoskeleton Evolution & Quantitative Genetics II Chromatin & Epigenetics	 Palms Ballroom Sago Palms Ballroom Sabal Palms Ballroom Royal
8:00am-4:30pm	Exhibits Open	Cypress Ballroom
9:00am-8:00pm	Demo Room: MOD (FlyBase, MGI, SGD, WormBase, Zfin) Demo Room Open	Palms Ballroom Canary 3-4

** Ticketed Event*

#TAGC16

Friday, July 15 (continued)		
10:00am-12:00pm	Concurrent Scientific Session: Physiology, Organismal Growth & Aging Techniques & Resources RNA Biology	 Palms Ballroom Sago Palms Ballroom Sabal Palms Ballroom Royal
12:00pm-1:30pm	*Editor's Panel Discussion and Roundtable	North Tower - Harbor Beach
1:30pm-3:30pm	Poster Presentations 1:30pm-2:10pm: "A" poster authors present 2:10pm-2:50pm: "B" poster authors present 2:50pm-3:30pm: "C" poster authors present	Cypress Ballroom
1:30pm-3:30pm	GeneticsCareers Center	Cypress Ballroom 1C
2:00pm-2:45pm	GeneticsCareers Workshop - Nailing the Job Talk	Cypress Ballroom 1B
4:00pm-6:00pm	Concurrent Scientific Sessions: Cell Biology & Signal Transduction Models of Human Disease I Regulation of Gene Expression I	 Palms Ballroom Sago Palms Ballroom Sabal Palms Ballroom Royal
6:00pm-7:30pm	*Women in Genetics Panel and Networking	North Tower - Harbor Beach
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Saturday, July 16		
7:00am-5:00pm	Speaker Ready Room Open	Hall of Cities - Anaheim
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8:00am-12:00pm	Exhibits Open	Cypress Ballroom
8:00am-9:00am	Trainee Bootcamp Workshops: Session 1	North Tower
9:00am-10:00am	Trainee Bootcamp Workshops: Session 2	North Tower
10:00am-12:00pm	Poster Presentations 10:00am-11:00am Odd-numbered posters 11:00am-12:00pm Even-numbered posters	Cypress Ballroom *(Posters must be removed by 1pm)*
10:00am-12:00pm	GeneticsCareers Center	Cypress Ballroom 1C
10:30am-11:15am	GeneticsCareers Workshop	Cypress Ballroom 1B
12:15pm-1:45pm	*Mentoring Roundtables #2	North Tower - Harbor Beach
1:45pm-3:45pm	Concurrent Scientific Sessions: Organelles & Trafficking Models of Human Disease II Gene Expression & Chromatin	 Palms Ballroom Sago Palms Ballroom Sabal Palms Ballroom Royal
4:00pm-6:00pm	Workshops: See topics and descriptions in the Workshop Section	Multiple Locations
7:30pm-9:30pm	Concurrent Scientific Session: Immunity and Pathogenesis Neurophysiology and Behavior Stem Cells	 Palms Ballroom Sago Palms Ballroom Sabal Palms Ballroom Royal
Sunday, July 17		
7:55am -8:00am	Poster Awards Presentation	Palms Ballroom
8:00am-10:00am	Scientific Sessions: Plenary Session	Palms Ballroom
10:30am-12:30pm	Technology and its Application Joint Plenary Session	Palms Ballroom

** Ticketed Event*

Wednesday, July 13 7:00 PM – 9:00 PM
Crystal Ballroom M

Opening General Session

Moderator:
Susan Celniker, Lawrence Berkely National Laboratory, CA

Theme: Intracellular Dynamics

7:00 Welcome and Opening Remarks. **Susan Celniker**.

D76 - 7:15 Image Award Presentation. **Michelle Arbeitman**.

D77 - 7:20 Presentation of Larry Sandler Award and Lecture. **Daniella Drummond-Barbosa**.

D78 - 7:25 Larry Sandler Award Winner.

D79 - 7:55 Discovery of the Homeobox Panel featuring Matthew Scott, Michael Levine and William McGinnis.

Thursday, July 14 7:45 AM – 10:00 AM
Palms Ballroom Sago/Sabal/Royal

Genetics and Determinants of Health Joint Plenary Session

Moderator: Lynn Cooley, Yale University, New Haven, CT

7:45 Welcome, Stan Fields, University of Washington, Seattle, GSA President.

7:50 Opening Remarks, Phil Hieter, University of British Columbia and Jeannie Lee, Harvard University, TAGC Organizers.

8:00 Translating Zebrafish Development to the Clinic. **Leonard Zon**.

8:30 Using Drosophila to unravel the mysteries of sleep: when, why and how. **Amita Sehgal**.

9:00 New insights into the pathogenesis and treatment of Marfan syndrome and other presentations of thoracic aortic aneurysm. **Harry Dietz**.

9:30 Accelerating Insights from Basic Genetics. **Francis Collins**.

Thursday, July 14 10:30 AM – 12:30 PM
Palms Ballroom Sago/Sabal/Royal

NOTES

Drosophila Plenary Session I

Moderator:
David Bilder, University of California, Berkeley

D80 - 10:30 Organizing the contraction that changes tissue shape. **Adam Martin**.

D81 - 11:00 Hox Transcription Factors and their Cell type-specific Role in Development. **Ingrid Lohmann**.

D82 - 11:30 Modelling Intellectual Disability Disorders in *Drosophila* - from Genes to Functional Modules and Clinical Applications. **Annette Schenck**.

D83 - 12:00 Hippo Signaling in Growth Control and Beyond. **Duojia Pan**.

Thursday, July 14 4:00 PM – 6:00 PM
Palms Ballroom Sago

Cell Division and Growth Control

Moderators:
Erika Bach, New York University , and
Terry Orr-Weaver, Whitehead Inst, MIT, and
Kari Barla, Univety of Chicago

Theme: Intracellular Dynamics

D84 - 4:00 Centrosomes and the Spindle Assembly Checkpoint cooperatively ensure proper growth and organization of the developing fly brain by promoting genome stability and viability of neural stem cells. **John Poulton**.

D85 - 4:15 The GATOR2 Complex Uses TORC1 Dependent and Independent Pathways to Regulate Cellular Metabolism. **Weili Cai**.

D86 - 4:30 Vamana couples Fat signaling to the Hippo pathway. **Jyoti Misra**.

D87 - 4:45 Genetic regulation of cell-fate plasticity in *Drosophila* imaginal discs. **Melanie Worley**.

D88 - 5:00 Oxidative Stress in Oocytes during Mid-Prophase Induces Premature Loss of Cohesion and Chromosome Segregation Errors. **Adrienne Perkins**.

D89 - 5:15 Yorkie, a transcriptional co-activator that regulates growth, also functions at the cell cortex to promote cytoskeletal tension. **Jiajie Xu**.

D90 - 5:30 Notch signaling promotes cell proliferation and controls cell identity in developing imaginal ring cells. **Sheng-An Yang**.

D91 - 5:45 Regulating the regulator of cell cycle, Xpd. **Rishita Nag**.

Thursday, July 14 4:00 PM – 6:00 PM
Palms Ballroom Sabal

Neural Development

Moderators:
Ron Davis, The Scripps Research Inst., FL and
Krystyna Keleman, HHMI Janelia Research Campus and
Yang Wu, HHMI Janelia Research Campus, VA

Theme: Neuroscience, Systems to Molecules

D92 - 4:00 Formin3 regulates dendritic architecture via microtubule stabilization and is required for somatosensory nociceptive behavior. **Ravi Das**.

D93 - 4:15 Heparan sulfate proteoglycans promote dendritic growth of *Drosophila* sensory neurons through receptor protein tyrosine phosphatase Ptp69D. **Amy Poe**.

D94 - 4:30 *nejire*-mediated transcriptional regulation of dendritic growth and arborization complexity. **Sarah Clark**.

D95 - 4:45 A Functionally Conserved Gene Regulatory Network Module Governing Olfactory Neuron Diversity. **Scott Barish**.

D96 - 5:00 Developmental programs and olfactory receptor signaling in structural and functional development of *fruitless* positive olfactory neurons. **Pelin Volkan**.

D97 - 5:15 Inhibition of mitochondrial calcium entry in mushroom body neurons during pupariation causes memory impairment and neuronal structural defects in adult flies. **Ilaria Drago**.

D98 - 5:30 Syncrip regulates *prospero* stability during neuroblasts division and differentiation. **Lu Yang**.

D99 - 5:45 Spontaneous grooming and other activity phenotypes resulting from Neurofibromin loss of function in Drosophila. **Lanikea King**.

Thursday, July 14 4:00 PM – 6:00 PM
Palms Ballroom Royal

Organogenesis and Gametogenesis

Moderators:
Mark Van Doren, Johns Hopkins University, and
Erika Matunis, Johns Hopkins Medicine, and
Pradeep Bhaskar, Johns Hopkins University

Theme: Stem Cell, Regeneration and Germline

D100 - 4:00 Mediator subunit *skuld* is required sex specifically for ovary development. **Hina Sultana**.

D101 - 4:15 Neuropeptide-dependent control of female germline stem cell proliferation after mating in *Drosophila melanogaster*. **Tomotsune Ameku**.

D102 - 4:30 Electron Transport Chain Remodeling by GSK3 during Oogenesis Connects Nutrient State to Reproduction. **Matt Sieber**.

D103 - 4:45 The mitochondrial outer membrane protein MDI promotes local protein synthesis and mtDNA replication. **Yi Zhang**.

D104 - 5:00 Signaling through the G-protein-coupled receptor Rickets is important for polarity, detachment, and migration of the border cells in *Drosophila*. **Lauren Anllo**.

D105 - 5:15 A mutation in *fat2* uncouples tissue elongation from global tissue rotation in *Drosophila*. **Franziska Aurich**.

D106 - 5:30 Steroid signaling in mature follicles is essential for *Drosophila* ovulation. **Elizabeth Knapp**.

D107 - 5:45 Identification and characterization of an “insect epididymis”. **Timothy Karr**.

Thursday, July 14 7:45 PM – 9:45 PM
Palms Ballroom Sago

Cell Cycle and Cell Death

Moderators:
Arash Bashirullah, Univ. of Wisconsin- Madison, and
Sarah Siegrist, University of Virginia, and
Conor Sipe, University of Virginia

Theme: Intracellular Dynamics

D108 - 7:45 An autonomous requirement of the lysosomal nuclease DNaseII in a caspase-independent primordial germ cell death in the *Drosophila* embryo. **Lama Tarayrah**.

D109 - 8:00 Move or Die: Linking caspases and cell migration and invasion in *Drosophila*. **Eli Arama**.

D110 - 8:15 Lysosome activity controls nurse cell death non-autonomously. **Albert Mondragon**.

D111 - 8:30 Programmed necrosis control germ cell homeostasis during *Drosophila* spermatogenesis. **Bertrand Mollereau**.

D112 - 8:45 Regulation of cell size by variant cell cycles. **Terry Orr-Weaver**.

D113 - 9:00 An inhibitory mono-ubiquitylation of the *Drosophila* initiator caspase Dronc functions in both apoptotic and non-apoptotic pathways. **Hatem Elif Kamber Kaya**.

D114 - 9:15 The *Drosophila* TNF Eiger activates Dronc-dependent necrosis when apoptosis is blocked. **Mingli Li**.

D115 - 9:30 Enhancer of Polycomb represses transcription of Cyclin B during male germ cell differentiation. **Lijuan Feng**.

Thursday, July 14 7:45 PM – 9:45 PM
Palms Ballroom Sabal

Evolution and Quantitative Genetics I

Moderators:
Marta Wayne, University of Florida, and
Anthony Long, Univ. of California, Irvine, and
Sharon Greenblum, Stanford University

Theme: Evolution and Quantitative Biology

D116 - 7:45 Towards a Genetic Understanding of Behavior Evolution: An Ion-Channel Gene Causes Natural Courtship Song Variation in *Drosophila*. **Yun Ding**.

D117 - 8:00 A delicate balance of mating preference in *Drosophila melanogaster*. **Akihiko Yamamoto**.

D118 - 8:15 Mechanism of hybrid incompatibility between two subspecies of *Drosophila pseudoobscura*. **Christopher Large**.

D119 - 8:30 Recurrent changes to *pdm3* drive convergent evolution of female-limited polymorphism in the *Drosophila montium* subgroup. **Emily Delaney**.

D120 - 8:45 Evolution of the Sex Peptide Network: Lineage-specific adaptive evolution and gene duplication. **Meaghan McGeary**.

D121 - 9:00 Investigating the female's role in sperm competition in *Drosophila melanogaster*. **Simone White**.

D122 - 9:15 Missing variation revealed by deep sequencing of individuals in a population of *D. simulans*. **Sarah Signor**.

D123 - 9:30 Mutational patterns in *Drosophila melanogaster*. **Zoe June Assaf**.

Thursday, July 14 7:45 PM – 9:45 PM
Palms Ballroom Royal

NOTES

Pattern Formation

Moderators:
Ana Busturia, Centro de Biología Molecular Severo Ochoa, and
Liz Gavis, Princeton University, and
Mo Weng, Princeton University

Theme: Development and Morphogenesis

D124 - 7:45 Cell fate transformations in sine oculis eye-specific LOF mutants obscures direct regulatory interactions within the retinal determination network. **Bonnie Weasner**.

D125 - 8:00 Genome-wide analyses of Hox target genes in *Drosophila melanogaster*. **Narendra Singh**.

D126 - 8:15 Manipulating fate with light – an optogenetics tool to understand Bcd function. **Anqi Huang**.

D127 - 8:30 Regulation of Dpp signaling by O-linked glycosylation. **Matthew Moulton**.

D128 - 8:45 A Transcription Factor code controlling serial specification of muscle identities in *Drosophila* . **Alain Vincent**.

D129 - 9:00 Tracking morphogens down: Uncovering the Dpp morphogen gradient. **Pablo Sánchez Bosch**.

D130 - 9:15 Flies have 11 abdominal segments (as suggested by the bithorax complex). **Welcome Bender**.

D131 - 9:30 Spatial patterning of the *Drosophila* ventral epithelium is important for proper tissue shape. **Natalie Heer**.

Friday, July 15 8:00 AM – 9:30 AM
Palms Ballroom Sago

Cell Biology and Cytoskeleton

Moderators:
Nasser Rusan, National Institutes of Health, and
Rodrigo Fernandez-Gonzalez, Univ. of Toronto, and
Todd Schoborg , National Heart, Lung, and Blood Institute, NIH

Theme: Intracellular Dynamics

D132 - 8:00 An actomyosin-Arf-GEF negative feedback loop for tissue plasticity. **Junior West**.

D133 - 8:15 E-Cadherin decrease transmits proliferative-dependent forces via actin-myosin flows. **Diana Pinheiro**.

D134 - 8:30 A gradient of Rac activity determines protrusion form and position in a 3-dimensional epithelial sheet. **Marios Georgiou**.

D135 - 8:45 A STRIPAK-like complex regulates axonal transport of autophagosomes and dense core vesicles by modulating PP2A activity. **Amanda Neisch**.

D136 - 9:00 Centrosomal proteins are required for autophagy to maintain neural homeostasis. **Yiming Zheng**.

D137 - 9:15 Centrosome-pole cohesion requires Abnormal Spindle and Calmodulin to ensure proper centrosome inheritance in neural stem cells but is dispensable for brain size. **Todd Schoborg**.

Friday, July 15 8:00 AM – 9:30 AM
Palms Ballroom Sabal

Evolution and Quantitative Genetics II

Moderators:
Marta Wayne, University of Florida, and
Anthony Long, Univ. of California, Irvine, and
Sharon Greenblum, Stanford University

Theme: Evolution and Quantitative Biology

D138 - 8:00 Local Adaptation and the Establishment of Inversions in Natural Populations of *Drosophila pseudoobscura* Through the Indirect Effects of Suppressed Recombination. **Zach Fuller**.

D139 - 8:15 *Cis*-regulatory basis of expression divergence between recent gene duplicates. **Kohtaro Tanaka**.

D140 - 8:30 Beyond the tip of the iceberg: New *Drosophila* reference genomes reveal novel structural variants. **Mahul Chakraborty**.

D141 - 8:45 Functional and evolutionary consequences of epigenetically silenced transposable elements in euchromatin. **Grace Lee**.

D142 - 9:00 Co-evolution within the nuclear branch of the *Drosophila* piRNA pathway. **Swapnil Parhad**.

D143 - 9:15 Lineage-specific rapid gains of satellite DNA in *Drosophila*. **Kevin Wei**.

Friday, July 15 8:00 AM – 9:30 AM
Palms Ballroom Royal

NOTES

Chromatin and Epigenetics

Moderators:
Gary Karpen, Lawrence Berkeley Natl. Laboratory, and
Amanda Larracuente, Univ. of Rochester, and
Aniek Janssen, Lawrence Berkeley National Laboratory

Theme: Genomics and Gene Regulation

D144 - 8:00 Repetitious elements drive silencing in the *Drosophila melanogaster* genome through heterochromatin formation. **Sarah Elgin**.

D145 - 8:15 Establishment and maintenance of heritable patterns of chromatin structure during early embryogenesis. **Shelby Blythe**.

D146 - 8:30 Deciphering double strand break repair in heterochromatin and euchromatin using an in vivo *Drosophila* model. **Aniek Janssen**.

D147 - 8:45 The *Drosophila* Y chromosome acts as a heterochromatin sink and contributes to sex-specific aging. **Emily Brown**.

D148 - 9:00 Progenitor expansion and competence are controlled by Lsd1, PRC2 and non-coding RNAs. **Ming-Chia Lee**.

D149 - 9:15 A somatic piRNA pathway in the *Drosophila* fat body ensures metabolic homeostasis and normal lifespan. **Stephen Helfand**.

Friday, July 15 10:00 AM – 12:00 PM
Palms Ballroom Sago

Physiology, Organismal Growth and Aging

Moderators:
Ting Xie, Stowers Institute for Medical Research, MO and
Jason Tennessen, Indiana University Bloomington, and
Matt Sieber, Carnegie Institute for Science
Sponsored by the
National Institute on Aging

Theme: Development and Morphogenesis

D150 - 10:00 The sexual identity of adult intestinal stem cells controls organ size and plasticity. **Bruno Hudry**.

D151 - 10:15 Mechanisms underlying sexually dimorphic growth. **Annick Sawala**.

D152 - 10:30 Body weight dependent autophagy induction mediates metamorphic timing control under nutrient restriction in Drosophila. **Xueyang Pan**.

D153 - 10:45 A SANT-like domain-containing protein regulates lipid droplet size. **Xun Huang**.

D154 - 11:00 Identification and Characterization of a Novel Gene that Regulates Mitochondrial DNA Replication. **Jessica Tang**.

D155 - 11:15 Circadian mutants lacking either *period* or *timeless* have an extended longevity phenotype due to altered mitochondrial function. **Michele Shirasu-Hiza**.

D156 - 11:30 Histidine metabolism perturbations inhibit neural tumours dependent on Myc-mediated dedifferentiation. **Francesca Froldi**.

D157 - 11:45 Ecology of the gut microbiome determines fly health. **William Ludington**.

Friday, July 15 10:00 AM – 12:00 PM
Palms Ballroom Sabal

Techniques and Resources

Moderators:
Norbert Perrimon, Harvard Medical School, and
Kate O'Connor-Giles, Univ. of Wisconsin- Madison, and
Benjamin Housden, Harvard Medical School

Theme: New Technology and Resources

D158 - 10:00 Genome-wide spatial-temporal gene expression pattern prediction in Drosophila melanogaster embryonic development. **Jian Zhou**.

D159 - 10:15 Measuring exercise in *Drosophila:* Characterization of the Rotating Exercise Quantification System (R.E.Q.S.). **Louis Watanabe**.

D160 - 10:30 Features and Applications of FlyCircuit Database – From Fluorescent Images to the Drosophila Connectome. **Chi-Tin Shih**.

D161 - 10:45 High-speed imaging of neural spiking and dendritic dynamics in awake flies with a fluorescent voltage sensor. **Cheng Huang**.

D162 - 11:00 Effective knockdown of *Drosophila* long noncoding RNAs by CRISPR interference. **Ji-Long Liu**.

D163 - 11:15 Optimized synthetic lethal screening approaches for drug target discovery in *Drosophila*. **Benjamin Housden**.

D164 - 11:30 CRISPR/Cas9-based tools for *in vivo* transcriptional activation and repression in *Drosophila*. **Ben Ewen-Campen**.

D165 - 11:45 A novel 96 well system for housing, manipulating and feeding flies. **Maria Jaime**.

Friday, July 15 10:00 AM – 12:00 PM
Palms Ballroom Royal

NOTES

RNA Biology

Moderators:
Howard Lipshitz, Univ. of Toronto, and
Ben Brown, Lawrence Berkeley Natl. Laboratory, and
John Laver, University of Toronto

Theme: Genomics and Gene Regulation

D166 - 10:00 Neuronal 3'UTR extension: ELAV links Pol II pausing to alternative polyadenylation. **Valerie Hilgers**.

D167 - 10:15 Mutant rescue by inhibition of nonsense mediated decay. **Mark Metzstein**.

D168 - 10:30 The *Drosophila* hnRNP F/H homolog, Glorund, Uses Two Distinct RNA Binding Modes to Differentially Regulate Its Targets. **Elizabeth Gavis**.

D169 - 10:45 The TREX complex suppresses piRNA precursor splicing and promotes assembly of piRNA cluster heterochromatin. **Gen Zhang**.

D170 - 11:00 From egg to adult: piRNA-mediated silencing throughout germline development in *Drosophila melanogaster*. **Pauline Marie**.

D171 - 11:15 Nano-exons in *Drosophila*. **Stephen Mount**.

D172 - 11:30 Identifying genetic modifiers of FUS toxicity in a drosophila model of ALS. **Udai Pandey**.

D173 - 11:45 A high-throughput pipeline for the production of synthetic antibodies for analysis of ribonucleoprotein complexes. **John Laver**.

Friday, July 15 4:00 PM – 6:00 PM
Palms Ballroom Sago

Cell Biology and Signal Transduction

Moderators:
Margot Quinlan, Univ. of California, Los Angeles,
Lucy O'Brien, Stanford University, and
Parthive Patel, German Cancer Research Center (DKFZ) - University of Heidelberg (ZMBH) Alliance

Theme: Intracellular Dynamics

D174 - 4:00 Intercellular Ca^{2+} transients integrate spatiotemporal morphogenetic patterning in the *Drosophila* wing imaginal disc. **Qinfeng Wu**.

D175 - 4:15 Rewiring regulatory feedback in BMP morphogen signaling. **Jennifer Gawlik**.

D176 - 4:30 Minibrain and Wings apart control organ growth and tissue patterning through downregulation of Capicua. **Liu Yang**.

D177 - 4:45 Muscle derived TGF-β growth factor Myoglianin regulates size of imaginal wing discs. **Ambuj Upadhyay**.

D178 - 5:00 The *Drosophila* tumor suppressor Tid/Alg3 controls TNFR/JNK signaling through glycosylation. **Geert de Vreede**.

D179 - 5:15 A kinome-wide RNAi screen in *Drosophila* glia and human GBM models reveals Stk17A drives neoplastic glial proliferation. **Joanna Wardwell-Ozgo**.

D180 - 5:30 Wnt proteins serve as directional cues for the Par-complex polarity and the *Drosophila* nervous tissue growth. **Shigeki Yoshiura**.

D181 - 5:45 Motile stem cells exhibit tissue-level spatial order during homeostasis but not growth of the adult *Drosophila* midgut. **XinXin Du**.

Friday, July 15 4:00 PM – 6:00 PM
Palms Ballroom Sabal

Drosophila Models of Human Disease I

Moderators:
Hugo Bellen, Baylor College of Medicine, and
Hannele Ruohola-Baker, University of Washington, and
Rebecca Kreipke, University of Washington

Theme: Disease Models and Aging

D182 - 4:00 Identification of Alzheimer's disease as a neurodegenerative laminopathy. **Bess Frost**.

D183 - 4:15 Defects in synaptic vesicle endocytosis are caused by TDP-43 dependent translation inhibition in a Drosophila model of ALS. **Alyssa Coyne**.

D184 - 4:30 Glial expression of spen confers a Notch-dependent resistance to paraquat. **Nathalie Davoust**.

D185 - 4:45 The ecdysone and JAK/STAT pathways regulate proper morphogenetic movement of squamous cells by suppressing Notch-induced Broad. **Dongyu Jia**.

D186 - 5:00 Selective removal of deletion-bearing mitochondrial DNA in heteroplasmic muscle. **Nikolay Kandul**.

D187 - 5:15 A *Drosophila* Model for XX Gonadal Dysgenesis. **Offer Gerlitz**.

D188 - 5:30 Mechanism of Ethanol Tolerance: ChIP-seq to identify the signature of ethanol tolerance genes. **Nigel Atkinson**.

D189 - 5:45 A *Drosophila* Model of Essential Tremor. **Lorraine Clark**.

Friday, July 15 4:00 PM – 6:00 PM
Palms Ballroom Royal

NOTES

Regulation of Gene Expression I

Moderators:
Julie Zeitlinger, Stowers Institute for Medical Research, and
Michele Markstein, University of Massachusetts, and
Robin Fropf, Stowers Institute for Medical Research

Theme: Genomics and Gene Regulation

D190 - 4:00 Modulation of bursting kinetics generates specific gene expression rates in the early embryo. **Shawn Little**.

D191 - 4:15 A fully synthetic transcriptional enhancer platform for study of regulatory protein function in a multicellular eukaryote. **Justin Crocker**.

D192 - 4:30 Developmental Regulomes – Resolving Enhancer-Protein Interactions with Temporal and Tissue-Specificity. **Robert Zinzen**.

D193 - 4:45 Application of ChIP-nexus to map transcription factors during development. **Robin Fropf**.

D194 - 5:00 Natural variation in binding site affinity controls stochastic gene expression in the fly eye. **Caitlin Anderson**.

D195 - 5:15 Towards a 4D understanding of chromatin architecture and transcriptional regulation. **Hongtao Chen**.

D196 - 5:30 Zelda pioneers early enhancers during genome activation. **Christine Rushlow**.

D197 - 5:45 Highly accurate prediction of early anterior-posterior enhancer sequences from ChIP-seq data. **Hamutal Arbel**.

Friday, July 15 7:30 PM – 9:30 PM
Palms Ballroom Sago/Sabal/Royal

Development and Evolution Joint Plenary Session

Moderator: Jeannie Lee, Massachusetts General Hospital and Harvard University, Cambridge, MA

7:30 **The Fred Kavli Foundation Distinguished Lecture:** Flexibility and variability in behavior at the gene-environment interface. **Cori Bargmann**.

8:00 Colinear Hox genes regulation in mammals. **Denis Duboule**.

8:30 Of mice, men and birds: meiotic recombination and its evolution. **Molly Przeworski**.

9:00 Fishing for the secrets of stickleback and human evolution. **David Kingsley**.

NOTES

CROSS COMMUNITY WORKSHOPS

Saturday, July 16	**8:00am – 10:00 am**
Descriptions are in the Workshop section and in the app.	
Automated Tracking for Quantitative Phenotyping	Grand Ballroom 3
CRISPR-based Genome Engineering	Crystal Ballroom J2
Using CyVerse Cyberinfrastructure to Enable Data Intensive Research, Collaboration, and Education	Grand Ballroom 1
Model Organisms to Face Environmental Problems	Palms Ballroom Canary 1
Integrating Research and Teaching: Professional Development for Current and Future Faculty Members	St. Thomas
Informatics Resources to Aid the Genetic Dissection of Neural Circuitry	Palms Ballroom Canary 2
Everything you Wanted to Know about Sex	Palms Ballroom Sabal
modMetabolome: Model Organism Metabolomics Consortium Workshop	Grand Ballroom 8A
Feeding Behavior, Nutrition and Metabolism: Emerging Model Organisms	Palms Ballroom Royal
Functional Genomics for Conserved Gene Function Discovery	Crystal Ballroom J1
Cell Competition in Flies and Mice	Crystal Ballroom G1
Developmental Mechanics	Crystal Ballroom G2
Model Systems in Drug Discovery	Grand Ballroom 2
CRISPR/Cas9 - Techniques and applications in Fish, Flies, & Mice	Grand Ballroom 7A
Gene Function Discovery within the IMPC Resource	Crystal Ballroom C
Utilizing NCBI Databases for Model Organism Research	Grand Ballroom 12-14
Systems Genetics in Complex Populations	Crystal Ballroom A-B
An Introduction to Using Galaxy for Genetic Data Analysis	Grand Ballroom 11
The InterMOD Consortium: A common interface to model organism data	Crystal Ballroom N-Q

Saturday, July 16 1:45 PM – 3:45 PM
Palms Ballroom Sago

Organelles and Trafficking

Moderators:
Helmut Kramer, UT Southwestern Medical Center, and
Amy Kiger, Univ. of California San Diego, and
Kari Lenhart, University of Pennsylvania School of Medicine

Theme: Development and Morphogenesis

D198 - 1:45 ESCRTs and intraluminal vesicles play novel roles in controlling exosome heterogeneity, late endosomal acidification and regulated secretion. **Benjamin Kroeger**.

D199 - 2:00 Mitophagy is dispensable for axonal maintenance during normal aging in *Drosophila*. **Yanshan Fang**.

D200 - 2:15 Endosomal Microautophagy: a genetic model in *Drosophila*. **Anindita Mukherjee**.

D201 - 2:30 Mechanisms of rapid, membrane-dependent furrow formation in the early *Drosophila* embryo. **James Blankenship**.

D202 - 2:45 The Voltage Gated Chloride Channels CLC-b and CLC-c play critical roles in lifespan and cell viability respectively. **Richard Burke**.

D203 - 3:00 A screen for systemic growth regulators reveals *hobbit*, a novel and conserved regulator of insulin secretion. **Sarah Neuman**.

D204 - 3:15 Spastic paraplegia proteins help model the axonal endoplasmic reticulum network in *Drosophila*. **Cahir O'Kane**.

D205 - 3:30 Asymmetric Endoplasmic Reticulum partitioning is dependent on Jagunal in the early *Drosophila* embryo. **Blake Riggs**.

Saturday, July 16 1:45 PM – 3:45 PM
Palms Ballroom Sabal

Drosophila Models of Human Disease II

Moderators:
Hugo Bellen, Baylor College of Medicine, and
Hannele Ruohola-Baker, University of Washington, and
Hsiao-Tuan Chao , Texas Childrens Hospital, Clinical Care Center

Theme: Disease Models and Aging

D206 - 1:45 Inhibiting lipid transfer between neurons and glia by modulating lactate levels delays neurodegeneration. **Lucy Liu**.

D207 - 2:00 Mitochondrial-nuclear incompatibility during oogenesis causes embryonic lethality. **Chunyang Zhang**.

D208 - 2:15 *dSod1* knock-in mutations cause ALS-like phenotypes in *Drosophila*. **Aaron Held**.

D209 - 2:30 JmjC demethylases regulate resistance and tolerance to alcohol in *Drosophila*. **Jorge Pinzon**.

D210 - 2:45 Loss of Nardilysin, a chaperone for α-Ketoglutarate Dehydrogenase, causes neurodegeneration in flies and humans and promotes mTORC1 activation. **Wan Yoon**.

D211 - 3:00 A multi-omics strategy for fly models of human disease in exposure biology. **James Brown**.

D212 - 3:15 Using the DGRP to identify gene networks associated with autism-like behaviors. **Lawrence Reiter**.

D213 - 3:30 Defects in phagocytosis by glia and immune cells in a *Drosophila* model of Fragile X syndrome. **Michele Shirasu-Hiza**.

Saturday, July 16 1:45 PM – 3:45 PM
Palms Ballroom Royal

NOTES

Gene Expression and Chromatin

Moderators:
Julie Zeitlinger, Stowers Institute for Medical Research, and
Michele Markstein, University of Massachusetts, and
David Doupé, Harvard Medical School

Theme: Genomics and Gene Regulation

D214 - 1:45 Epigenetic control of ribosome biogenesis homeostasis. **Jérôme Deraze**.

D215 - 2:00 Specialized Ribosomes: eRpL22 paralogue-specific ribosomes translate specific mRNAs in the *Drosophila* testis. **Catherine Mageeney**.

D216 - 2:15 Translational compensation of segmental aneuploidy in *Drosophila melanogaster*. **Zhenguo Zhang**.

D217 - 2:30 When One Plus One Does Not Equal Two: Some Tandem Gene Duplicates are Overactive. **David Loehlin**.

D218 - 2:45 A double assurance mechanism controls enhancer-promoter specificity at the *hunchback* locus. **Jia Ling**.

D219 - 3:00 Tailless repression sets pair-rule stripes and gap domains. **Luiz Andrioli**.

D220 - 3:15 Enzymatic modules of the SAGA chromatin-modifying complex play distinct roles in *Drosophila* gene expression and development. **Xuanying Li**.

D221 - 3:30 An ancient yet flexible *cis*-regulatory architecture allows localized Hedgehog tuning by *patched/Ptch1*. **Scott Barolo**.

Drosophila Workshops	
Saturday, July 16	4:00pm – 6:00pm
Descriptions are in the Workshop section and in the app.	
Spotlight on Undergraduate Research using Genetics Research Models	North Tower Aruba
The Ecdysone Workshop	Palms Ballroom Canary 4
Genetic and Genomic Models of Polyploidy	Crystal Ballroom A-B
Drosophila Microbiota	Crystal Ballroom M

NOTES

Saturday, July 16 7:30 PM – 9:30 PM
Palms Ballroom Sago

Immunity and Pathogenesis

Moderators:
Nathalie Franc, The Scripps Research Institute, and
Pr. Jean-Marc Reichhart, IUF-UdS , and
Dali Ma, Institute de Génomique Fonctionnelle de Lyon

Theme: Disease Models and Aging

D222 - 7:30 Hemocytes as key regulators of respiratory system immunity in adult *Drosophila melanogaster*. **Katja Brückner**.

D223 - 7:45 Modulation of occluding junctions alters the hematopoietic stem cell microenvironment to trigger immune activation in *Drosophila*. **Rohan Khadilkar**.

D224 - 8:00 The TEAD family transcription factor Scalloped regulates blood progenitor maintenance and proliferation in *Drosophila* through PDGF/VEGFR receptor (Pvr) signaling. **Julian Martinez-Agosto**.

D225 - 8:15 Microbial modulation of host lipid metabolism: lessons from *Drosophila*. **Chun Nin (Adam) Wong**.

D226 - 8:30 A GWAS Analysis of Genetic Variation in *Drosophila melanogaster* Pathogen Susceptibility. **Jonathan Wang**.

D227 - 8:45 Invasion dynamics in the fly gut microbiome. **Benjamin Obadia**.

D228 - 9:00 Molecular analyses of immune-suppressive virus-like particles from a *Drosophila* parasitic wasp suggest cell-specific activities and a hybrid biotic particle nature. **Mary Ellen Heavner**.

D229 - 9:15 Host-produced Eiger/TNF and the bacterial type 4 secretion system enable susceptibility of *Drosophila melanogaster* to *Coxiella burnetii* infection. **Alan Goodman**.

Saturday, July 16 7:30 PM – 9:30 PM
Palms Ballroom Sabal

Neurophysiology and Behavior

Moderators:
Ron Davis, Scripps Research Institute, and
Krystyna Keleman, Janelia Research Campus, HHMI, and
Jacob Berry, Scripps Research Institute

Theme: Neuroscience, Systems to Molecules

D230 - 7:30 Postprandial sleep mechanics in *Drosophila*. **Keith Murphy**.

D231 - 7:45 A novel behavioural paradigm of interval timing in *Drosophila*. **Woo Jae Kim**.

D232 - 8:00 Scribble Scaffolds a signalosome for active forgetting. **Isaac Cervantes Sandoval**.

D233 - 8:15 The detection of bitter and sweet compounds by the evolutionarily conserved sweet clade in *Drosophila*. **Arun Kumar**.

D234 - 8:30 A peptidergic pathway critical to satiety responses in Drosophila. **Soohong Min**.

D235 - 8:45 A genetically tractable platform for identifying regulators of acute and chronic pain. **Seol Hee Im**.

D236 - 9:00 The molecular and cellular basis of pharyngeal taste in *Drosophila*. **Yu-Chieh Chen**.

D237 - 9:15 Ionotropic Receptors mediate thermo- and hygro-sensation in *Drosophila*. **Paul Garrity**.

Saturday, July 16 7:30 PM – 9:30 PM
Palms Ballroom Royal

NOTES

Stem Cells

Moderators:
Tor Erik Rusten, Oslo University Hospital, and
Daniela Drummond-Barbosa, Johns Hopkins Bloomberg School of Public Health, and
Ming-Chia Lee, Carnegie Institution for Science

Theme: Stem Cell, Regeneration and Germline

D238 - 7:30 A Potential Role for DNA Replication in Establishing Distinct Epigenomes. **Matthew Wooten**.

D239 - 7:45 Sensing Respiratory Gases for the Control of the Hematopoietic System. **Bumsik Cho**.

D240 - 8:00 Opposite temporal gradients of Imp and Syp govern senescence of neural stem cells via distinct effectors. **Ching-Po Yang**.

D241 - 8:15 A Transcriptional Network Specifies The Intestinal Stem Cell Fate In *Drosophila* Adult Midgut. **Qing Lan**.

D242 - 8:30 Niche Appropriation by *Drosophila* Intestinal Stem Cell Tumors. **Parthive Patel**.

D243 - 8:45 The niche ligand-receptor directly orients the spindle in *Drosophila* male germline stem cells. **Cuie Chen**.

D244 - 9:00 Somatic cell encystment promotes abscission in germline stem cells after a regulated block in cytokinesis. **Kari Lenhart**.

D245 - 9:15 An intercellular E-cadherin-EGFR relay maintains organ size during renewal by coupling cell division and death. **Jackson Liang**.

Sunday, July 17 7:55 AM – 10:00 AM
Palms Ballroom Sago/Sabal/Royal

Drosophila Plenary Session

Moderator:
Nancy Bonini, University of Pennsylvania, Philadelphia

D246 - 7:55 Poster Awards Presentation. **Ross Cagan**.

D247 - 8:00 Coordination of neuroepithelial specification and neurogenesis modes in the *Drosophila* visual system. **Iris Salecker**.

D248 - 8:30 Growth coordination mechanisms during *Drosophila* development. **Pierre Leopold**.

D249 - 9:00 Networking at the nuclear periphery: Contributions of *Drosophila* LEM domain proteins. **Pamela Geyer**.

D250 - 9:30 Molecular genetics of sex-specific evolutionary innovations. **Artyom Kopp**.

Sunday, July 17 10:30 AM – 12:30 PM
Palms Ballroom Sago/Sabal/Royal

Technology and its Application Joint Plenary Session

Moderator: Phil Hieter, University of British Columbia, Vancouver, Canada

10:30 The gut microbiota and childhood undernutrition: looking at human development from a microbial perspective. **Jeffrey Gordon**.

11:00 Synthesis of the yeast genome and beyond. **Jef Boeke**.

11:30 Tomorrow's Table: Organic Farming, Genetics and the Future of Food. **Pamela Ronald**.

12:00 CRISPR-Cas Genome Engineering: Biology, Technology and Ethics. **Jennifer Doudna**. (Pre-recorded talk)

Meeting Organizers

Susan Celniker, Chair
David Bilder
Nancy Bonini
Ross Cagan

Fly Board

David Bilder	President
Laura Johnston	President-elect
Ken Irvine	Past-President (2014)
Amy Bejsovec	Past-President (2013)
Michael O'Connor	Past-President (2012)
Deborah Andrew	Treasurer

Regional Representatives

Name	Region
Esther Verheyen	Canada
Scott Barolo	Great Lakes
Sarah Certel	Mountain
Andrea Page-McCaw	Southeast
Angelika Stathopoulos	California
Michael Galko	Heartland
Giovanni Bosco	New England
Jessica Triesman	Mid-Atlantic
Bing Zhang	Midwest

Primarily Undergraduate Institution Representative

Name
Alexis Nagengast

International Representatives

Name	Region
Gary Hime	Australia/Oceania
Shigeo Hiyashi	Asia
Daniel St. Johnston	Europe
Mariana Melani	Latin America

MOUSE GENETICS 2016

Plenary and Platform Sessions

Mouse Genetics 2016

SCHEDULE AT-A-GLANCE

Wednesday, July 13		
2:00pm-9:30pm	Speaker Ready Room Open	Hall of Cities - Anaheim
7:00pm-9:00pm	Scientific Session: International Resources	Crystal Ballroom G1
9:00pm-11:00pm	Opening Mixer with Exhibits	Cypress Ballroom
Thursday, July 14		
7:00am-5:00pm	Speaker Ready Room Open	Hall of Cities -Anaheim
7:45am-10:00am	Genetics and Determinants of Health Joint Plenary Session	Palms Ballroom
8:00am-4:00pm	Exhibits Open	Cypress Ballroom
9:00am-8:00pm	Demo Room: MOD (FlyBase, MGI, SGD, WormBase, Zfin) Demo Room Open	Palms Ballroom Canary 3-4
10:30am-12:30pm	Scientific Session: Comparative Genomics, Computational Methods and Evolution	Crystal Ballroom G1
12:30pm-1:30pm	Mentoring Roundtables #1	North Tower - Harbor Beach
12:30pm-1:30pm	Speaking Up for Genetics and Model Organism Research	Crystal Ballroom H
1:30pm-3:30pm	Poster Presentations 1:30pm-2:30pm: Even-numbered poster 2:30pm-3:30pm: Odd-numbered posters	Cypress Ballroom
1:30pm-3:30pm	GeneticsCareers Center and Job Fair	Cypress Ballroom 1C
4:00pm-6:00pm	Scientific Session: Development	Crystal Ballroom G1
4:00pm-6:00pm	Plenary Session and Workshop for Undergraduate Researchers	North Tower - Sawgrass
7:45pm-9:45pm	Scientific Session: Translational and Systems Genetics	Crystal Ballroom G1
10:00pm-11:30pm	*Science Cafe Event	Palms Ballroom Sabal
Friday, July 15		
7:00am-5:00pm	Speaker Ready Room Open	Hall of Cities - Anaheim
8:00am-9:30am	Scientific Session: Technological Innovations	Crystal Ballroom G1
8:00am-4:30pm	Exhibits Open	Cypress Ballroom
9:00am-8:00pm	Demo Room: MOD (FlyBase, MGI, SGD, WormBase, Zfin) Demo Room Open	Palms Ballroom Canary 3-4
10:00am-12:00pm	Scientific Session: Human Disease Models 1	Crystal Ballroom G1
12:00pm-1:30pm	*Editor's Panel Discussion and Roundtable	North Tower - Harbor Beach
1:30pm-3:30pm	Poster Presentations 1:30pm-2:10pm: "A" poster authors present 2:10pm-2:50pm: "B" poster authors present 2:50pm-3:30pm: "C" poster authors present	Cypress Ballroom
1:30pm-3:30pm	GeneticsCareers Center	Cypress Ballroom 1C

** Ticketed Event*

#TAGC16

Friday, July 15 (continued)		
2:00pm-2:45pm	GeneticsCareers Workshop - Nailing the Job Talk	Cypress Ballroom 1B
4:00pm-6:00pm	Scientific Session: Epigenetics	Crystal Ballroom G1
6:00pm-7:30pm	*Women in Genetics Panel and Networking	North Tower - Harbor Beach
7:30pm-9:30pm	Development and Evolution Joint Plenary Session	Palms Ballroom
Saturday, July 16		
7:00am-5:00pm	Speaker Ready Room Open	Hall of Cities - Anaheim
8:00am-10:00am	Workshops: See topics and descriptions in the Workshop Section	Multiple locations
8:00am-12:00pm	Exhibits Open	Cypress Ballroom
8:00am-9:00am	Trainee Bootcamp Workshops: Session 1	North Tower
9:00am-10:00am	Trainee Bootcamp Workshops: Session 2	North Tower
10:00am-12:00pm	Poster Presentations 10:00am-11:00am Odd-numbered posters 11:00am-12:00pm Even-numbered posters	Cypress Ballroom *(Posters must be removed by 1pm)*
10:00am-12:00pm	GeneticsCareers Center	Cypress Ballroom 1C
10:30am-11:15am	GeneticsCareers Workshop	Cypress Ballroom 1B
12:15pm-1:45pm	*Mentoring Roundtables #2	North Tower - Harbor Beach
1:45pm-3:45pm	Scientific Session: Cancer and Immunology	Crystal Ballroom G1
4:00pm-6:00pm	Scientific Session: Rosa Beddington Lecture Stem Cells	Crystal Ballroom G1
6:00pm-6:30pm	IMGS Business Meeting	Crystal Ballroom G1
Sunday, July 17		
8:00am-10:00am	Scientific Session: Human Disease Models II	Crystal Ballroom G1
10:30am-12:30pm	Technology and its Application Joint Plenary Session	Palms Ballroom

** Ticketed Event*

Wednesday, July 13 7:00 PM – 9:00 PM
Crystal Ballroom G1

International Resources

Moderator:
Thomas Keane, Sanger Institute, Cambridge, UK

Theme: New Technology and Resources

M251 - 7:00 Building the first comprehensive functional catalogue of a mammalian genome. **Martin Hrabé de Angelis**.

M252 - 7:15 Large-scale discovery of embryonic lethal phenotypes in mice. **Stephen Murray**.

M253 - 7:30 3D image analysis of embryonic lethal mutations: An IMPC/KOMP2 resource. **Mary Dickinson**.

M254 - 7:45 The DMDD programme: an online database of embryonic lethal mouse gene mutations. **Tim Mohun**.

M255 - 8:00 GENCODE: using new technologies to improve reference mouse genome annotation. **Mark Thomas**.

M256 - 8:15 Trainee Talk.

M257 - 8:30 Trainee Talk.

M258 - 8:45 Beyond the spreadsheet. **Kenneth Manly**.

Thursday, July 14 7:45 AM – 10:00 AM
Palms Ballroom Sago/Sabal/Royal

Genetics and Determinants of Health Joint Plenary Session

Moderator: Lynn Cooley, Yale University, New Haven, CT

7:45 Welcome, Stan Fields, University of Washington, Seattle, GSA President.

7:50 Opening Remarks, Phil Hieter, University of British Columbia and Jeannie Lee, Harvard University, TAGC Organizers.

8:00 Translating Zebrafish Development to the Clinic. **Leonard Zon**.

8:30 Using *Drosophila* to unravel the mysteries of sleep: when, why and how. **Amita Sehgal**.

9:00 New insights into the pathogenesis and treatment of Marfan syndrome and other presentations of thoracic aortic aneurysm. **Harry Dietz**.

9:30 Accelerating Insights from Basic Genetics. **Francis Collins**.

Thursday, July 14 10:30 AM – 12:30 PM
Crystal Ballroom G1

NOTES

Comparative Genomics, Computational Methods and Evolution

Moderator:
Steve Munger, Jackson Laboratory, Bar Harbor, ME

Theme: Evolution and Quantitative Biology

M259 - 10:30 Good dad, bad dad: the genetic basis of parental care **Hopi Hoekstra**.

M260 - 11:00 Accumulation and detection of germline spontaneous mutations in C57BL/6JJcl inbred mouse strain. **Yoichi Gondo**.

M261 - 11:15 Discovery, assembly, and annotation of subspecies specific haplotypes in classical and wild-derived mouse strains. **Jingtao Li**.

M262 - 11:30 Post-translational mechanisms buffer protein abundance against transcriptional variation. **Gary Churchill**.

M263 - 11:45 Trainee Talk.

M264 - 12:00 Trainee Talk.

M265 - 12:15 Multiple mouse reference genomes defines subspecies specific haplotypes and novel coding sequences. **Thomas Keane**.

Thursday, July 14 4:00 PM – 6:00 PM
Crystal Ballroom G1

Development

Moderator:**Bill Pavan**, NIH, Bethesda,

Theme: Development and Morphogenesis

M266 - 4:00 Symmetry breaking and self-organization in mouse development. **Takashi Hiiragi**.

M267 - 4:30 A SUMO-Ubiquitin Relay Recruits Proteasomes to Chromosome Axes to Regulate Meiotic Recombination. **Neil Hunter**.

M268 - 4:45 SMC5/6 complex is required for the formation of bivalent chromosomes capable of segregation during meiosis I in oocytes. **Grace Hwang**.

M269 - 5:00 Imaging how Transcription Factors Bind DNA to Control Cell Fate in Living Mouse Embryos. **Nicolas Plachta**.

M270 - 5:15 Maternally provided KDM1A enables the maternal-to-zygotic transition and prevents defects that manifest postnatally. **Jadiel Wasson**.

M271 - 5:30 A Forward Genetics Approach to Discover Modifiers of Developmental Phenotypes. **Krista Geister**.

M272 - 5:45 ER stress-induced remodeling of placental mRNA and small RNA expression networks. **Clement Chow**.

Thursday, July 14 7:45 PM – 9:45 PM
Crystal Ballroom G1

Translational and Systems Genetics

Moderator:
Fernando Pardo Manuel de Villena, UNC, Chapel Hill, NC

Theme: Neuroscience, Systems to Molecules

M273 - 7:45 **Verne Chapman Lecture:** Mendel 2.0, revisiting the determinants of inheritance and the origins of phenotypic variation. **Joseph Nadeau**.

M274 - 8:45 A suppressor screen in *Mecp2* mice reveals pathways for Rett syndrome pathogenesis. **Monica Justice**.

M275 - 9:00 Systems Genetics Approach toward Understanding Regulation of MECP2 Expression in the Brain. **Lucy Williams**.

M276 - 9:15 Conserved and tissue-specific effects of natural genetic variation on transcript and protein abundance. **Steven Munger**.

M277 - 9:30 Discovering novel susceptibility genes for aggressive prostate cancer using an integrated, systems-based cross-species strategy. **Jean Winter**.

Friday, July 15 8:00 AM – 9:30 AM
Crystal Ballroom G1

NOTES

Technological Innovations

Moderator:
Francois Spitz, Institute Pasteur, Paris, France

Theme: New Technology and Resources

M278 - 8:00 Confirming Functional Genomics with Optoacoustic and Raman Imaging. **Vasillis Ntziachristos**.

M279 - 8:30 A Cross-Species Novel Genetic Cell Ablation Technology Involving CD59 and Intermedilysin. **Elizabeth Bryda**.

M280 - 8:45 RNAi and CRISPR/Cas9 based In Vivo Models for Drug Discovery. **Prem Premsrirut**.

M281 - 9:00 CRISPR/Cas9 Genome Editing Pipeline for Mice and Rats. **Thom Saunders**.

M282 - 9:15 *Easy*-(*Isi*)-CRISPR; a method to efficiently knock-in long DNA inserts. **Channabasavaiah Gurumurthy**.

Friday, July 15 10:00 AM – 12:00 PM
Crystal Ballroom G1

Human Disease Models 1

Moderator:
Monica Justice, Sickkids, Toronto, Ontario, Canada

Theme: Disease Models and Aging

M283 - 10:00 Modeling the Gene: Maternal environment interaction in neurodevelopmental disorders. **Freda Miller**.

M284 - 10:30 An inducible dominant negative allele of *Sox10* models neurocristopathy deficits characteristic of PCWH patients. **Michelle Southard-Smith**.

M285 - 10:45 Alpha-synuclein, the cause of Parkinson's disease, has a vital function in aged mice. **Deborah Cabin**.

M286 - 11:00 Aberrant DNA binding by mutant (E339D) KLF1 induces upregulation of embryonic β-globin in adult mice. **Danitza Nebor**.

M287 - 11:15 Mutations in beta spectrin protect mice from malaria by increasing parasite susceptibility to clearance. **Gaetan Burgio**.

M288 - 11:30 Interaction of BRCA2 and PALB2 is essential for genome stability. **Suzanne Hartford**.

M289 - 11:45 Pathophysiological responses to dietary patterns differ with genetic backgrounds. **William Barrington**.

Friday, July 15 4:00 PM – 6:00 PM
Crystal Ballroom G1

Epigenetics

Moderator:
Philippe Soriano, Mt. Sinai Hospital, New York

Theme: Genomics and Gene Regulation

M290 - 4:00 *Xist* RNA, its interactome, and consequences of their disruption in vivo. **Jeannie Lee**.

M291 - 4:30 Allelic imbalance is a prevalent and tissue-specific feature of autosomal and X-linked genes in F1 hybrid mice. **Stefan Pinter**.

M292 - 4:45 *Vive la difference*: zooming in on sex-specific differences in mouse embryonic stem cells. **Nora Engel**.

M293 - 5:00 Genetic control of the epigenetic landscape. **Christopher Baker**.

M294 - 5:15 Genetic Variation Mediates the Epigenetic Response to Corticosteroids in Mice. **Gregory Carter**.

M295 - 5:30 EZH2 Isoforms Differentially Regulate the Function of Polycomb Repressive Complex 2. **Weipeng Mu**.

M296 - 5:45 The function of the histone demethylase KDM1A (LSD1) in Tau mediated neurodegeneration. **David Katz**.

Friday, July 15 7:30 PM – 9:30 PM
Palms Ballroom Sago/Sabal/Royal

Development and Evolution Joint Plenary Session

Moderator: Jeannie Lee, Massachusetts General Hospital and Harvard University, Cambridge, MA

7:30 The Fred Kavli Foundation Distinguished Lecture: Flexibility and variability in behavior at the gene-environment interface. **Cori Bargmann**.

8:00 Colinear Hox genes regulation in mammals. **Denis Duboule**.

8:30 Of mice, men and birds: meiotic recombination and its evolution. **Molly Przeworski**.

9:00 Fishing for the secrets of stickleback and human evolution. **David Kingsley**.

NOTES

CROSS COMMUNITY WORKSHOPS

Saturday, July 16	**8:0am – 10:00 am**
Descriptions are in the Workshop section and in the app.	
Automated Tracking for Quantitative Phenotyping	Grand Ballroom 3
CRISPR-based Genome Engineering	Crystal Ballroom J2
Using CyVerse Cyberinfrastructure to Enable Data Intensive Research, Collaboration, and Education	Grand Ballroom 1
Model Organisms to Face Environmental Problems	Palms Ballroom Canary 1
Integrating Research and Teaching: Professional Development for Current and Future Faculty Members	St. Thomas
Informatics Resources to Aid the Genetic Dissection of Neural Circuitry	Palms Ballroom Canary 2
Everything you Wanted to Know about Sex	Palms Ballroom Sabal
modMetabolome: Model Organism Metabolomics Consortium Workshop	Grand Ballroom 8A
Feeding Behavior, Nutrition and Metabolism: Emerging Model Organisms	Palms Ballroom Royal
Functional Genomics for Conserved Gene Function Discovery	Crystal Ballroom J1
Cell Competition in Flies and Mice	Crystal Ballroom G1
Developmental Mechanics	Crystal Ballroom G2
Model Systems in Drug Discovery	Grand Ballroom 2
CRISPR/Cas9 - Techniques and applications in Fish, Flies, & Mice	Grand Ballroom 7A
Gene Function Discovery within the IMPC Resource	Crystal Ballroom C
Utilizing NCBI Databases for Model Organism Research	Grand Ballroom 12-14
Systems Genetics in Complex Populations	Crystal Ballroom A-B
An Introduction to Using Galaxy for Genetic Data Analysis	Grand Ballroom 11
The InterMOD Consortium: A common interface to model organism data	Crystal Ballroom N-Q

Saturday, July 16 1:45 PM – 3:45 PM
Crystal Ballroom G1

NOTES

Cancer and Immunology

Moderator:
Viive Howell, The University of Sydney, Australia

Theme: Disease Models and Aging

M297 - 1:45 Engineering the Cancer Genome. **Tyler Jacks**.

M298 - 2:15 Genetic inhibition of MTOR during thymic Pre-T LBL development delays tumorigenesis and points to the IRF4-CDK6 pathway as a potential target in the treatment of T-ALL/LBL. **Beverly Mock**.

M299 - 2:30 Adenoma Susceptibility Modulated by Variable Complex Gut Microbiota in a Rat Model of Familial Colon Cancer. **Susheel Bhanu Busi**.

M300 - 2:45 The aggressive prostate cancer susceptibility gene *HIST1H1A* is a modulator of androgen receptor signaling and epithelial to mesenchymal transition. **Kendra Williams**.

M301 - 3:00 Polymorphisms in the *Arntl2* promoter affect metastatic susceptibility in estrogen-receptor negative breast cancer. **Kent Hunter**.

M302 - 3:15 Glioma modeling with MADM, a mouse genetic mosaic system, revealed cell competition as the mechanism that enables inevitable malignant progression. **Hui Zong**.

M303 - 3:30 Host-pathogen genetic interactions drive outcome to tuberculosis in the Collaborative Cross. **Clare Smith**.

Saturday, July 16 4:00 PM – 6:00 PM
Crystal Ballroom G1

Rosa Beddington Lecture Stem Cells

Moderator:
Yumiko Saga, National Institute of Genetics, Japan

Theme: Stem Cell, Regeneration and Germline

M304 - 4:00 **Rosa Beddington Lecture:** Single cells get together: cell lineage specification & tissue morphogenesis in the early mouse embryo. **Anna-Katerina Hadjantonakis**.

M305 - 5:00 *Snai1* is required for stem cell maintenance in the mouse intestinal epithelium. **Helen Abud**.

M306 - 5:15 Muscle fiber signaling scales the myogenic stem cell pool. **Christoph Lepper**.

M307 - 5:30 Plasticity, self-renewal and transcriptional dynamics – How embryonic stem cells stall for time in the decision making process? **Joshua Brickman**.

Sunday, July 17 8:00 AM – 10:00 AM
Crystal Ballroom G1

Human Disease Models II

Moderator:
Teresa Gunn, McLaughlin Research Institute, Great Falls, MT

Theme: Disease Models and Aging

M308 - 8:00 Comparative Mendelian genomics and disease modeling in mice. **Laura Reinholdt**.

M309 - 8:15 A New Mouse Model for Costello Syndrome. **Tania Sorg**.

M310 - 8:30 A genetic epistasis analysis of an ENU-induced *Reln* mutant reveals that the C-terminal domain of RELN is required for binding to the receptor VLDLR but not to LRP8 (APOER2). **David Beier**.

M311 - 8:45 Inhibition of activin A stops the regrowth of surgically resected heterotopic bone in a mouse model of Fibrodysplasia Ossificans Progressiva and indicates a new potential path to therapy. **Aris Economides**.

M312 - 9:00 Driving discovery and characterisation of novel genes important for bone biology by combining high-throughput mouse phenotyping and a tissue-based deep phenotyping platform. **Chris Lelliott**.

M313 - 9:15 From mouse to human and back to mouse: sodium channel mutations and epilepsy. **Miriam Meisler**.

M314 - 9:30 Cas9 RNA-guided nuclease gene editing – rapid disease modeling in mice. **Lauryl Nutter**.

9:45 Trainee Awards.

Sunday, July 17 10:30 AM – 12:30 PM
Palms Ballroom Sago/Sabal/Royal

Technology and its Application Joint Plenary Session

Moderator: Phil Hieter, University of British Columbia, Vancouver, Canada

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10:30 The gut microbiota and childhood undernutrition: looking at human development from a microbial perspective. **Jeffrey Gordon**.

11:00 Synthesis of the yeast genome and beyond. **Jef Boeke**.

11:30 Tomorrow's Table: Organic Farming, Genetics and the Future of Food. **Pamela Ronald**.

12:00 CRISPR-Cas Genome Engineering: Biology, Technology and Ethics. **Jennifer Doudna**. (Pre-recorded talk)

NOTES

NOTES

POPULATION, EVOLUTIONARY, AND QUANTITATIVE GENETICS MEETING

PEQG

Plenary and Platform Sessions

Population, Evolutionary, And Quantitative Genetics Meeting

SCHEDULE AT-A-GLANCE

Wednesday, July 13		
2:00pm-9:30pm	Speaker Ready Room Open	Hall of Cities - Anaheim
7:00pm-9:00pm	Scientific Session: PEQG Keynote 1	Crystal Ballroom
9:00pm-11:00pm	Opening Mixer with Exhibits	Cypress Ballroom
Thursday, July 14		
7:00am-5:00pm	Speaker Ready Room Open	Hall of Cities -Anaheim
7:45am-10:00am	Genetics and Determinants of Health Joint Plenary Session	Palms Ballroom
8:00am-4:00pm	Exhibits Open	Cypress Ballroom
9:00am-8:00pm	Demo Room: MOD (FlyBase, MGI, SGD, WormBase, Zfin) Demo Room Open	Palms Ballroom Canary 3-4
10:30am-12:30pm	Scientific Session: Natural Selection and Adaptation	Crystal Ballroom
12:30pm-1:30pm	Mentoring Roundtables #1	North Tower - Harbor Beach
12:30pm-1:30pm	Speaking Up for Genetics and Model Organism Research	Crystal Ballroom H
1:30pm-3:30pm	Poster Presentations 1:30pm-2:30pm: Even-numbered poster 2:30pm-3:30pm: Odd-numbered posters	Cypress Ballroom
1:30pm-3:30pm	GeneticsCareers Center and Job Fair	Cypress Ballroom 1C
4:00pm-6:00pm	Scientific Session: James F. Crow Symposium	Crystal Ballroom
4:00pm-6:00pm	Plenary Session and Workshop for Undergraduate Researchers	North Tower - Sawgrass
7:45pm-9:45pm	Scientific Session: PEQG Keynote 2	Crystal Ballroom
10:00pm-11:30pm	*Science Cafe Event	Palms Ballroom Sabal
Friday, July 15		
7:00am-5:00pm	Speaker Ready Room Open	Hall of Cities - Anaheim
8:00am-9:30am	Scientific Session: Cryptic Variation and Robustness	Crystal Ballroom
8:00am-4:30pm	Exhibits Open	Cypress Ballroom
9:00am-8:00pm	Demo Room: MOD (FlyBase, MGI, SGD, WormBase, Zfin) Demo Room Open	Palms Ballroom Canary 3-4
10:00am-12:00pm	Scientific Session: Mutation & Recombination	Crystal Ballroom
12:00pm-1:30pm	*Editor's Panel Discussion and Roundtable	North Tower - Harbor Beach
1:30pm-3:30pm	Poster Presentations 1:30pm-2:10pm: "A" poster authors present 2:10pm-2:50pm: "B" poster authors present 2:50pm-3:30pm: "C" poster authors present	Cypress Ballroom
1:30pm-3:30pm	GeneticsCareers Center	Cypress Ballroom 1C
2:00pm-2:45pm	GeneticsCareers Workshop - Nailing the Job Talk	Cypress Ballroom 1B
4:00pm-6:00pm	Scientific Session: Molecular Evolution	Crystal Ballroom
6:00pm-7:30pm	*Women in Genetics Panel and Networking	North Tower - Harbor Beach
7:30pm-9:30pm	Development and Evolution Joint Plenary Session	Palms Ballroom

** Ticketed Event*

#TAGC16

Saturday, July 16		
7:00am-5:00pm	Speaker Ready Room Open	Hall of Cities - Anaheim
8:00am-10:00am	Workshops: See topics and descriptions in the Workshop Section	Multiple locations
8:00am-12:00pm	Exhibits Open	Cypress Ballroom
8:00am-900am	Trainee Bootcamp Workshops: Session 1	North Tower
9:00am-10:00am	Trainee Bootcamp Workshops: Session 2	North Tower
10:00am-12:00pm	Poster Presentations 10:00am-11:00am Odd-numbered posters 11:00am-12:00pm Even-numbered posters	Cypress Ballroom *(Posters must be removed by 1pm)*
10:00am-12:00pm	GeneticsCareers Center	Cypress Ballroom 1C
10:30am-11:15am	GeneticsCareers Workshop	Cypress Ballroom 1B
12:15pm-1:45pm	*Mentoring Roundtables #2	North Tower - Harbor Beach
1:45pm-3:45pm	Scientific Session: Population Genetics	Crystal Ballroom
4:00pm-6:00pm	Scientific Session: Complex Trait Evolution	Crystal Ballroom
7:30pm-9:30pm	Scientific Session: PEQG Keynote 3	Crystal Ballroom
Sunday, July 17		
8:00am-10:00am	Scientific Session: Epistasis	Crystal Ballroom
10:30am-12:30pm	Technology and its Application Joint Plenary Session	Palms Ballroom

** Ticketed Event*

Wednesday, July 13 7:00 PM – 9:00 PM
Crystal Ballroom J1

PEQG Keynote 1

Moderator:
Michael Lynch, Indiana University, Bloomington

Theme: Evolution and Quantitative Biology

P315 - 7:00 Evolution of gene expression: from mutation to polymorphism to divergence. **Patricia Wittkopp**.

P316 - 7:30 The hidden complexity of Mendelian inheritance in natural populations. **Joseph Schacherer**.

P317 - 7:45 Parallel Gene Expression Differences between Low and High Latitude Populations of two *Drosophila* species. **Li Zhao**.

P318 - 8:00 *Trans* regulatory architecture of genetic transcriptome variation from 1,000 yeast individuals. **Frank Albert**.

P319 - 8:15 The genomic basis of environmental adaptation in house mice. **Megan Phifer-Rixey**.

P320 - 8:30 Parallel selective sweeps of selfish *Segregation Distorter* complexes in African and European *Drosophila melanogaster* populations. **Amanda Larracuente**.

P321 - 8:45 Diverse genetic architectures lead to the same cryptic phenotype in a yeast cross. **Ian Ehrenreich**.

Thursday, July 14 7:45 AM – 10:00 AM
Palms Ballroom Sago/Sabal/Royal

Genetics and Determinants of Health Joint Plenary Session

Moderator: Lynn Cooley, Yale University, New Haven, CT

7:45 Welcome, Stan Fields, University of Washington, Seattle, GSA President.

7:50 Opening Remarks, Phil Hieter, University of British Columbia and Jeannie Lee, Harvard University, TAGC Organizers.

8:00 Translating Zebrafish Development to the Clinic. **Leonard Zon**.

8:30 Using Drosophila to unravel the mysteries of sleep: when, why and how. **Amita Sehgal**.

9:00 New insights into the pathogenesis and treatment of Marfan syndrome and other presentations of thoracic aortic aneurysm. **Harry Dietz**.

9:30 Accelerating Insights from Basic Genetics. **Francis Collins**.

Thursday, July 14 10:30 AM – 12:30 PM
Crystal Ballroom J1

NOTES

Natural Selection and Adaptation

Moderator:
Dmitri Petrov, Stanford University, CA

Theme: Evolution and Quantitative Biology

P322 - 10:30 Genome-wide selection component analysis in a wild pedigreed population of the Florida Scrub-Jay. **Andrew Clark**.

P323 - 10:45 *Drosophila melanogaster*-specific genes rapidly evolved strong fitness effects. **Nicholas VanKuren**.

P324 - 11:00 Examining the effects of natural selection on linked neutral divergence. **Tanya Phung**.

P325 - 11:15 Genome-wide signals of adaptation in mammals and the arms race with viruses. **David Enard**.

P326 - 11:30 Evolution of gene expression in giant island mice. **Mark Nolte**.

P327 - 11:45 Does the Y-chromosome facilitate sexual dimorphic evolution or constrain autosomal evolution? **Ian Kutch**.

P328 - 12:00 The antibiotic-independent evolution of antibiotic resistance. **Ruth Hershberg**.

P329 - 12:15 Dynamics and feasibility of CRISPR/Cas9-mediated gene drives in natural populations. **Philipp Messer**.

Thursday, July 14 4:00 PM – 6:00 PM
Crystal Ballroom J1

James F. Crow Symposium

Moderator:
Kirsten Bomblies, John Innes Centre, Norwich UK

Theme: Evolution and Quantitative Biology

4:00 Introduction. **Kirsten Bomblies**.

P330 - 4:15 Legacy of James Crow. **Daniel Hartl**.

P331 - 4:30 Estimating Jacquard's general model of relatedness from population genomic data. **Matthew S. Ackerman**.

P332 - 4:45 Dynamics of seasonal adaptation in *Drosophila melanogaster*. **Emily Behrman**.

P333 - 5:00 The fragile Y hypothesis: The role of Y aneuploidy in the evolution of sex chromosomes and genome architecture. **Heath Blackmon**.

P334 - 5:15 Using network theory to infer and analyze population structure from genetic data. **Gili Greenbaum**.

P335 - 5:30 Molecular variation across populations of a widespread North American firefly reveals selection on luciferase but not opsins. **Sarah Sander**.

P336 - 5:45 Fitness pleiotropy and the phenotypic basis of adaptation in experimentally evolving yeast. **Sandeep Venkataram**.

Thursday, July 14 7:45 PM – 9:45 PM
Crystal Ballroom J1

PEQG Keynote 2

Moderator:
Lauren McIntyre, University of Florida, Gainesville

Theme: Evolution and Quantitative Biology

P337 - 7:45 Systems genetics for industry: combining QTL mapping, GWAS and RNA sequencing to improve bone strength in laying hens. **Dirk Jan de Koning**.

P338 - 8:15 Effect of Genetic Architecture and Sample Size on the Accuracy of Genomic Prediction of Complex Traits. **Fabio Morgante**.

P339 - 8:30 A Powerful Yeast Mapping Panel for Complex Trait Genetics. **Daniel Skelly**.

P340 - 8:45 Using haplotype-based models for genomic predictions in crossbred animals and multiple breeds. **Jared Decker**.

P341 - 9:00 Dissection of complex traits in sorghum for the sustainable production of fuels and chemicals. **Wilfred Vermerris**.

P342 - 9:15 Rediscovering the Diallel: How inbred and F1 data can be used to define, model and estimate heritability of both ordinary and treatment-response traits. **William Valdar**.

P343 - 9:30 A New Trait Mapping Method for *Drosophila* Reveals Oligogenic Adaptation from Standing Genetic Variation. **John Pool**.

Friday, July 15 8:00 AM – 9:30 AM
Crystal Ballroom J1

NOTES

Cryptic Variation and Robustness

Moderator:
Bret Payseur, University of Wisconsin, Madison

Theme: Evolution and Quantitative Biology

P344 - 8:00 The genomic architecture of interactions between natural polymorphisms and environments in yeast growth. **Xinzhu Wei**.

P345 - 8:15 How to make drug resistance evolution "difficult": a lesson on epistasis and robustness in malaria parasites. **Thanat Chookajorn**.

P346 - 8:30 Investigating cryptic genetic variation through position effect variegation in a panel of *Drosophila melanogaster* inbred lines. **Joyce Kao**.

P347 - 8:45 The cost of noise in biochemical reactions and the evolutionary limits of cellular robustness. **J. David Van Dyken**.

P348 - 9:00 Selection transforms the genetic landscape of Hsp90-interacting variation. **Kerry Geiler-Samerotte**.

P349 - 9:15 Genetic and cellular architecture of parentally biased seed size determinants. **Jonathan Fitz Gerald**.

Friday, July 15 10:00 AM – 12:00 PM
Crystal Ballroom J1

Mutation and Recombination

Moderator:
Michael Lynch, Indiana University, Bloomington

Theme: Evolution and Quantitative Biology

P350 - 10:00 An X×Y genetic interaction mediates global crossover frequency in house mice. **Beth Dumont**.

P351 - 10:15 CRISPR-directed mitotic recombination enables genetic mapping without crosses. **Meru Sadhu**.

P352 - 10:30 Genetic analysis of an intermediate phenotype for recombination rate variation. **Richard Wang**.

P353 - 10:45 Replication timing generates conserved base-substitution mutation rates in concurrently replicated regions of mismatch repair deficient bacterial genomes. **Vaughn Cooper**.

P354 - 11:00 Decomposing intra-genomic heterogeneity in mutation bias in coding sequences. **Cedric Landerer**.

P355 - 11:15 Transposon-induced genome rearrangements in maize: mechanisms and genetic impacts. **Thomas Peterson**.

P356 - 11:30 Evidence for the interspecies transfer of a driving X chromosome. **Christopher Leonard**.

P357 - 11:45 The mutational structure of metabolism in *Caenorhabditis elegans*. **Charles Baer**.

Friday, July 15 4:00 PM – 6:00 PM
Crystal Ballroom J1

Molecular Evolution

Moderator:
Dmitri Petrov, Stanford University, CA

Theme: Evolution and Quantitative Biology

P358 - 4:00 Ongoing duplicate gene resolution shapes diversified metabolic networks: a functional comparative study of two yeast *GAL*actose utilization networks. **Meihua Kuang**.

P359 - 4:15 Young proteins are less ordered, showing preadaptation for *de novo* gene birth. **Benjamin Wilson**.

P360 - 4:30 Lineage dynamics in adapting yeast populations. **Julia Piper**.

P361 - 4:45 Exploration of bioactive peptides from random sequences: an experimental approach to *de novo* gene evolution. **Rafik Neme**.

P362 - 5:00 Molecular evolution and population dynamics of herbicide resistance in *Amaranthus palmeri*: rapid proliferation of a highly conserved gene modulated by population structure. **Amy Lawton-Rauh**.

P363 - 5:15 Secreted Proteins evade the Expression – Rate Anticorrelation. **Felix Feyertag**.

P364 - 5:30 The fitness landscape of a tRNA gene. **Chuan Li**.

P365 - 5:45 The Critical Functions Encoded by Synonymous Sites. **Heather Machado**.

Friday, July 15 7:30 PM – 9:30 PM
Palms Ballroom Sago/Sabal/Royal

Development and Evolution Joint Plenary Session

Moderator: Jeannie Lee, Massachusetts General Hospital and Harvard University, Cambridge, MA

7:30 The Fred Kavli Foundation Distinguished Lecture: Flexibility and variability in behavior at the gene-environment interface. **Cori Bargmann**.

8:00 Colinear Hox genes regulation in mammals. **Denis Duboule**.

8:30 Of mice, men and birds: meiotic recombination and its evolution. **Molly Przeworski**.

9:00 Fishing for the secrets of stickleback and human evolution. **David Kingsley**.

NOTE

CROSS COMMUNITY WORKSHOPS

Saturday, July 16	**8:0am – 10:00 am**
Descriptions are in the Workshop section and in the app.	
Automated Tracking for Quantitative Phenotyping	Grand Ballroom 3
CRISPR-based Genome Engineering	Crystal Ballroom J2
Using CyVerse Cyberinfrastructure to Enable Data Intensive Research, Collaboration, and Education	Grand Ballroom 1
Model Organisms to Face Environmental Problems	Palms Ballroom Canary 1
Integrating Research and Teaching: Professional Development for Current and Future Faculty Members	St. Thomas
Informatics Resources to Aid the Genetic Dissection of Neural Circuitry	Palms Ballroom Canary 2
Everything you Wanted to Know about Sex	Palms Ballroom Sabal
modMetabolome: Model Organism Metabolomics Consortium Workshop	Grand Ballroom 8A
Feeding Behavior, Nutrition and Metabolism: Emerging Model Organisms	Palms Ballroom Royal
Functional Genomics for Conserved Gene Function Discovery	Crystal Ballroom J1
Cell Competition in Flies and Mice	Crystal Ballroom G1
Developmental Mechanics	Crystal Ballroom G2
Model Systems in Drug Discovery	Grand Ballroom 2
CRISPR/Cas9 - Techniques and applications in Fish, Flies, & Mice	Grand Ballroom 7A
Gene Function Discovery within the IMPC Resource	Crystal Ballroom C
Utilizing NCBI Databases for Model Organism Research	Grand Ballroom 12-14
Systems Genetics in Complex Populations	Crystal Ballroom A-B
An Introduction to Using Galaxy for Genetic Data Analysis	Grand Ballroom 11
The InterMOD Consortium: A common interface to model organism data	Crystal Ballroom N-Q

Saturday, July 16 1:45 PM – 3:45 PM
Crystal Ballroom J1

NOTES

Population Genetics

Moderator:
Lauren McIntyre, University of Florida, Gainesville

Theme: Evolution and Quantitative Biology

P366 - 1:45 Estimation of Population Phylogeny in an IM framework, with Applications to African Human Hunter Gatherer Populations. **Jody Hey**.

P367 - 2:00 The genetic diversity of a population experiencing selection. **Ivana Cvijovic**.

P368 - 2:15 Estimation of effective number of stem cells in Dugesia worms using temporal variance of allele frequencies. **Hosseinali Asgharian**.

P369 - 2:30 Estimating ages of singletons and other rare alleles. **Alexander Platt**.

P370 - 2:45 Genetic Interrelationships between Zika Virus, Dengue Virus, Chikungunya Virus and Yellow Fever Virus Strains. **Olaitan Awe**.

P371 - 3:00 Beneficial mutations improve fitness in a *Caenorhabditis elegans* line evolved under conditions of extreme genetic drift. **Stephen Christy**.

P372 - 3:15 Homoploid hybrid speciation in the wild: yeasts do it too. **Guillaume Charron**.

P373 - 3:30 The correlation across populations of mutation effects on fitness. **Ryan Gutenkunst**.

Saturday, July 16 4:00 PM – 6:00 PM
Crystal Ballroom J1

Complex Trait Evolution

Moderator:
Kirsten Bomblies, John Innes Centre, Norwich, UK

Theme: Evolution and Quantitative Biology

P374 - 4:00 An Ion-channel Gene Causes Natural Courtship Song Variation in *Drosophila*. **Yun Ding**.

P375 - 4:15 Allelic variation of an EXOCYST subunit switches between distinct root system architectures. **Wolfgang Busch**.

P376 - 4:30 Large scale splicing QTL analysis of cancer genomes. **Kjong-Van Lehmann**.

P377 - 4:45 QTL mapping for hitchhiking behavior in *C. elegans* reveals evolutionary trade-off between dispersal and reproduction. **Daehan Lee**.

P378 - 5:00 Genetic Analysis of Maize Lines Tolerance to Drought and Soil-Nitrogen Stresses. **Bashir Bello**.

P379 - 5:15 Systems genetics in Maize: A multilevel analysis of Maize response to Ozone. **Lauren McIntyre**.

P380 - 5:30 Deep sequencing of whole transcriptomes across the Drosophila Genetic Reference Panel. **Logan Everett**.

P381 - 5:45 Steps toward reproducible research. **Karl Broman**.

Saturday, July 16 7:30 PM – 9:30 PM
Crystal Ballroom J1

PEQG Keynote 3

Moderator:
Bret Payseur, University of Wisconsin, Madison

Theme: Evolution and Quantitative Biology

P382 - 7:30 Genomics of parallel local adaptation to serpentine and toxic copper mine soils in the wildflower Mimulus. **John Willis**.

P383 - 8:00 Domestic pigeon's checkered past: a link between color patterning, introgression, and hereditary blindness. **Anna Vickrey**.

P384 - 8:15 Whole genome sequencing studies of speciation and selection in the Lake Malawi cichlid radiation. **Richard Durbin**.

P385 - 8:30 How much do chromosomal inversions prevent gene conversion and interspecies gene flow? **Katharine Korunes**.

P386 - 8:45 Convergent evolution of regulatory regions in flightless birds. **Timothy Sackton**.

P387 - 9:00 Genomic imprinting and speciation in mammals. **Jeffrey Good**.

P388 - 9:15 Cryptic genetic variation and the evolution of complex traits. **Annalise Paaby**.

Sunday, July 17 8:00 AM – 10:00 AM
Crystal Ballroom J1

Epistasis

Moderator:
Michael Lynch, Indiana University, Bloomington

Theme: Evolution and Quantitative Biology

P389 - 8:00 Dissecting the large X-effect in Drosophila speciation: high resolution mapping and the identification of hybrid male sterility genes. **Colin Meiklejohn**.

P390 - 8:15 The naturally variable ELF3 polyglutamine is the hub of an epistatic network in *Arabidopsis thaliana*. **Maximilian Press**.

P391 - 8:30 Functional compensation and dependency between duplicated genes in protein interaction networks. **Christian Landry**.

P392 - 8:45 High-throughput measurements of the evolutionary consequences of epistasis. **José Rojas Echenique**.

P393 - 9:00 Beyond candidate genes: Mapping monogenic trait modifiers using informative recombinant progeny in yeast. **Amy Sirr**.

P394 - 9:15 Characterizing patterns of epistasis in yeast experimental evolution. **Gregory Lang**.

P395 - 9:30 Genetic Interactions Suppress Extreme Bone and Weight Phenotypes in a Mouse Intercross. **Gregory Carter**.

P396 - 9:45 Can epistasis or GxE be predictable? Lessons from mitonuclear interactions in Drosophila. **David Rand**.

Sunday, July 17 10:30 AM – 12:30 PM
Palms Ballroom Sago/Sabal/Royal

Technology and its Application Joint Plenary Session

Moderator: Phil Hieter, University of British Columbia, Vancouver, Canada

10:30 The gut microbiota and childhood undernutrition: looking at human development from a microbial perspective. **Jeffrey Gordon**.

11:00 Synthesis of the yeast genome and beyond. **Jef Boeke**.

11:30 Tomorrow's Table: Organic Farming, Genetics and the Future of Food. **Pamela Ronald**.

12:00 CRISPR-Cas Genome Engineering: Biology, Technology and Ethics. **Jennifer Doudna**. (Pre-recorded talk)

NOTES

YEAST GENETICS MEETING

Plenary and Platform Sessions

Yeast Genetics Meeting

SCHEDULE AT-A-GLANCE

Wednesday, July 13		
2:00pm-9:30pm	Speaker Ready Room Open	Hall of Cities - Anaheim
7:00pm-9:00pm	Scientific Session: The Dynamic Genome Winge-Lindegren Address presented by Rodney Rothstein	Crystal Ballroom G2
9:00pm-11:00pm	Opening Mixer with Exhibits	Cypress Ballroom
Thursday, July 14		
7:00am-5:00pm	Speaker Ready Room Open	Hall of Cities -Anaheim
7:45am-10:00am	Genetics and Determinants of Health Joint Plenary Session	Palms Ballroom
8:00am-4:00pm	Exhibits Open	Cypress Ballroom
9:00am-8:00pm	Demo Room: MOD (FlyBase, MGI, SGD, WormBase, Zfin) Demo Room Open	Palms Ballroom Canary 3-4
10:30am-12:30pm	Scientific Session: Post-Transcriptional Gene Regulation	Crystal Ballroom G2
12:30pm-1:30pm	Mentoring Roundtables #1	North Tower - Harbor Beach
12:30pm-1:30pm	Speaking Up for Genetics and Model Organism Research	Crystal Ballroom H
1:30pm-3:30pm	Poster Presentations 1:30pm-2:30pm: Even-numbered poster 2:30pm-3:30pm: Odd-numbered posters	Cypress Ballroom
1:30pm-3:30pm	GeneticsCareers Center and Job Fair	Cypress Ballroom 1C
4:00pm-6:00pm	Scientific Session: Epigenetics and Transcriptional Regulation	Crystal Ballroom G2
4:00pm-6:00pm	Plenary Session and Workshop for Undergraduate Researchers	North Tower - Sawgrass
7:45pm-9:45pm	Scientific Session: Tackling Human Disease Using Yeast Ira Herskowitz Award presented to Lars Steinmetz	Crystal Ballroom G2
10:00pm-11:30pm	*Science Cafe Event	Palms Ballroom Sabal
Friday, July 15		
7:00am-5:00pm	Speaker Ready Room Open	Hall of Cities - Anaheim
8:00am-9:30am	Scientific Session: Division and Development	Crystal Ballroom G2
8:00am-4:30pm	Exhibits Open	Cypress Ballroom
9:00am-8:00pm	Demo Room: MOD (FlyBase, MGI, SGD, WormBase, Zfin) Demo Room Open	Palms Ballroom Canary 3-4
10:00am-12:00pm	Scientific Session: Stress Sensing and Damage Control Yeast Genetics Meeting Lifetime Achievement Award presented to James Broach	Crystal Ballroom G2
12:00pm-1:30pm	*Editor's Panel Discussion and Roundtable	North Tower - Harbor Beach
1:30pm-3:30pm	Poster Presentations 1:30pm-2:10pm: "A" poster authors present 2:10pm-2:50pm: "B" poster authors present 2:50pm-3:30pm: "C" poster authors present	Cypress Ballroom

** Ticketed Event*

#TAGC16

Friday, July 15 (continued)		
1:30pm-3:30pm	GeneticsCareers Center	Cypress Ballroom 1C
2:00pm-2:45pm	GeneticsCareers Workshop - Nailing the Job Talk	Cypress Ballroom 1B
4:00pm-6:00pm	Scientific Session: Evolution in and out of the Lab	Crystal Ballroom G2
6:00pm-7:30pm	*Women in Genetics Panel and Networking	North Tower - Harbor Beach
6:30pm-7:30pm	YGM Program Committee Meeting	TBD
7:30pm-9:30pm	Development and Evolution Joint Plenary Session	Palms Ballroom
Saturday, July 16		
7:00am-5:00pm	Speaker Ready Room Open	Hall of Cities - Anaheim
8:00am-10:00am	Workshops: See topics and descriptions under the Workshop Section	Multiple locations
8:00am-12:00pm	Exhibits Open	Cypress Ballroom
8:00am-9:00am	Trainee Bootcamp Workshops: Session 1	North Tower
9:00am-10:00am	Trainee Bootcamp Workshops: Session 2	North Tower
10:00am-12:00pm	Poster Presentations 10:00am-11:00am Odd-numbered posters 11:00am-12:00pm Even-numbered posters	Cypress Ballroom *(Posters must be removed by 1pm)*
10:00am-12:00pm	GeneticsCareers Center	Cypress Ballroom 1C
10:30am-11:15am	GeneticsCareers Workshop	Cypress Ballroom 1B
12:15pm-1:45pm	*Mentoring Roundtables #2	North Tower - Harbor Beach
1:45pm-3:45pm	Scientific Session: Revisiting Classical Genetics with New Technology	Crystal Ballroom G2
4:00pm-6:00pm	Concurrent Workshops: Beyond cerevisiae: Exploiting yeast diversity in nature to understand genome evolution in diverse environments Getting Even More Out of SGD	Crystal Ballroom C-D Crystal Ballroom G2
7:30pm-9:30pm	Scientific Session: Structural and Cellular Organization Lee Hartwell Lecture presented by Susan Gasser	Crystal Ballroom G2
Sunday, July 17		
8:00am-10:00am	Scientific Session: The Fat and Sweet Sides of Life	Crystal Ballroom G2
10:30am-12:30pm	Technology and its Application Joint Plenary Session	Palms Ballroom

** Ticketed Event*

Wednesday, July 13 7:00 PM – 9:00 PM
Crystal Ballroom G2

The Dynamic Genome

Moderator:
Gavin Sherlock, Stanford University, CA

Theme: Genomics and Gene Regulation

Y463 - 7:00 Winge-Lindegren Address. **Rodney Rothstein**.

Y464 - 7:30 Using Experimental Evolution To Engineer A Low Flocculation Yeast Strain. **Elyse Hope**.

Y465 - 7:45 Ploidy tug-of-war: evolutionary and genetic environments influence the rate of ploidy drive in a human fungal pathogen. **Meleah Hickman**.

Y466 - 8:00 Mechanism of non-genetic heterogeneity in yeast growth rate and stress resistance. **Shuang Li**.

Y467 - 8:15 The concerted function of the Shu complex and the Rad51 paralogs in Rad51 presynaptic assembly. **Kara Bernstein**.

Y468 - 8:30 Genome-wide detection of genomic fluctuations in *Saccharomyces cerevisiae*. **Kim Palacios Flores**.

Thursday, July 14 7:45 AM – 10:00 AM
Palms Ballroom Sago/Sabal/Royal

Genetics and Determinants of Health Joint Plenary Session

Moderator: Lynn Cooley, Yale University, New Haven, CT

7:45 Welcome, Stan Fields, University of Washington, Seattle, GSA President.

7:50 Opening Remarks, Phil Hieter, University of British Columbia and Jeannie Lee, Harvard University, TAGC Organizers.

8:00 Translating Zebrafish Development to the Clinic. **Leonard Zon**.

8:30 Using *Drosophila* to unravel the mysteries of sleep: when, why and how. **Amita Sehgal**.

9:00 New insights into the pathogenesis and treatment of Marfan syndrome and other presentations of thoracic aortic aneurysm. **Harry Dietz**.

9:30 Accelerating Insights from Basic Genetics. **Francis Collins**.

Thursday, July 14 10:30 AM – 12:30 PM
Crystal Ballroom G2

NOTES

Post-Transcriptional Gene Regulation

Moderator:
Audrey Gasch, University of WI, Madison

Theme: Genomics and Gene Regulation

Y469 - 10:30 A cradle-to-grave analysis of *cis*-regulatory variation in yeast. **Jennifer Andrie**.

Y470 - 10:45 Msn2 regulates cellular response and growth to stress through modulation of its localization and DNA binding. **Vasudha Bharatula**.

Y471 - 11:00 Stress-dependent transcriptome changes serve to reallocate translational capacity during stress acclimation. **Yi-Hsuan Ho**.

Y472 - 11:15 Genetic factors controlling accelerated mRNA degradation during a nitrogen upshift. **Darach Miller**.

Y473 - 11:30 P bodies regulate the rewiring of a transcription network by controlling the expression of the *YOX1* repressor during DNA replication stress. **Raphael Loll-Krippleber**.

Y474 - 11:45 Gene control by prion-like conformations of intrinsically disordered proteins. **Daniel Jarosz**.

Y475 - 12:00 Parallel pathways for export of tRNAs from the nucleus to the cytoplasm. **Anita Hopper**.

Y476 - 12:15 Yeast telomerase and RNase P/MRP: when two different worlds come together. **Nancy Laterreur**.

Thursday, July 14 4:00 PM – 6:00 PM
Crystal Ballroom G2

Epigenetics and Transcriptional Regulation

Moderator:
Lorraine Pillus, University of California, San Diego

Theme: Genomics and Gene Regulation

Y477 - 4:00 Coordinated regulation of heterochromatin inheritance by Daf1/Dpb4 complex. **Fei Li**.

Y478 - 4:15 The Replication Kinase Cdc7 Marks Histones to Regulate Biosynthesis Genes. **Patrick Grant**.

Y479 - 4:30 An oncometabolite disrupts epigenetic processes and increases gene silencing in *Saccharomyces cerevisiae*. **Ryan Janke**.

Y480 - 4:45 Mechanistic insight into the role of the Paf1 complex in histone modification. **S. Branden Van Oss**.

Y481 - 5:00 Protein abundance control by non-coding antisense transcription. **Florian Huber**.

Y482 - 5:15 Promoter scanning during transcription initiation in *Saccharomyces cerevisiae*: Pol II in the “shooting gallery”. **Craig Kaplan**.

Thursday, July 14 7:45 PM – 9:45 PM
Crystal Ballroom G2

Tackling Human Disease Using Yeast

Moderator:
Kara Dolinski, Princeton University, NJ

Theme: Neuroscience, Systems to Molecules

Y483 - 7:45 Ira Herskowitz Award. **Lars Steinmetz**.

Y484 - 8:15 Pathway transplantation into yeast as a model for human disease. **Neta Agmon**.

Y485 - 8:30 Genetic and environmental backgrounds constrain the course of evolutionary rescue by compensatory mutations. **Véronique Hamel**.

Y486 - 8:45 The genomic repercussions of *RAD5* overexpression. **Robert Reid**.

Y487 - 9:00 Functional characterization of human gene alleles using inter-species genetic approaches. **Quan Zhong**.

Y488 - 9:15 Genome-Wide Analysis in Yeast to Identify Molecular Targets Promoting Readthrough. **Mert Icyuz**.

Y489 - 9:30 Systematic functional analysis of resistance-conferring mutations. **Lai Wong**.

Friday, July 15 8:00 AM – 9:30 AM
Crystal Ballroom G2

NOTES

Division and Development

Moderator:
Yona Kassir, Technion Institute, Haifa, Israel

Theme: Neuroscience, Systems to Molecules

Y490 - 8:00 A trade-off between invasion and sexual reproduction is mediated by the DNA-binding mechanism of a conserved transcription factor. **Michael Dorrity**.

Y491 - 8:15 Meiotic Crossing Over Requires Attenuation of an Intrinsic Degron in the MutS Homolog Msh4. **Neil Hunter**.

Y492 - 8:30 The ascus persists after post-germination budding and influences bud-vs-mate decisions in *S. cerevisiae*. **Michael McMurray**.

Y493 - 8:45 Kar4p regulates meiosis at both the transcriptional and translational levels. **Mark Rose**.

Y494 - 9:00 A cytokinesis checkpoint. **Eric Weiss**.

Y495 - 9:15 The CWI Pathway Regulates Cell Wall Degradation during Mating. **Allison Hall**.

Friday, July 15 10:00 AM – 12:00 PM
Crystal Ballroom G2

Stress Sensing and Damage Control

Moderator:
Oliver Kerscher, The College of William and Mary, Williamsburg, VA

Theme: Neuroscience, Systems to Molecules

Y496 - 10:00 "Flipping the Switch": ROS-induced degradation of Med13 by SCF^{Grr1} mediates mitochondrial fragmentation and cell death. **David Stieg**.

Y497 - 10:15 Protein sequestration after genotoxic stress regulates splicing. **Peter Stirling**.

Y498 - 10:30 The DNA damage checkpoint targets the exoribonuclease, Xrn1, in response to damage. **Jessica Lao**.

Y499 - 10:45 The lysine acetyltransferase NuA4 regulates glucose-deprived stress granule formation through cellular acetyl-CoA levels. **Sylvain Huard**.

Y500 - 11:00 The Quick and the Dead: Single-Cell Demography at the Yeast Thermal Limit. **Paul Magwene**.

Y501 - 11:15 The RSC complex functions to maintain ploidy in *Saccharomyces cerevisiae*. **Tina Sing**.

Y502 - 11:30 Yeast Genetics Meeting Lifetime Achievement Award. **James Broach**.

Friday, July 15 4:00 PM – 6:00 PM
Crystal Ballroom G2

Yeast Evolution in and out of the Lab

Moderator:
Helen Murphy, The College of William and Mary, Williamsburg, VA

Theme: Neuroscience, Systems to Molecules

Y503 - 4:00 A comprehensive genotype-fitness map of adaptation-driving mutations in yeast. **Barbara Dunn**.

Y504 - 4:15 Extrachromosomal Circular DNA – A Key Player in Creation of Copy Number Variation? **Henrik Møller**.

Y505 - 4:30 Deciphering common principles governing gene replaceability in yeast. **Aashiq Kachroo**.

Y506 - 4:45 The 1002 yeast genomes project. **Joseph Schacherer**.

Y507 - 5:00 Integrative Analysis of the Variation in the Regulatory Network Among Strains of Yeast. **Rohith Srivas**.

Y508 - 5:15 Comparative translatomics reveal a conserved class of noncanonical uORFs in yeast. **Joel McManus**.

Y509 - 5:30 Mating-type switching in the methylotrophic yeast *Hansenula polymorpha* is regulated by yeast mating and differentiation pathways. **Sara Hanson**.

Y510 - 5:45 The 3D organization of the diploid *Saccharomyces* genome. **Seungsoo Kim**.

Friday, July 15 7:30 PM – 9:30 PM
Palms Ballroom Sago/Sabal/Royal

Development and Evolution Joint Plenary Session

Moderator: Jeannie Lee, Massachusetts General Hospital and Harvard University, Cambridge, MA

7:30 The Fred Kavli Foundation Distinguished Lecture: Flexibility and variability in behavior at the gene-environment interface. **Cori Bargmann**.

8:00 Colinear Hox genes regulation in mammals. **Denis Duboule**.

8:30 Of mice, men and birds: meiotic recombination and its evolution. **Molly Przeworski**.

9:00 Fishing for the secrets of stickleback and human evolution. **David Kingsley**

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CROSS COMMUNITY WORKSHOPS

Saturday, July 16	8:0am – 10:00 am
Descriptions are in the Workshop section and in the app.	
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CRISPR-based Genome Engineering	Crystal Ballroom J2
Using CyVerse Cyberinfrastructure to Enable Data Intensive Research, Collaboration, and Education	Grand Ballroom 1
Model Organisms to Face Environmental Problems	Palms Ballroom Canary 1
Integrating Research and Teaching: Professional Development for Current and Future Faculty Members	St. Thomas
Informatics Resources to Aid the Genetic Dissection of Neural Circuitry	Palms Ballroom Canary 2
Everything you Wanted to Know about Sex	Palms Ballroom Sabal
modMetabolome: Model Organism Metabolomics Consortium Workshop	Grand Ballroom 8A
Feeding Behavior, Nutrition and Metabolism: Emerging Model Organisms	Palms Ballroom Royal
Functional Genomics for Conserved Gene Function Discovery	Crystal Ballroom J1
Cell Competition in Flies and Mice	Crystal Ballroom G1
Developmental Mechanics	Crystal Ballroom G2
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Gene Function Discovery within the IMPC Resource	Crystal Ballroom C
Utilizing NCBI Databases for Model Organism Research	Grand Ballroom 12-14
Systems Genetics in Complex Populations	Crystal Ballroom A-B
An Introduction to Using Galaxy for Genetic Data Analysis	Grand Ballroom 11
The InterMOD Consortium: A common interface to model organism data	Crystal Ballroom N-Q

Saturday, July 16 1:45 PM – 3:45 PM
Crystal Ballroom G2

NOTES

Revisiting Classical Genetics with New Technology

Moderator:
Aimee Dudley, Pacific Northwest Research Institute, Seattle, WA

Theme: Neuroscience, Systems to Molecules

Y511 - 1:45 A global yeast genetic network maps cellular function. **Michael Costanzo**.

Y512 - 2:00 A programmable sensor for protein solubility in yeast uncovers ecological prion-switching factors. **Gregory Newby**.

Y513 - 2:15 Identifying synthetic cytotoxic genetic interactions with DNA damaging therapeutic agents. **Xuesong Li**.

Y514 - 2:30 High throughput protein-protein interaction sequencing using iSeq. **Zhimin Liu**.

Y515 - 2:45 Scalable tools for the quantitative analysis of chemical-genetic interactions from sequencing-based chemical-genetic interaction screens. **Scott Simpkins**.

Y516 - 3:00 One library to make them all: streamlining the creation of yeast libraries via a SWAp-Tag strategy. **Uri Weill**.

Y517 - 3:15 NGS for "No-pain Genetic Screens": Using transposons and Next-Gen Sequencing to unveil all important yeast loci in one go. **Agnes Michel**.

Y518 - 3:30 Exploring Functional Genetic Suppression Interactions on a Global Scale. **Jolanda van Leeuwen**.

Saturday, July 16 4:00 PM – 6:00 PM
Crystal Ballroom C-D

Beyond cerevisiae: Exploiting yeast diversity in nature to understand genome evolution in diverse environments

Organizers:
Christian Landry, Universite Laval, Quebec, Canada, and
Judith Berman, Tel Aviv University, Israel

Yeast research has extended far beyond the study of *Saccharomyces cerevisiae* and outside of the laboratory in the recent years. Our understanding of fundamental cellular and evolutionary processes have benefitted from the synergy created by the use of the resources developed for *S. cerevisiae* and the diversity of life-style, morphological and metabolic diversity found in closely related yeasts and fungi. This workshop will bring together people who are contributing to this progress by looking at how diverse yeast species adapt to various environmental settings, including natural forests, industrial brewing and human infections.

TALKS (12 min + 3 min for questions)
Bin He, Evolution of gene regulation in nutrient starvation response between free-living and commensal yeast.

Ching-Hua Shih, Cis-acting variation in gene expression dynamics within and between *Saccharomyces* species.

Kangzhen Dong, Hsp90 perturbations affect genome integrity in *Candida albicans*.

Catherine L. Ludlow, Independent origins of yeast associated with coffee and cacao fermentation.

Cullen Roth, Virulence QTLs and Genome-wide Recombination Rates in *Cryptococcus*.

EXPRESS TALKS (5 minutes, no questions)
Chris Eberlein, A reverse ecology approach to understand the proximate and ultimate causes of phenotypic divergence during species formation

Arturo Hernandez Cervantes, Rme1 controls chlamydospore formation in the human pathogenic yeast *Candida albicans*.

Dee Robinson, High-copy number gene expression in different *Saccharomyces cerevisiae* strains reveals the impact of natural variation in wild yeast.

Lauren C. Ames, Identifying novel factors underlying stress resistance in the pathogenic yeast *Candida glabrata*.

David Peris Navarro, Mining *Saccharomyces* diversity and experimental evolution for cellulosic biofuel production

Saturday, July 16 4:00 PM – 6:00 PM
Crystal Ballroom G2

Getting Even More Out of SGD

Organizers:
Stacia R. Engel, Stanford University, CA, and
Michael Cherry, Stanford University, CA

The Saccharomyces Genome Database interactive workshop will discuss ways to explore and discover information at SGD. We will present and discuss our data repository, tools such as Genome Browser and YeastMine, and ways to delve into the treasure trove of available yeast data. We'll present recent additions to SGD, including the Variant Viewer, which presents sequence comparisons for genes in twelve widely-used *S. cerevisiae* genomes. New users will learn how to use SGD to support their research. Seasoned users will learn how to get even more out the SGD that they already know and love.

J. Michael Cherry, Stanford University - Welcome & Introduction

Pedro Assis, Stanford University - New search capabilities in SGD

Kalpana Karra, Stanford University - YeastMine: SGD's powerful data warehouse

Sage Hellerstedt, Stanford University - Post-translational modifications at SGD

Olivia Lang, Stanford University - Variant Viewer, JBrowse & other sequence tools at SGD

Stacia Engel, Stanford University - Homology curation at SGD

Kevin MacPherson, Stanford University - SGD outreach: YouTube, video tutorials, & webinars

Saturday, July 16 7:30 PM – 9:30 PM
Crystal Ballroom G2

Structural and Cellular Organization

Moderator:
Dan Gottschling, Calico Labs, South San Francisco, CA

Theme: Neuroscience, Systems to Molecules

Y519 - 7:30 Lee Hartwell Lecture. From Yeast to Worms and Beyond: Folding Dynamic Chromatin. **Susan Gasser**.

Y520 - 8:00 The yeast polo kinase, Cdc5, inhibits cell growth and affects nuclear morphology during a mitotic arrest. **Alison Walters**.

Y521 - 8:15 Reconstitution of the microtubule nucleation system of *Candida albicans*. **Elmar Schiebel**.

Y522 - 8:30 Capture-shrinkage of astral microtubules by budding yeast dynein in cells lacking cortical endoplasmic reticulum tethering proteins Scs2 and Scs22. **Wei-Lih Lee**.

Y523 - 8:45 Role of the microtubule cytoskeleton in the regulation of Cdc42 dynamics. **Marbelys Rodriguez Pino**.

Y524 - 9:00 Spindle pole body assembly into the nuclear envelope in budding and fission yeast. **Sue Jaspersen**.

Y525 - 9:15 Investigating the role of septin phosphorylation in controlling of septin organization at cytokinesis. **Molly McQuilken**.

Sunday, July 17 8:00 AM – 10:00 AM
Crystal Ballroom G2

The Fat and Sweet Sides of Life

Moderator:
Karl Kuchler, Medical University Vienna, Austria

Theme: Neuroscience, Systems to Molecules

Y526 - 8:00 The respiration/fermentation switch in yeast requires protein aggregation. **Kobi Simpson-Lavy**.

Y527 - 8:15 SNX-BAR proteins contribute to autophagy via trafficking of lipids required for autophagosome-vacuole fusion. **Richard Chi**.

Y528 - 8:30 Rewiring of lipid metabolism in a yeast mutant devoid of the major membrane lipid phosphatidylcholine. **Anton de Kroon**.

Y529 - 8:45 The lysine acetyltransferase complex NuA4 regulates cellular phosphatidylinositol-4-phospahate and phospholipid metabolism. **Louis Dacquay**.

Y530 - 9:00 An unexpected role for casein kinases in glucose sensing and signaling. **Chris Snowdon**.

9:15 Poster Awards

Sunday, July 17 10:30 AM – 12:30 PM
Palms Ballroom Sago/Sabal/Royal

Technology and its Application Joint Plenary Session

Moderator: Phil Hieter, University of British Columbia, Vancouver, Canada

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10:30 The gut microbiota and childhood undernutrition: looking at human development from a microbial perspective. **Jeffrey Gordon**.

11:00 Synthesis of the yeast genome and beyond. **Jef Boeke**.

11:30 Tomorrow's Table: Organic Farming, Genetics and the Future of Food. **Pamela Ronald**.

12:00 CRISPR-Cas Genome Engineering: Biology, Technology and Ethics. **Jennifer Doudna**. (Pre-recorded talk)

12TH INTERNATIONAL CONFERENCE ON ZEBRAFISH DEVELOPMENT AND GENETICS

Plenary and Platform Sessions

12Th International Conference On Zebrafish Development And Genetics

SCHEDULE AT-A-GLANCE

Wednesday, July 13		
2:00pm-9:30pm	Speaker Ready Room Open	Hall of Cities - Anaheim
7:00pm-9:00pm	Scientific Session: Regeneration and Stem Cells	Grand Ballroom 7A
9:00pm-11:00pm	Opening Mixer with Exhibits	Cypress Ballroom
Thursday, July 14		
7:00am-5:00pm	Speaker Ready Room Open	Hall of Cities -Anaheim
7:45am-10:00am	Genetics and Determinants of Health Joint Plenary Session	Palms Ballroom
8:00am-4:00pm	Exhibits Open	Cypress Ballroom
9:00am-8:00pm	Demo Room: MOD (FlyBase, MGI, SGD, WormBase, Zfin) Demo Room Open	Palms Ballroom Canary 3-4
10:30am-12:30pm	Scientific Session: Early Development and Morphogenesis Neural Circuits, Neurophysiology and Behavior	Grand Ballroom 7A Grand Ballroom 7B
12:30pm-1:30pm	Mentoring Roundtables #1	North Tower - Harbor Beach
12:30pm-1:30pm	Speaking Up for Genetics and Model Organism Research	Crystal Ballroom H
1:30pm-3:30pm	Poster Presentations 1:30pm-2:30pm: Even-numbered posters 2:30pm-3:30pm: Odd-numbered posters	Cypress Ballroom
1:30pm-3:30pm	GeneticsCareers Center and Job Fair	Cypress Ballroom 1C
4:00pm-6:00pm	Concurrent Scientific Sessions: Cardiac Development Gene Regulation and RNA Biology	 Grand Ballroom 7A Grand Ballroom 7B
4:00pm-6:00pm	Plenary Session and Workshop for Undergraduate Researchers	North Tower - Sawgrass
7:45pm-9:45pm	Scientific Session: Neurobiology	Grand Ballroom 7A
10:00pm-11:30pm	*Science Cafe Event	Palms Ballroom Sabal
Friday, July 15		
7:00am-5:00pm	Speaker Ready Room Open	Hall of Cities - Anaheim
8:00am-9:30am	Concurrent Scientific Sessions: t Models of Human Disease Evolution	 Grand Ballroom 7A Grand Ballroom 7B
8:00am-4:30pm	Exhibits Open	Cypress Ballroom
9:00am-8:00pm	Demo Room: MOD (FlyBase, MGI, SGD, WormBase, Zfin) Demo Room Open	Palms Ballroom Canary 3-4
10:00am-12:00pm	Concurrent Scientific Session: Emerging Technologies Imaging Signaling Organogenesis (Mesoderm, Endoderm, Ectoderm)	 Grand Ballroom 1-2 Grand Ballroom 7B Grand Ballroom 7A
12:00pm-1:30pm	*Editor's Panel Discussion and Roundtable	North Tower - Harbor Beach

** Ticketed Event*

#TAGC16

Friday, July 15 (continued)		
1:30pm-3:30pm	Poster Presentations 1:30pm-2:10pm: "A" poster authors present 2:10pm-2:50pm: "B" poster authors present 2:50pm-3:30pm: "C" poster authors present	Cypress Ballroom
1:30pm-3:30pm	GeneticsCareers Center	Cypress Ballroom 1C
2:00pm-2:45pm	GeneticsCareers Workshop - Nailing the Job Talk	Cypress Ballroom 1B
4:00pm-6:00pm	Scientific Session: Highlighted Talks, Awards Ceremony and Community Meeting	Grand Ballroom 7A
6:00pm-7:30pm	*Women in Genetics Panel and Networking	North Tower - Harbor Beach
7:30pm-9:30pm	Development and Evolution Joint Plenary Session	Palms Ballroom
Saturday, July 16		
7:00am-5:00pm	Speaker Ready Room Open	Hall of Cities - Anaheim
8:00am-10:00am	Workshops: See topics and descriptions under the Workshop Section	Multiple locations
8:00am-12:00pm	Exhibits Open	Cypress Ballroom
8:00am-9:00am	Trainee Bootcamp Workshops: Session 1	North Tower
9:00am-10:00am	Trainee Bootcamp Workshops: Session 2	North Tower
10:00am-12:00pm	Poster Presentations 10:00am-11:00am Odd-numbered posters 11:00am-12:00pm Even-numbered posters	Cypress Ballroom *(Posters must be removed by 1pm)*
10:00am-12:00pm	GeneticsCareers Center	Cypress Ballroom 1C
10:30am-11:15am	GeneticsCareers Workshop	Cypress Ballroom 1B
12:15pm-1:45pm	*Mentoring Roundtables #2	North Tower - Harbor Beach
1:45pm-3:45pm	Concurrent Scientific Sessions: Neural Development and Regeneration Cancer	 Grand Ballroom 7A Grand Ballroom 7B
4:00pm-6:00pm	Scientific Session: Models of Human Disease	Grand Ballroom 7A
7:30pm-9:30pm	Concurrent Scientific Session: Haematopoiesis and Vascular Biology Cell Biology and Polarity	 Grand Ballroom 7A Grand Ballroom 7B
Sunday, July 17		
8:00am-10:00am	Scientific Sessions: Genome Editing	Grand Ballroom 7A
10:30am-12:30pm	Technology and its Application Joint Plenary Session	Palms Ballroom

** Ticketed Event*

Wednesday, July 13 7:00 PM – 9:00 PM
Grand Ballroom 7A

Regeneration and Stem Cells

Moderator:
Richard Dorsky, University of Utah

Theme: Stem Cell, Regeneration and Germline

Z531 - 7:00 Modulation of tissue repair by regeneration enhancer elements. **Junsu Kang**.

Z532 - 7:15 A screen for epigenetic regulators reveals a requirement for Ing4 in HSC specification and function. **Katie Kathrein**.

Z533 - 7:30 Zebrafish T cells mediate organ-specific regenerative programs . **Kazu Kikuchi**.

Z534 - 7:45 Production of medaka individuals derived from cryopreserved spermatogonia by allogenic transplantation. **Shinsuke Seki**.

Z535 - 8:00 Zebrafish heart regeneration requires alleviation of cardiomyocyte genomic stress by BMP signaling. **Gilbert Weidinger**.

Z536 - 8:15 Autophagy Activation via FGF Signaling Regulates Cytoplasmic Remodeling of Regenerating Adult Zebrafish Myocytes. **Alon Kahana**.

Z537 - 8:30 Macrophages mediate the repair of brain vascular rupture through direct physical adhesion and mechanical traction. **Lingfei Luo**.

Z538 - 8:45 Four and a Half LIM Domains 1b (Fhl1b) Is Essential for Regulating the Liver versus Pancreas Fate Decision and for beta-Cell Regeneration. **Chong Shin**.

Thursday, July 14 7:45 AM – 10:00 AM
Palms Ballroom Sago/Sabal/Royal

Genetics and Determinants of Health Joint Plenary Session

Moderator: Lynn Cooley, Yale University, New Haven, CT

7:45 Welcome, Stan Fields, University of Washington, Seattle, GSA President.

7:50 Opening Remarks, Phil Hieter, University of British Columbia and Jeannie Lee, Harvard University, TAGC Organizers.

8:00 Translating Zebrafish Development to the Clinic. **Leonard Zon**.

8:30 Using *Drosophila* to unravel the mysteries of sleep: when, why and how. **Amita Sehgal**.

9:00 New insights into the pathogenesis and treatment of Marfan syndrome and other presentations of thoracic aortic aneurysm. **Harry Dietz**.

9:30 Accelerating Insights from Basic Genetics. **Francis Collins**.

Thursday, July 14 10:30 AM – 12:30 PM
Grand Ballroom 7A

Early Development and Morphogenesis

Moderator:
Mary Mullins, University of Pennsylvania School of Medicine

Theme: Development and Morphogenesis

NOTES

Z539 - 10:30 A Meiotic-Vegetal Center Couples Oocyte Polarization with Meiosis. **Yaniv Elkouby**.

Z540 - 10:45 Investigating the function of the yolk cell microtubules during zebrafish epiboly. **Ashley Bruce**.

Z541 - 11:00 *Myo1D*, an unconventional myosin regulates Kupffer's vesicle lumenogenesis in zebrafish. **Manush Saydmohammed**.

Z542 - 11:15 Combinatorial signaling interactions pattern the dorsal-ventral mesodermal axis by controlling bHLH transcription factor activity. **Benjamin Martin**.

Z543 - 11:30 Functional conservation of the zebrafish germ plasm organizer Bucky ball and *Drosophila* Oskar. **Pritesh Krishnakumar**.

Z544 - 11:45 *Fibroblast growth factor 24* is required for early somatic gonad development in zebrafish. **Dena Leerberg**.

Z545 - 12:00 Wnt signaling regulates progenitor cell identity and collective cell migration in the lateral line. **Hillary McGraw**.

Z546 - 12:15 Migratory neural crest is required for patterning and morphogenesis of the embryonic optic cup. **Chase Bryan**.

Thursday, July 14 10:30 AM – 12:30 PM
Grand Ballroom 7B

Neural Circuits, Neurophysiology and Behavior

Moderator:
Alex Schier, Harvard University, MA

Theme: Neuroscience, Systems to Molecules

Z547 - 10:30 Neuronal connectivity analysis of wild-type and mutant zebrafish with transsynaptic virus and 3D brain mapping. **Manxiu Ma**.

Z548 - 10:45 Assembling the MET complex in sensory hair cells: Tomt regulates the trafficking of Tmc proteins to the site of mechanotransduction. **Timothy Erickson**.

Z549 - 11:00 Asymmetric activation of the dorsal habenulae correlates with larval recovery from electric shock. **Erik Duboué**.

Z550 - 11:15 Linking function to cell type in the optic flow responsive circuit in zebrafish larva. **Anna Kramer**.

Z551 - 11:30 A forward genetic screen identifies the G-protein coupled calcium receptor CaSR as a regulator of simple decision-making. **Roshan Jain**.

Z552 - 11:45 Feeding state modulates behavioral choice and processing of prey stimuli in the zebrafish tectum. **Alessandro Filosa**.

Z553 - 12:00 Impact of circadian protein Period2 on glucocorticoid signaling and depression regulation. **Mingyong Wang**.

Z554 - 12:15 Visualizing Inhibitory Structural Synaptic Plasticity during Day and Night. **Idan Elbaz**.

Thursday, July 14 4:00 PM – 6:00 PM
Grand Ballroom 7A

Cardiac Development

Moderator:
Deborah Yelon, University of California, San Diego

Theme: Development and Morphogenesis

Z555 - 4:00 Identifying novel regulators of early cardiac development in zebrafish using single-cell mRNA-seq and ATAC-seq. **Xuefei Yuan**.

Z556 - 4:15 PDGF signaling directs cardiomyocyte movement toward the midline during heart tube assembly. **Deborah Yelon**.

Z557 - 4:30 Convergence of FGF and Nodal signals on the actin cytoskeleton controls cardiac cell migration in zebrafish. **Meagan Grant**.

Z558 - 4:45 Cardiomyocyte fusion in zabrafish. **Suphansa Sawamiphak**.

Z559 - 5:00 HDAC1 repression of retinoic acid-responsive genes promotes second heart field development. **Yuntao Charlie Song**.

Z560 - 5:15 Epigenetic control of zebrafish cardiogenesis by TET2/3. **Yahui Lan**.

Z561 - 5:30 Multicolor mapping of the cardiomyocyte proliferation dynamics that construct the atrium. **Matthew Foglia**.

Z562 - 5:45 Spatiotemporal regulation of cell size and nuclear content during regeneration of the epicardium. **Jingli Cao**.

Thursday, July 14 4:00 PM – 6:00 PM
Grand Ballroom 7B

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Gene Regulation and RNA Biology

Moderator:
Joan Heath, Walter and Eliza Hall Institute of Medical Research, Australia

Theme: Genomics and Gene Regulation

Z563 - 4:00 The zebrafish embryo mRNA interactome reveals distinct roles for hnRNP A1 during the maternal to zygotic transition. **Karla Neugebauer**.

Z564 - 4:15 Clearance of maternal mRNAs via 3′-end uridylation in vertebrate embryos. **Hyeshik Chang**.

Z565 - 4:30 Testing the in vivo consequences of splicing and transcriptional crosstalk. **Adriana De La Garza**.

Z566 - 4:45 Longterm Regulation of Zebrafish Behavior by Maternal Rest/NRSF is Mediated by *snap25a/b*. **Howard Sirotkin**.

Z567 - 5:00 TFAP2A drives melanocyte gene expression in parallel with MITF. **Hannah Seberg**.

Z568 - 5:15 Tet-mediated DNA hydroxymethylation is required for retinal neurogenesis. **Pawat Seritrakul**.

Z569 - 5:30 Genomic dissection of conserved transcriptional regulation in intestinal epithelial cells. **Colin Lickwar**.

Z570 - 5:45 Constructing gene regulatory networks underlying fate specification of multipotent progenitors in the zebrafish neural crest. **Kleio Petratou**.

Thursday, July 14 7:45 PM – 9:45 PM
Grand Ballroom 7A

Neurobiology

Moderator:
Teresa Nicolson, Oregon Health & Science University

Theme: Neuroscience, Systems to Molecules

Z571 - 7:45 Emergence of Patterned Activity in the Developing Zebrafish Spinal Cord. **Yinan Wan**.

Z572 - 8:00 Automated 3D cellular-resolution phenotyping of whole zebrafish with in situ RNA probe libraries. **Yuelong Wu**.

Z573 - 8:15 A conserved role for Lef1-mediated Wnt signaling in hypothalamic neurogenesis and anxiety. **Yuanyuan Xie**.

Z574 - 8:30 Injury-induced *ctgfa* directs glial bridging and spinal cord regeneration in zebrafish. **Mayssa Mokalled**.

Z575 - 8:45 Light-dependent regulation of sleep/wake states by prokineticin 2 in zebrafish. **David Prober**.

Z576 - 9:00 A forward genetic screen identifies Huntingtin-interacting protein 14 as an *in vivo* regulator of zebrafish habituation learning. **Jessica Nelson**.

Z577 - 9:15 Larval zebrafish show individual left/right bias in movement direction during local light-search behavior. **Eric Horstick**.

Z578 - 9:30 Neuro-taxonomy: Towards a complete parts list of the zebrafish central nervous system. **Herwig Baier**.

Friday, July 15 8:00 AM – 9:30 AM
Grand Ballroom 7A

Models of Human Disease

Moderator:
James Amatruda, University of Texas Southwestern Medical Center

Theme: Disease Models and Aging

Z579 - 8:00 Identifying roles for Pbx factors in heart development and congenital heart defects using zebrafish genome engineering. **Lisa Maves**.

Z580 - 8:15 An essential splice site mutation in flt1 protects against early-stage atherosclerosis in zebrafish larvae. **Marcel den Hoed**.

Z581 - 8:30 Mutations in COL22A1 cause a loss of vascular integrity that result in intracranial aneurysms. **Quynh Ton**.

Z582 - 8:45 Cure modeling human genetic skeletal muscle disorders. **Noriko Umemoto**.

Z583 - 9:00 Fmrp interacts with Adar and regulates RNA editing, synaptic density and locomotor activity in zebrafish. **Adi Shamay-Ramot**.

Z584 - 9:15 Pyruvate carboxylase functions in astrocytes to regulate habituation learning. **Marc Wolman**.

Friday, July 15 8:00 AM – 9:30 AM
Grand Ballroom 7B

NOTES

Evolution

Moderator:
James Lister, Virginia Commonwealth University

Theme: Evolution and Quantitative Biology

Z585 - 8:00 Introgression in Zebrafish and related species was mediated by genome structure. **Braedan McCluskey**.

Z586 - 8:15 Regulation of actinodin1 in embryonic fins via tissue-specific cis-acting regulatory elements: a potential mechanism for the loss of these genes during the fin-to-limb transition. **Robert Lalonde**.

Z587 - 8:30 The MITF family member *tfec* functions in zebrafish neural crest pigment cell fate diversification. **James Lister**.

Z588 - 8:45 Evolutionary Conservation of Tcf12 and Twist1 Function in Coronal Suture Development. **Camilla Teng**.

Z589 - 9:00 Fish synovial joints as new models for joint development and disease. **Joanna Smeeton**.

Z590 - 9:15 Cavefish evolution as a natural model for metabolic diseases. **Nicolas Rohner**.

Friday, July 15 10:00 AM – 12:00 PM
Grand Ballroom 1-2

Emerging Technologies – Imaging

Moderator:
Kristen Kwan, University of Utah

Theme: New Technology and Resources

Z591 - 10:00 In toto imaging of osteoblast cell cycle dynamics in regenerating zebrafish scales. **Ben Cox**.

Z592 - 10:15 Plasticity & Robustness in Gastrulation: Siamese Zebrafish. **Antonio Ortiz**.

Z593 - 10:30 Spatiotemporal regulation of metalloprotease activity in DV patterning. **Francesca Tuazon**.

Z594 - 10:45 Automated approaches to sample handling and high-throughput behavioral screening of zebrafish. **Ravindra Peravali**.

Z595 - 11:00 Quantitative in vivo optical tomography of cancer progression and vasculature development in adult zebrafish. **Nicola Lockwood**.

Z596 - 11:15 Pancellular, whole-organism tissue microCT as a basis for organismal phenomics. **Keith Cheng**.

Z597 - 11:30 Automated Segmentation and Morphological Characterization of Neuronal Cell Nuclei in Synchrotron MicroCT Images of Whole Zebrafish. **Yifu Ding**.

Z598 - 11:45 Diverse structures and functions of pharyngeal teeth in teleost (zebrafish, medaka, carp, snowflake moray) live-imaged by synchrotron X-ray cinematography. **Kohei Hatta**.

Friday, July 15 10:00 AM – 12:00 PM
Grand Ballroom 7B

Signaling

Moderator:
Anming Meng, Tsinghua University, China

Theme: Disease Models and Aging

Z599 - 10:00 Calcium signalling mediated by *tmem33* is essential for endothelial tip cell function during angiogenesis in zebrafish. **Aaron Savage**.

Z600 - 10:15 Lgr6 Is a Wnt Target That Promotes Support Cell Proliferation in the Regenerating Lateral Line Neuromast. **Jonathan Kniss**.

Z601 - 10:30 In vivo ranking of RASopathy MEK1 variants using functional assays in zebrafish and *Drosophila*. **Granton Jindal**.

Z602 - 10:45 Hedgehog Signaling in Choroid Fissure Formation and Coloboma. **Hannah Gordon**.

Z603 - 11:00 The role of the Nkd EF-hand in modulating Wnt signaling outputs. **Autumn Marsden**.

Z604 - 11:15 Glycolysis meets Fgf signaling: The glycolytic enzyme PGK1 is required non-autonomously for Fgf-dependent specification of otic neurons in zebrafish. **Bruce Riley**.

Z605 - 11:30 Shh promotes direct interactions between epidermal cells and osteoblast progenitors to shape regenerated zebrafish bone. **Kryn Stankunas**.

Z606 - 11:45 A genetic mechanism to sense and respond to enhanced cellular sphingosine levels during development. **Todd Evans**.

Friday, July 15 10:00 AM – 12:00 PM
Grand Ballroom 7A

NOTES

Organogenesis (Mesoderm, Endoderm, Ectoderm)

Moderator:
Iain Drummond, MGH/Harvard Medical School, MA

Theme: Development and Morphogenesis

Z607 - 10:00 Developmental origin of muscle-associated fibroblasts. **Peng Huang**.

Z608 - 10:15 Hepatic nuclear receptor 4 alpha mediates microbial control of host gene expression in the zebrafish digestive tract. **James Davison**.

Z609 - 10:30 Deciphering the role of Isl1 in enteroendocrine cell differentiation. **Marianne Voz**.

Z610 - 10:45 Liver-enriched gene 1, a glycosylated secretory protein, binds to FGFR and mediates an anti-stress pathway to protect liver development in zebrafish. **Jinrong Peng**.

Z611 - 11:00 The Fatty Acid Chain Elongase, Elovl1, Is Required for Kidney and Swim Bladder Development during Zebrafish Embryogenesis. **Sushil Bhandari**.

Z612 - 11:15 Wnt signaling is required for adult zebrafish kidney regeneration. **Caramai Kamei**.

Z613 - 11:30 Gain-of-function mutations of *mau*/DrAqp3a influence zebrafish pigment pattern formation through the tissue environment. **Anastasia Eskova**.

Z614 - 11:45 Evidence for ECM-Sema3d interactions controlling skeletal regeneration in the fin. **M. Kathryn Iovine**.

Friday, July 15 4:00 PM – 6:00 PM
Grand Ballroom 7A

Highlighted Talks, Awards Ceremony and Community Meeting

Moderator:
Rebecca Burdine, Princeton University, NJ

Z615 - 4:00 Positional cloning of *cloche*, a gene that drives endothelial and hematopoietic lineage specification. **Didier Stainier**.

Z616 - 4:30 **Chi-Bin Chien Award Presentation:** Molecular asymmetry at electrical synapses – at the gap and beyond. **Adam Miller**.

Community Meeting

5:00 Conference Announcements.

5:15 Resource Center Presentations.

5:30 Open Community Discussion.

Friday, July 15 7:30 PM – 9:30 PM
Palms Ballroom Sago/Sabal/Royal

Development and Evolution Joint Plenary Session

Moderator: Jeannie Lee, Massachusetts General Hospital and Harvard University, Cambridge, MA

7:30 **The Fred Kavli Foundation Distinguished Lecture:** Flexibility and variability in behavior at the gene-environment interface. **Cori Bargmann**.

8:00 Colinear Hox genes regulation in mammals. **Denis Duboule**.

8:30 Of mice, men and birds: meiotic recombination and its evolution. **Molly Przeworski**.

9:00 Fishing for the secrets of stickleback and human evolution. **David Kingsley**.

CROSS COMMUNITY WORKSHOPS

Saturday, July 16	**8:0am – 10:00 am**
Descriptions are in the Workshop section and in the app.	
Automated Tracking for Quantitative Phenotyping	Grand Ballroom 3
CRISPR-based Genome Engineering	Crystal Ballroom J2
Using CyVerse Cyberinfrastructure to Enable Data Intensive Research, Collaboration, and Education	Grand Ballroom 1
Model Organisms to Face Environmental Problems	Palms Ballroom Canary 1
Integrating Research and Teaching: Professional Development for Current and Future Faculty Members	St. Thomas
Informatics Resources to Aid the Genetic Dissection of Neural Circuitry	Palms Ballroom Canary 2
Everything you Wanted to Know about Sex	Palms Ballroom Sabal
modMetabolome: Model Organism Metabolomics Consortium Workshop	Grand Ballroom 8A
Feeding Behavior, Nutrition and Metabolism: Emerging Model Organisms	Palms Ballroom Royal
Functional Genomics for Conserved Gene Function Discovery	Crystal Ballroom J1
Cell Competition in Flies and Mice	Crystal Ballroom G1
Developmental Mechanics	Crystal Ballroom G2
Model Systems in Drug Discovery	Grand Ballroom 2
CRISPR/Cas9 - Techniques and applications in Fish, Flies, & Mice	Grand Ballroom 7A
Gene Function Discovery within the IMPC Resource	Crystal Ballroom C
Utilizing NCBI Databases for Model Organism Research	Grand Ballroom 12-14
Systems Genetics in Complex Populations	Crystal Ballroom A-B
An Introduction to Using Galaxy for Genetic Data Analysis	Grand Ballroom 11
The InterMOD Consortium: A common interface to model organism data	Crystal Ballroom N-Q

Saturday, July 16 1:45 PM – 3:45 PM
Grand Ballroom 7A

Neural Development and Regeneration

Moderator:
Yevgenya Grinblat, University of Wisconsin- Madison

Theme: Neuroscience, Systems to Molecules

Z617 - 1:45 Cell proliferation and differentiation are controlled by different Fgf downstream targets during sensory hair cell regeneration. **Mark Lush**.

Z618 - 2:00 Cilia genes play differing roles in hair cells. **Tamara Stawicki**.

Z619 - 2:15 The Agrin receptor Lrp4 promotes peripheral nerve regeneration through a novel, MuSK-independent pathway. **Katherine Gribble**.

Z620 - 2:30 *pregnancy-associated plasma protein-aa* (*pappaa)* mediates the development and function of distinct retinal circuits. **Andrew Miller**.

Z621 - 2:45 CachD1 is a novel type I transmembrane protein that regulates the development of habenular asymmetry in zebrafish. **Ana Faro**.

Z622 - 3:00 New pathways required for zebrafish brain Left-Right asymmetry and bilateral symmetry. **Michael Rebagliati**.

Z623 - 3:15 Roundabout2 and exotosin-like 3 promote target specific peripheral nerve regeneration *in vivo*. **Patricia Murphy**.

Z624 - 3:30 MECP2-IGF1 signaling determines how neural circuits interpret sensory information. **Nicholas Santistevan**.

Saturday, July 16 1:45 PM – 3:45 PM
Grand Ballroom 7B

Cancer

Moderator:
Len Zon, Harvard Medical School, MA

Theme: Intracellular Dynamics

Z625 - 1:45 Selenoprotein H is an essential regulator of redox homeostasis that cooperates with p53 in development and tumorigenesis. **Andrew Cox**.

Z626 - 2:00 Single-cell imaging of normal and malignant cell engraftment into optically clear immune deficient zebrafish. **Qin Tang**.

Z627 - 2:15 Dynamics of innate immunity guided tumor cell motility *in vivo*. **Minna Roh-Johnson**.

Z628 - 2:30 *tp53*-Deficient Zebrafish Models of Malignant Nerve Sheath Tumor, Leukemia, Angiosarcoma, Rhabdomyosarcoma, and Germ Cell Tumors. **Myron Ignatius**.

Z629 - 2:45 Investigating novel non-oncogene targets for cancer therapies. **Joan Heath**.

Z630 - 3:00 Chemical genetic approach identifies role of proton sensing GPR68 in modulation of migration in melanoma. **Charles Williams**.

Z631 - 3:15 Zebrafish Pediatric Brain Tumor Modeling for Pre-clinical Drug Screening. **Rodney Stewart**.

Z632 - 3:30 Dissecting the mechanism of oncogenic glutamate receptor signaling in melanocytes and melanoma. **Ana Neto**.

Saturday, July 16 4:00 PM – 6:00 PM
Grand Ballroom 7A

NOTES

Models of Human Disease

Moderator:
Liz Patton, Inst for Genetics and Molecular Medicine, UK

Theme: Disease Models and Aging

Z633 - 4:00 GDF6-induced BMP signaling promotes melanoma progression by reawakening a pro-survival neural crest identity. **Craig Ceol**.

Z634 - 4:15 Humanising the zebrafish liver shifts metabolic profiles, improves pharmacokinetics of CYP3A4 substrates and couples with development of fluorescent screening biomarkers. **Tom Carney**.

Z635 - 4:30 Missing heritability for orofacial clefing identified through dissection of the gene regulatory network governing zebrafish periderm differentiation. **Robert Cornell**.

Z636 - 4:45 Linking cilia motility and cerebrospinal fluid flow to the etiopathogenesis of adolescent idiopathic scoliosis. **Daniel Grimes**.

Z637 - 5:00 Macrophage epithelial reprogramming underlies mycobacterial granuloma formation and promotes infection. **Mark Cronan**.

Z638 - 5:15 Metabolic stress induces Ripk3- and macrophage-dependent β-cell death in a zebrafish model of insulin resistance. **Wenbiao Chen**.

Z639 - 5:30 Genetically encoded apolipoprotein reporters illuminate lipoprotein dynamics in the larval zebrafish. **Steven Farber**.

Z640 - 5:45 Estrogens Suppress a Behavioral Phenotype in Zebrafish Mutants of the Autism Risk Gene, CNTNAP2. **Ellen Hoffman**.

Saturday, July 16 7:30 PM – 9:30 PM
Grand Ballroom 7B

Haematopoiesis and Vascular Biology

Moderator:
Jill de Jong, The University of Chicago, IL

Theme: Development and Morphogenesis

Z641 - 7:30 Macrophage-mediated thrombus dissolution is rate limiting during vascular repair. **Hilary Clay**.

Z642 - 7:45 A story in translation: Phosphoinositide signaling and angiogenesis. **Brant Weinstein**.

Z643 - 8:00 LSD1-dependent shutdown of *etv2* promotes hematopoietic differentiation in hemangioblasts. **Makoto Kobayashi**.

Z644 - 8:15 Growth Differentiation Factor 6 (GDF6) promotes vascular quiescence by maintaining stable endothelial cell adherens junctions. **Shlomo Krispin**.

Z645 - 8:30 Embryonic hematopoiesis in vertebrate somites gives rise to definitive hematopoietic stem cells. **Anming Meng**.

Z646 - 8:45 RUNX1-independent development of HSC and definitive hematopoiesis in zebrafish. **Pu Liu**.

Z647 - 9:00 TopBP1 Governs Hematopoietic Stem/Progenitor Cells Survival in Zebrafish Definitive Hematopoiesis. **Weijun Pan**.

Z648 - 9:15 Structural basis of endothelial Adgra2/Reck complex activity during Wnt7-dependent brain angiogenesis and blood-brain barrier formation in zebrafish. **Naguissa Bostaille**.

Saturday, July 16 7:30 PM – 9:30 PM
Grand Ballroom 7A

Cell Biology and Polarity

Moderator:
Ashley Bruce, University of Toronto, Canada

Theme: Intracellular Dynamics

Z649 - 7:30 Microtubule-actin crosslinking factor (Macf1) Function in Oocyte Polarity and Nuclear Positioning. **Matias Escobar-Aguirre**.

Z650 - 7:45 Actr10, a component of the dynactin complex, regulates retrograde mitochondrial transport in axons. **Catherine Drerup**.

Z651 - 8:00 Apoptotic cartilage remodelng requires Kinesin I. **Adrian Santos**.

Z652 - 8:15 Protocadherin18a organizes notochord formation by regulating E-cadherin-mediated cell migration. **Bernadett Bösze**.

Z653 - 8:30 RGMa/Neogenin signaling promotes neural convergence by enhancing cell polarity and organizing microtubules. **Sharlene Brown**.

Z654 - 8:45 Hippo signaling regulates ventricle morphogenesis via Taz-dependent activation of Wnt and Notch signaling. **Lyndsay Selland**.

Z655 - 9:00 The Joubert syndrome protein INPP5E controls ciliogenesis by regulating phosphoinositides at the apical memebrane. **Ying Cao**.

Z656 - 9:15 An unexpected influence of the extracellular matrix on cilia function in zebrafish. **Ellen LeMosy**.

Sunday, July 17 8:00 AM – 10:00 AM
Grand Ballroom 7A

Genome Editing

Moderators:
Bettina Schmid, DZNE, Munich, Germany, and
Darius Balciunas, Temple University, PA

Theme: New Technology and Resources

Z657 - 8:00 A high-throughput workflow for CRISPR/Cas9 mediated targeted mutagenesis to model human disease genes in zebrafish . **Gaurav Varshney**.

Z658 - 8:15 Resource Construction at the China Zebrafish Resource Center. **Yong-Hua Sun**.

Z659 - 8:30 Phenome-scale screen defines post-embryonic gene function during the zebrafish larval-to-adult transition. **Ricardo Fuentes**.

Z660 - 8:45 Precise editing of the zebrafish genome by homologous recombination made simple and efficient. **Kazuyuki Hoshijima**.

9:00 Workshop and Roundtable.

Sunday, July 17 10:30 AM – 12:30 PM
Palms Ballroom Sago/Sabal/Royal

Technology and its Application Joint Plenary Session

Moderator: Phil Hieter, University of British Columbia, Vancouver, Canada

10:30 The gut microbiota and childhood undernutrition: looking at human development from a microbial perspective. **Jeffrey Gordon**.

11:00 Synthesis of the yeast genome and beyond. **Jef Boeke**.

11:30 Tomorrow's Table: Organic Farming, Genetics and the Future of Food. **Pamela Ronald**.

12:00 CRISPR-Cas Genome Engineering: Biology, Technology and Ethics. **Jennifer Doudna**. (Pre-recorded talk)

Poster Sessions

All posters and exhibits will be in the Cypress Ballroom. The Hall will be open to conference registrants on a 24 hour basis beginning at 5:00 pm, Wednesday, July 13 until 12:00 noon, Saturday, July 16. Security will be posted at the entrance to the Hall and only individuals with the official TAGC registration badge will be admitted.

Authors are expected to present at their boards according to the following schedule:

Thursday, July 14	1:30 pm – 2:30 pm	Even-numbered posters
	2:30 pm – 3:30 pm	Odd-numbered posters
Friday, July 15	1:30 pm – 2:10 pm	“A” posters
	2:10 pm – 2:50 pm	“B” posters
	2:50 pm – 3:30 pm	“C” posters
Saturday, July 16	10:00 am – 11:00 am	Odd-numbered posters
	11:00 am – 12:00 pm	Even-numbered posters

Poster presentations have four digit numbers preceded by their community letter and followed by an "A", "B" or "C".

Example:
Y3197A - is for the **Yeast** Genetics Meeting, poster #3197 and in addition to presenting on Thursday and Saturday will present, 1:30 - 2:10 on Friday.

Legend:

W = *C. elegans*
C = Ciliates
D = Drosophila
M = Mouse
P = PEQG
Y = Yeast
Z =Zebrafish

Exhibit representatives will be at their booths during the following hours:

Wednesday, July 13	9:00 pm – 11:00 pm
Thursday, July 14	8:00 am – 4:00 pm
Friday, July 15	8:00 am – 4:30 pm
Saturday, July 16	8:00 am – 12:00 noon

C. elegans DEVELOPMENT, CELL BIOLOGY AND GENE EXPRESSION MEETING

Posters

Meiosis, Germ Line Development, and Sex Determination

W4001A Unearthing Aneuploidy: A Study of the Influence of Double Strand Breaks on Oocytes in *Caenorhabditis elegans*. **Fabiola Balmir**.

W4002B New complexities in ATM/ATR regulation in meiosis. **Wei Li**.

W4003C NuRD Chromatin Remodelers Block Checkpoint Activation in the *C. elegans* Germ Line. **Solomon Sloat**.

W4004A NuRD paralogs CHD-3/LET-418 promote meiotic double-stranded break repair In *C. elegans* . **Carolyn Turcotte**.

W4005B SMRC-1, a putative annealing helicase, links chromatin regulation and DNA repair in the *C. elegans* germ line. **Bing Yang**.

W4006C Sex pheromones of *C. elegans* males potentiate the female reproductive system. **Erin Aprison**.

W4007A Identifying a role for ETR-1 in *C. elegans* reproduction and germ line apoptosis. **Ruby Boateng**.

W4008B Developmental consequences of the inappropriate transgenerational inheritance of histone methylation in *spr-5;met-2* mutant worms. **Brandon Carpenter**.

W4009C SAMP-1 Regulates Chromosome Segregation in *C. elegans* Spermatogenesis. **Alison Deshong**.

W4010A Sex specific differences in *C. elegans* meiosis. **Sara Fielder**.

W4011B Identification of Genes that Regulate the Activation of *C. elegans* Sperm. **Abigail Greer**.

W4012C Maternal diet influences intergenerational phenotypic plasticity affecting progeny size and starvation resistance. **Jon Hibshman**.

W4013A TGFβ and prostaglandin synthesis in *C. elegans*: linking environmental cues to sperm motility function. **Muhan Hu**.

W4014B Characterization and identification of new genes required for sperm activation in *C. elegans*. **Amber Krauchunas**.

W4015C A calcineurin-interacting protein regulates ovulation and male mating in C.elegans. **Sun-Kyung Lee**.

W4016A Identification and Characterization of Genes Essential for *C. Elegans* Sperm Guidance. **Shara Legg**.

W4017B PP1α phosphatase GSP-2 regulates meiotic chromosome segregation during spermatogenesis in *C. elegans*. **Yi-Hsiu Lin**.

W4018C PAM-1, the *C. elegans* ortholog of the puromycin sensitive aminopeptidase, and autophagy pathways genetically collaborate to regulate gametogenesis. **Ashley Munie**.

W4019A Screening of compounds that can dissect the *C. elegans* spermiogenesis pathway. **Hitoshi Nishimura**.

W4020B A role for sperm-gonad signaling in competition for reproductive success. **Gillian Stanfield**.

W4021C Are all hermaphroditic nematodes like *C. elegans*? Lessons from *Rhabditis* hermaphroditic nematodes that produce sperm and oocytes simultaneously. **Xiaoxue Lin.**

W4022A Characterization of the germline stem cell niche in *C. elegans* males. **Sarah Crittenden**.

W4023B Molecular and genetic analysis of the *ego-3* gene reveals a critical role for HSP90 in GLP-1/Notch signaling in the *C. elegans* germline. **James Lissemore**.

W4024C Investigating the remodeling of *C. elegans* primordial germ cells into germline stem cells. **Chelsea Maniscalco**.

W4025A Regulation of germline stem cell maintenance by S6-Kinase in *C. elegans*. **Debasmita Roy**.

W4026B GLD-1, FOG-2, and the Emergence of Self-fertility in *C. elegans*. **Eric Haag**.

W4027C Novel regulation of *C. briggsae* spermatogenesis. **Katharine Pelletier**.

W4028A TGFß and insulin-like signaling mediate the feeding state-dependent expression of the food chemoreceptor ODR-10 in *C. elegans* males. **Emily Wexler**.

W4029B PUP-1/CDE-1 and PUP-2 poly(U) polymerases function redundantly in germline development in *C. elegans*. **Yini Li**.

W4030C Analysis of germ cell proliferation and germline histone dynamics in *C.elegans*. **Simona Rosu**.

W4031A Epigenetic Contributions to Homolog Recognition in Meiosis. **Christine Doronio**.

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W4032B Cortical microtubule dynamics in *C. elegans* oocytes. **Chien-Hui Chuang**.

W4033C Investigating Oocyte Meiotic Spindle Assembly and Bipolarity in *C. elegans*. **Aleesa Schlientz**.

W4034A Analysis of DLC-1 mediated regulation of the tumor suppressor protein GLD-1. **Ekaterina Voronina**.

W4035B Ubiquitin Conjugating Enzymes required for Ubiquitination of Paternal Organelles during post fertilization events. **Paola Molina**.

Cell Cycle, Cell Division, Cytokinesis

W4036C Elucidating the Role of Securin in Regulating Separase during Cortical Granule Exocytosis. **Christopher Turpin**.

W4037A The Protease Activity of Separase Is Required for Both Chromosome Segregation and Membrane Trafficking During Anaphase. **Xiaofei Bai**.

W4038B A Potential Role for Midbodies in Developing Tissues of *C. elegans*. **Joshua Bembenek**.

W4039C TPXL-1 mediates aster-based clearing of contractile ring proteins from the cell poles during cytokinesis. **Esther Zanin**.

W4040A *t3421,* a novel mutation required for bipolar spindle assembly in the one-cell stage *C. elegans* embryo. **Tamara Mikeladze-Dvali**.

W4041B Polo-like kinase 1 is required for nuclear envelope breakdown and parental chromosome mixing during Caenorhabditis elegans early embryonic divisions. **Mohammad Rahman**.

W4042C Microtubule glutamylation is dispensable for *C. elegans* viability. **Katherine Badecker**.

W4043A The Power of One: A single wild type chromosome pair promotes chromosome partition in the first spermatocyte division of meiotic mutants. **Katherine Rivera Gomez**.

Cell Polarity, and Cell Fate

W4044B Asymmetric positioning of organelles during epithelial cell polarization. **James Brandt**.

W4045C SLO BK K^+ channels couple gap junctions to inhibition of Ca^{2+} signaling in olfactory neuron diversification. **Amel Alqadah**.

W4046A Identifying factors that interact with PAX-3, a Paired-box protein involved in hypodermal cell fate specification in *C. elegans*. **Margarita Correa-Mendez**

W4047B Forward genetic screens for TLD mutants with defective localization of the TIR-1 Ca^{2+} signaling scaffold protein in left-right neuronal asymmetry. **Yi-Wen Hsieh**.

W4048C Investigation into the Regulatory Dynamics of LIN-1 and LIN-31, Transcription Factors Involved in *C. elegans* Cell Fate Specification. **Robert Kousnetsov**.

W4049A The histone chaperone RBA-1 is critical for *C. elegans* postembryonic mesoderm development. **Jun Liu**.

W4050B SWI/SNF chromatin remodeling complexes interact with *hnd-1* and *let-381* to regulate the SGP/hmc cell fate decision. **Laura Mathies**.

W4051C Genetic Control of the Maintenance of the AIA Cell Fate. **Joshua Saul**.

W4052A Dissecting the roles of the zinc finger transcription factor SEM-4/SALL in distinct cell fate specification programs in the *C. elegans* postembryonic mesoderm. **Qinfang Shen**.

W4053B Identification of a novel Ral signal transduction cascade in *C. elegans* 2˚ vulval fate patterning. **Hanna Shin**.

W4054C BAR-1 and CCAR-1 cooperate to properly position a subset of motor neurons along the AP axis. **Jeffrey Hung**.

W4055A Centrosome-cortical contact duration affects anterior-posterior polarity in the one-cell *C. elegans* embryo. **Dominique Saturno**.

W4056B Suppressor screening to identify new regulators of anterior-posterior axis establishment in *Caenorhabditis elegans*. **Emily Schleicher**.

W4057C Development of Quantitative Imaging Toolkit to Monitor the Process of Symmetry Breaking. **Peng Zhao**.

W4058A Developmental and cancer cell invasion share regulatory pathway components. **Evelyn Lattmann**.

W4059B A promoter element in the *C. elegans nhr-67 tailless* gene mediates *hlh-2/daughterless* regulation of anchor cell differentiation and uterine organogenesis. **Caroline Berman**.

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W4060C The *fax-1* nuclear receptor of *C. elegans* functions in gonad development. **Sydney Saltzman**.

W4061A The role of sumoylation in cell invasion. **Aleksandra Fergin**.

Aging and Cell Death

W4062B Study of antipsychotics-induced side effects in *C. elegans*. **Maria Carretero**.

W4063C Arecoline improves age-dependent motor functional decline and extends lifespan by activating GAR-2 receptor in motor neuron in *C. elegans*. **Yen-Chieh Chen**.

W4064A S-adenosylmethionine synthetase-5, SAMS-5, in the regulation of longevity in *C. elegans*. **Tsui-Ting Ching**.

W4065B Investigating the role of intestinal cell-to-cell communication in longevity in *C. elegans*. **Calista Diehl**.

W4066C Bacillus subtilis and Caenorhabditis elegans are good friends. **Veronica Donato**.

W4067A Elucidating drivers of proteostasis decline by targeting age-related accumulation of insoluble protein. **Kathleen Dumas**.

W4068B Investigation of medicinal and therapeutic effects of boronic acid compounds in an Alzheimer's Disease model of *Caenorhabditis elegans*. **Denise Flaherty**.

W4069C Neuronal HSF-1 cell non-autonomously regulates intestinal DAF-16 functions and longevity in *C. elegans.* **JiYuen Kim**.

W4070A The Spinal Muscular Atrophy Network (SMA) Regulates Insulin Signaling in Response to High-Glucose Diet in *C. elegans*. **Maegan Neilson**.

W4071B PROtein FEeding in CElegans (PROFECE) a new method to study gut-microbiota interaction during neuro/muscular development. **Frederic Pio**.

W4072C The role of Ca^{2+} permeability and Na^{+} conductance in cellular toxicity caused by hyperactive DEG/ENaC channels. **Cristina Matthewman**.

W4073A Knock-out of *C. elegans* sirtuin *sir-2.3* protects neurons from death. **Rachele Sangaletti**.

W4074B The effect of sesame lignans on amyloid-beta toxicity in *Caenorhabditis elegans* model of Alzheimer's disease. **Roongpetch Keowkase**.

W4075C Nematode disease model of Niemann-Pick C yields pharmacological bypass suppressors. **Ethan Perlstein**.

W4076A Characterizing the role of *swip-10* in the glutamatergic regulation of *C. elegans* dopamine neuron morphology. **Chelsea Snarrenberg**.

W4077B Functional analysis of VPS41-mediated protection from β-Amyloid cytotoxicity. **Edward Griffin**.

W4078C Sexually antagonistic male signals manipulate germline and soma of *C. elegans* hermaphrodites. **Ilya Ruvinsky**.

W4079A Characterization of a CRISPR/Cas9 Mediated *C. elegans* HSF-1 Model Reveals a Complex Oxidative Response and Novel Oocyte Expression. **Andrew Deonarine**.

W4080B Identifying Intrinsic Modulators of Neuronal Resilience in the *C. elegans* Dopaminergic System. **Anthony Gaeta**.

W4081C Investigating DNA damage response pathways after exposure to various heavy metals in *C. elegans*. **Julie Hall**.

W4082A Functional regulation of the DAF-16 by CBP-1-dependent acetylation in response to multiple stressors. **Ao-Lin Hsu**.

W4083B Environmental stresses induce transgenerationally inheritable survival advantages via germline-to-soma communications. **Saya Kishimoto**.

W4084C The *C. elegans* mitochondrial unfolded response induces dopaminergic neurodegeneration under prolonged cell-autonomous over-activation. **Bryan Martinez**.

W4085A Chromatin remodeling proteins influence the Heat Shock Response in *Caenorhabditis elegans*. **Mark Noble**.

W4086B Determining the Role of DBL-1 TGF-β Signaling in the Response to Potential Therapeutic Compounds in the *C. elegans* Model System. **Geethanjali Ravindranathan**.

W4087C Interaction of telomerase deficiency with stress response pathways. **Maya Spichal**.

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Cell Patterning and Morphogenesis

W4088A In vivo mechanisms of epithelial junction formation. **Jose Montoyo-Rosario**.

W4089B Non-autonomous roles of posterior *Hox* genes and SPON-1/F-Spondin in Q descendant migration. **Matthew Josephson**.

W4090C Analyzing phosphorylation of LIN-31, a transcription factor involved in *C. elegans* cell fate specification. **Hannah Kortbawi**.

W4091A *C. elegans* immunoglobulin superfamily members, *syg-2* and *syg-1*, genetically interact with *mig-5/dishevelled* to control anteroposterior neurite growth of GABAergic motor neurons. **Dana Tucker**.

W4092B A RhoGAP responds to axonal guidance signals to regulate actin nucleation during *C. elegans* morphogenesis. **Andre Wallace**.

W4093C Using *C. elegans* PVD Neurons to Functionally Validate Neuropsychiatric Risk Genes. **Cristina Aguirre-Chen**.

W4094A Impact of endocrine signaling on dendrite morphology during development. **Claire Richardson**.

W4095B Genetic suppression of basement membrane defects by altered function of the Myotactin/LET-805 receptor. **Jennifer Gotenstein**.

W4096C A regulatory genetic network in *C. elegans* embryos contributes to epidermal structural integrity during development. **Melissa Kelley**.

W4097A Axon guidance of the posterior lateral microtubule in *C. elegans* through VAB-1 activation by EFN-1. **Evelyn Popiel**.

W4098B Neurons and glia cooperate in assembly of the embryonic *C. elegans* nerve ring. **Georgia Rapti**.

W4099C Novel reinforcement of Ras signaling by Rap1 in *C. elegans* vulval patterning. **Neal Rasmussen**.

W4100A Mechanosensing during *C. elegans* embryogenesis: Hunting for a putative mechanosensor. **Shashi Kumar Suman**.

W4101B A Genetic Screen for Temperature-Sensitive, Morphogenesis Defective Mutants in *C. elegans*. **Molly Jud**.

W4102C Male Specific Neurogenesis Depends on the Sexual State of the Seam in *C. elegans*. **Noah Reger**.

W4103A Scaffolding Cells and Associated Molecular Factors in *C. elegans* Nerve Ring Development. **Kris Barnes**.

W4104B Dissecting *paired-box* and *odd-skipped* transcriptional networks. **Amy Groth**.

W4105C The Transcription Factors LIN-31 and LIN-1 Play a Role in C. elegans Vulval Morphorgenesis. **Leilani Miller**.

W4106A Protein phosphatase 2A is crucial for muscle organization in *C. elegans*. **Hiroshi Qadota**.

W4107B CRISPR/CAS-9 mediated engineering of the *lin-3 egf* locus enables the analysis of tissue-specific functions. **Silvan Spiri**.

W4108C Unearthing the cues to tissue identity within the gonadal sheath. **Laura Vallier**.

W4109A RNAi-based screens identify tube morephogenesis genes in the *C. elegans* spermatheca. **Md. Asaduzzaman Khan**.

Genomics, Gene Regulation and Technology

W4110B Developing an assay for high throughput detection of dauer larvae in *C. elegans*. **Maxwell Colonna**.

W4111C A developmental map of accessible chromatin in *C. elegans*. **YAN DONG**.

W4112A CEC-4 reads histone H3K9 methylation to promote heterochromatin organization. **Jennifer Harr**.

W4113B In search of *C. elegans* histone H3 lysine 27 methylation (H3K27me) 'readers'. **Arneet Saltzman**.

W4114C TGF-β signaling promotes competence for sleep in *C. elegans*. **Desiree Goetting**.

W4115A Optogenetics of gene regulation in *C. elegans*. **Arielle Lam**.

W4116B Modeling Craniofacial Diseases in *C. elegans*. **Aditi Chandra**.

W4117C Genome engineering with the CRISPR/Cas9 system in *C. elegans*. **Daniel Dickinson**.

W4118A Recombineering in C. elegans: genome editing using in vivo assembly of linear DNAs. **Alexandre Paix**.

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W4119B Digital resources for high-throughput analysis of 3D spatial and temporal cell division dynamics in early embryos. **Koji Kyoda**.

W4120C SSBD: an open database of quantitative data and microscopy images of biological dynamics. **Yukako Tohsato**.

W4121A Unused program number

W4122B Calcium imaging of a dopamine-regulated chemosensory circuit in *Caenorhabditis elegans*. **Cory Kunkel**.

W4123C Differential Gene Expression within a Single Sex-Specific Class of *Caenorhabditis elegans* Neurons. **Douglas Reilly**.

W4124A High throughput chemical genomics in *C. elegans* to screen for novel bioactives and their targets. **Hala Zahreddine Fahs**.

W4125B Ribosomal DNA copy number as an unexplored potential source of heritable phenotypic variation. **Elizabeth Morton**.

W4126C Textpresso: mining full text for efficiently obtaining information from the biological literature. **Paul Sternberg**.

W4127A Metablomics meets genomics in *Pristionchus pacificus*: A highly specific esterase is involved in the synthesis of dauer inducing small molecules. **Jan Meyer**.

W4128B *Caenorhabditis* sp. 34 is a sister species to *C. elegans* with marked differences in morphology and ecology. **Asako Sugimoto**.

W4129C Large-scale genetic interaction maps for *C. elegans* embryonic development. **Patricia Cipriani**.

W4130A Truncation of the RUNX transcription factor RNT-1 disrupts dopaminergic signaling in *Caenorhabditis elegans*. **Sarah Robinson**.

W4131B Genome-wide mapping in *C. elegans* using a bulk segregant approach. **Eyal Ben-David**.

W4132C Rational design of protein coding sequences that evade piRNA-mediated germline silencing. **Daniel Dickinson**.

W4133A High-resolution microfluidic imaging platform for high-throughput drug discovery using *C. elegans* disease model. **Sudip Mondal**.

W4134B Pilot study to map the *Caenorhabditis elegans* metabolome to its genome. **Tyler Carter**.

W4135C Development of systems biology in *Caenorhabditis elegans*. **Arthur Edison**.

W4136A Metabolomics of developmental stages of *Caenorhabditis elegans* using mixed populations. **Francesca Ponce**.

W4137B The EAT-2 and GAR-3 acetylcholine receptors have distinct effects on pharyngeal muscle peristalsis. **Alena Kozlova**.

W4138C Identification of genetic variation in *Caenorhabditis elegans* bleomycin sensitivity. **Shannon Brady**.

W4139A Genetic and molecular tools for *Caenorhabditis sp*. 34, a sister species of *C. elegans* with a larger body size. **Kenji Tsuyama**.

W4140B Neurologic and Genetic Analysis of *Ginkgo biloba* Extract Effects in *Caenorhabditis elegans*. **Heather Cathcart**.

W4141C Evaluation of single-cell RNA sequencing measurements for use in developmental lineage reconstruction. **Hannah Dueck**.

W4142A Chromsosomal context influences X chromosome targeting by the *C. elegans* Dosage Compensation Complex. **Sarah Albritton**.

W4143B Identification of *lin-35* (Rb) suppressors. **Cynthia Becker**.

W4144C Mutagenesis of GATA motifs controlling the endoderm regulator *elt-2* reveals distinct dominant and secondary *cis*-regulatory elements. **Lawrence Du**.

W4145A Direct and positive regulation of *bed-3* by BLMP-1 in *C. elegans*. **Hei Tung Fong**.

W4146B Cellular proteomes drive tissue-specific regulation of the heat shock response. **Eric Guisbert**.

W4147C A sexually dimorphic transcriptional switch integrates information about microbial environment and nutritional state to regulate exploratory behavior of *C. elegans*. **Zoe Hilbert**.

W4148A Dynamic trans-splicing in *C. elegans*. **Marija Jovanovic**.

W4149B Hox proteins generate neuronal diversity by regulating the transcriptional output of a single terminal selector gene. **Paschalis Kratsios**.

W4150C X-box promoter motif searches: from *C. elegans* to humans to novel candidate ciliopathies. **Gilbert Lauter**.

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W4151A *Caenorhabditis elegans* BMP Transcriptional Program Implicates Collagen Remodeling in Body Size Regulation. **Uday Madaan**.

W4152B Activation and Repression of Target Gene Expression in Neurons by the *C. elegans* RFX Transcription Factor, DAF-19. **Katherine Mueller**.

W4153C Regulation of anterior lineage genes in *C. elegans* embryogenesis. **Jonathan Rumley**.

W4154A Transcriptomic Analysis of *C. elegans* transgenic animals overexpressing human alpha-synuclein (A53T): Comparison to genes regulated in human Parkinson's Disease brain tissues. **Chenyin Wang**.

RNAi, microRNAs, and Developmental Timing

W4155B Overlapping microRNA networks during nematode development. **Aurora Kerscher**.

W4156C Identification of microRNAs that regulate ovulation in *C. elegans*. **Katherine Maniates**.

W4157A Investigating the role of KIN-20 in microRNA biogenesis, LIN-42 regulation and developmental timing. **Christiane Olivero**.

W4158B A conserved yet uncharacterized RNA binding protein modulates microRNA activity during *C. elegans* development. **Anna Zinovyeva**.

W4159C Using *C. elegans* cuticle collagen genes to dissect temporal regulation of gene expression during development. **Patricia Abete Luzi**.

W4160A Role of nuclear Argonaute proteins in the inheritance of acquired stress resistance in *C. elegans*. **Emiko Okabe**.

W4161B The effects of different food types on the reproductive physiology of *C. elegans*. **Shashwat Mishra**.

W4162C Fluorescent beads are a versatile tool for staging *C. elegans* in different life histories. **Liberta Nika**.

W4163A Sex-specific maturation of the *C. elegans* nervous system. **Hannah Steinert**.

W4164B FAX-1 and UNC-42 transcription factors regulate developmental arrest in *C. elegans*. **Bruce Wightman**.

Intracellular Organelles, Trafficking, and the Cytoskeleton

W4165C Dystrophin interactors in worms and flies. **Kevin Edwards**.

W4166A Comparative genomics reveals novel genes associated with sensory cilia. **Brian Piasecki**.

W4167B Coordinating microtubule organization with cell cycle state. **Maria Sallee**.

W4168C Mechanisms of SYS-1/β-catenin centrosomal localization in early embryonic blastomeres. **Josh Thompson**.

W4169A The effects of luteolin on the V-ATPase and the acidification of the FB-MOs in *C.elegans* sperm. **Melissa Henderson**.

W4170B The calponin family member CHDP-1 promotes membrane expansion and interacts with Rac/CED-10 to regulate protrusion formation. **Ying Guan**.

W4171C *Caenorhabditis elegans* extracellular matrix proteins regulate polycystin localization/activity and cilia integrity. **Deanna De Vore**.

W4172A Intermediate filaments EXC-2/IFC-2 and IFA-4 Maintain Tube Structure of the Excretory Canal of the nematode *C. elegans*. **Hikmat Al Hashimi**.

W4173B Genetic Analysis in NimA-Related Kinase Pathways in *C. elegans*. **David Fay**.

W4174C O-GlcNAc cycling and mitochondrial oxygen consumption. **Matthew Mahaffey**.

W4175A Male Chemosensory Pathways that Modulate Sperm Navigation Performance. **Hieu Hoang**.

W4176B Three conserved tetraspanin proteins positively modulate BMP signaling in *C. elegans*. **Zhiyu Liu**.

W4177C AMPK-related kinase UNC-82 has genetic and probable physical interactions with paramyosin. **NaTasha Schiller**.

W4178A A Tale of Two SNPs: Genetic Analysis of the Dopamine Transporter Structure and Function in DAT-1 Coding Variants Derived from the *C. elegans* Million Mutation Project. **Phyllis Freeman**.

W4179B The *Caenorhabditis elegans* excreted-secreted protein fraction is enriched in innate immunity related proteins. **Patricia Berninsone**.

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W4180C Investigating the function of intestinal cell-cell communication in peptide secretion. **Lisa Learman**.

W4181A Understanding the secretion mechanism of VAPB/ALS8 MSP. **Hala Zein-Sabatto**.

W4182B Identification of Conserved MEL-28/ELYS Domains with Essential Roles in Nuclear Assembly and Chromosome Segregation. **Peter Askjaer**.

W4183C LIN-10 promotes LET-23 EGFR signalling independently of LIN-2 and LIN-7. **Kimberley Gauthier**.

W4184A Miro and dynein localize mitochondria in the intestine. **Takao Inoue**.

W4185B The liprin protein SYD-2 regulates synaptic vesicle localization in *C. elegans*. **Xia Li**.

W4186C In vivo function of the Kinesin-3 motor, KLP-4. **Jay Pieczynski**.

W4187A A Search for Novel Presynaptic Determinants of Dopamine Signaling in *C. elegans*. **Osama Refai**.

W4188B A *C. elegans* model for Human Antigen R. **Zhe Yang**.

W4189C A vesicle-intrinsically regulated pathway for apical polarity. **Nan Zhang**.

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2016 CILIATE MOLECULAR BIOLOGY MEETING

Posters

Ciliate Genomics: Genome Structure and Organization

C7001A Evolution of gene families in ciliates. **Olivia Pilling**.

C7002B Mapping and characterization of DNA replication origins in *Tetrahymena thermophila*. **Linying Zhang**.

Programmed DNA Rearrangement

C7003C Investigations into the Paramecium iesRNA pathway. **Sarah Allen**.

C7004A Multiple Layers of Nested Genes in the Complex Genome of *O. trifallax*. **Jasper Braun**.

C7005B Environmental temperature and its impact on the process of programmed DNA elimination in *Paramecium*. **Francesco Catania**.

C7006C Complex Rearrangements in the Highly Scrambled Genome of O. trifallax. **Lukas Nabergall**.

Chromatin Structure and Chromatin Modification

C7007A Identification and Characterization of the SIRT4/5 Homologs in *Tetrahymena thermophila*. **Emily Nischwitz**.

RNA Metabolism and Non-Coding RNAs

C7008B A nuclear RNAi-dependent *Polycomb* repression pathway is required for transcriptional silencing of transposable elements. **Lifang Feng**.

C7009C Regulation of *Tetrahymena* germline transcription in meiotic prophase by three novel proteins. **Miao Tian**.

Genome Stability and Dynamics

C7010A Cas9 localization in the binucleated ciliate *Tetrahymena thermophila*. **Kelsey Fryer**.

C7011B Epigenetic control of DNA replication revealed in *Tetrahymena thermophila* TXR1 knockout mutants. **Miguel Gonzales**.

C7012C *Gene expression in Paramecium as a response to DNA damage*. **Rainey Stewart**.

C7013A Identification and Investigation of the Function of Rad23 in DNA Repair and Proteosomal Degradation in *Tetrahymena thermophila*. **Evan Wilson**.

Evolution and Population Biology

C7014B The investigation of *Caedibacter taeniospiralis* Reb-related genetic elements in paramecia using fluorescent and phylogentic methodologies. **David Johnson**.

C7015C On the evolution of a family of cis-acting elements for programmed somatic chromosome fragmentation. **Eduardo Orias**.

C7016A Hemp seed extract enhances excystation and survival across genetically diverse ciliates. **Sujal Phadke**.

C7017B Phylogenetic framework of the systematically confused *Anteholosticha-Holosticha* complex (Ciliophora, Hypotricha) based on multigene analysis. **Xiaolu Zhao**.

Cell Biology, Morphogenesis, and Development

C7018C Genetic analysis of the molecular properties underlying centriole stability. **Nicole DeVaul**.

Cell Motility: Cilia, Basal Bodies, and Tubulin

C7019A Characterization of the Striated Rootlet Proteins of the *Paramecium* Basal Body. **Ashikun Nabi**.

C7020B A NIMA-related kinase CNK4 regulates ciliary stability and length. **Junmin Pan**.

C7021C Plasma Membrane Calcium ATPase Regulates Ciliary Calcium in *Paramecium tetraurelia*. **Junji Yano**.

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Ciliate Signaling Systems: Signal Transduction, Protein Secretion, and Trafficking

C7022A Depletion of SUMO-conjugating enzyme Ubc9p causes nuclear defects during the vegetative and sexual life cycles of *Tetrahymena thermophila*. . **James Forney**.

C7023B Proteinases and phagocytosis in *Tetrahymena thermophila*. **J. Straus**.

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57TH ANNUAL DROSOPHILA RESEARCH CONFERENCE

Posters

Cell Biology & Cytoskeleton

D1001A Quantitative analysis of myosin-driven apical constriction in delaminating neuroblasts. **Yanru An.**

D1002B An acentrosomal perinuclear microtubule-organizing center in *Drosophila* fat body cells maintains cell shape and organelle positioning. **Rebecca Buchwalter**.

D1003C A tissue-specific regulation of Myosin II dynamics during tube formation. **Se-Yeon Chung**.

D1004A Characterization of Garz Function during Epithelial Morphogenesis. **Julie Gates**.

D1005B Characterization of a novel actin regulator, HtsRC. **Juli Gerdes**.

D1006C *Drosophila* myosin 7a in Phagocytosis and Eye Development. **Amy Saw-Tin Hong**.

D1007A Zasp52 is a core Z-disc scaffold protein mediating myofibril assembly by dimerizing and binding F-actin. **Kuo-An Liao**.

D1008B Remodeling the actin cytoskeleton by ubiquitin-dependent proteolysis. **Katelynn Mannix**.

D1009C A splice variant of Centrosomin converts mitochondria to MTOCs to facilitate sperm tail elongation in *Drosophila*. **Timothy Megraw**.

D1010A The *Drosophila* Ninein homolog *bsg25D* cooperates with *ensconsin* in myonuclear positioning. **Jonathan Rosen**.

D1011B Regulation of Actomyosin Network by Homophilic Cell Adhesion Molecule Echinoid during Epithelial Morphogenesis. **Rahul Rote**.

D1012C Novel mechanisms of phosphoregulation of Moesin by Clic in *Drosophila* rhabodomere formation. **Soichi Tanda**.

D1013A Investigating patterns of cell interactions during epithelial folding. **Hannah Yevick**.

D1014B Syncytial embryo cleavage through an actomyosin Goldilocks effect set by Rho kinase and myosin phosphatase. **Yixie Zhang**.

D1015C The Role of Retromer-Dependant Recycling in Epithelial Polarity and Morphogenesis. **Kenana Al Kakouni**.

D1016A Investigating the Role of Rab Proteins in Drosophila Photoreceptor Apical Vesicle Trafficking. **Azadeh Laffafian**.

D1017B Cell chirality is a novel and evolutionarily conserved cell polarity that drives left-right asymmetric morphogenesis. **Kenji Matsuno**.

D1018C Tension-dependent junction remodeling repositions polarity proteins and coordinates EMT progression. **Mo Weng**.

D1019A Differential Subcellular Trafficking of Membrane Proteins in Secondary Cells of the *Drosophila* male Accessory Glands. **Felix Castellanos**.

D1020B RPTPs mediate the temporal control of *Drosophila* airway maturation through an interaction with the non-receptor tyrosine kinase Btk29A and its effector WASH. **Vasilios Tsarouhas**.

D1021C Fat2 and Lar define a planar signaling system controlling collective cell migration. **Kari Barlan**.

D1022A Analysis of chiral cellular dynamics in left-right asymmetric rotation of *Drosophila* hindgut. **Mikiko Inaki**.

D1023B Out-of-Step is a novel serine/threonine kinase that directs myotube pathfinding. **Aaron Johnson**.

D1024C Twinstar/cofilin is required for regulation of epithelial integrity and tissue growth in *Drosophila*. **Changmin Ko**.

D1025A Inhibition of Protein Phosphatase 1 activity switches border cells from a collective to single cell mode of migration. **Jocelyn McDonald**.

D1026B The vesicle fusion regulator α-SNAP is required for STAT pathway activation and induction of cell motility. **Afsoon Saadin**.

D1027C *Drosophila* Fondue is a critical extracellular matrix organizer during muscle attachment and coagulation. **Nicole Green**.

D1028A Implication of the basement membrane and adhesion complexes during leg morphogenesis in *Drosophila*. **Ambrosini Arnaud.**

D1029B Investigating the regulation of the imaginal disc epithelial barrier during regeneration. **Danielle DaCrema**.

D1030C Assembly of septate junctions and midbody displacement during epithelial cytokinesis. **Zhimin Wang**.

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D1031A Polo kinase mediates the phosphorylation and cellular localization of Nuf/FIP3, a Rab11 effector. **Lotti Brose**.

D1032B A Genetic Dissection of the *Drosophila* Larval Salivary Gland: A Model for Exocrine Gland Physiology. **Kathryn Lantz**.

D1033C Fascin regulates nuclear actin during *Drosophila* oogenesis. **Daniel Kelpsch**.

Cell Biology & Signal Transduction

D1034A Hedgehog promotes the production and release of PI(4)P to interact and activate Smoothened. **Kai Jiang**.

D1035B Regulation of Smo phosphorylation and high-level Hh signaling activity by a plasma membrane associated kinase. **Shuangxi Li**.

D1036C The PARP enzyme Tankyrase antagonizes activity of the βcatenin destruction complex through ADP-ribosylation of Axin and APC2. **Hyun Hyung An**.

D1037A Proteomic analysis reveals APC-dependent post-translational modifications and identifies a novel regulator of β-catenin. **Malachi Blundon**.

D1038B Activation of Sona requires furin cleavage and autocatalysis. **Sang-soo Lee**.

D1039C The extracellular protease *AdamTS-B* negatively regulates wing vein patterning through BMP signaling. **Afshan Ismat**.

D1040A Interplay of BMP and JAK/STAT in Developmentally Related Apoptosis. **Alexandra Mascaro**.

D1041B The Notch-mediated hyperplasia circuitry in *Drosophila*. **Diana Ho**.

D1042C CG9650: A novel regulator of patterning of the Indirect Flight Muscles of *Drosophila melanogaster*. **Saroj Jawkar**.

D1043A Functional investigation of a late-onset Alzheimer's disease associated variant in TM2D3. **Jose Salazar**.

D1044B The cell-type specific functions of an ER modulating factor, Pecanex in Notch and Wnt signaling pathways. **Tomoko Yamakawa**.

D1045C An in vivo screen for novel small molecule inhibitors of PLCγ. **Chitra Naidu**.

D1046A The COP9 signalosome regulates EGFR signaling by stabilizing Capicua. **Annabelle Suisse**.

D1047B Yki interacts with the JNK pathway to regulate epidermal wound healing in *Drosophila* larvae. **Chang-Ru Tsai**.

D1048C Identification and characterization of novel epidermal growth factor receptor target genes implicated in *Drosophila* development. **Michael Warkala**.

D1049A The Rap Guanine Nucleotide Exchange Factor (GEF) C3G is required for nephrocyte function in *Drosophila melanogaster*. **Cara Picciotto**.

D1050B Piragua, a ZAD and zinc finger transcription factor, genetically interacts with the membrane protein Flower in the embryo. **Juan Riesgo-Escovar**.

D1051C Identification and characterization of Sugar-free frosting/SAD kinase substrates that regulate neural glycosylation in the *Drosophila* embryo. **Sarah Robinson**.

D1052A The UPR Pathway Activates the TOR Signaling through Atf6. **Jin Seo**.

D1053B Characterizing the role of the Fat cadherin family in the mitochondria using CRISPR. **Norman Yau**.

D1054C Transcriptome analysis to identify genes responding to mechanical force in developing *Drosophila* embryos. **Tomoki Ishibashi**.

D1055A Functional characterization of *creld* in *Drosophila melanogaster*. **Marie Paradis**.

D1056B The Tumor Microenvironment and Mechanisms Governing Ras Tumor Overgrowth. **Chiswili Chabu**.

D1057C The "gatekeeper" function of *Drosophila* Seven-IN-Absentia (SINA) E3 ligase and its human homologs, SIAH1 and SIAH2, is highly conserved for proper RAS signal transduction in *Drosophila* eye development. **Robert Van Sciver**.

D1058A Calcium dynamics can be used to reveal mechanisms of epithelial wound detection. **Erica Shannon**.

Cell Cycle & Cell Death

D1059B Involvement of the histone demethylase KDM5 in the control of apoptosis. **Coralie Drelon**.

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D1060C A Role for Histone Deacetylases in Regulating Sensitivity to Apoptotic Stimuli in *Drosophila melanogaster*. **Khailee Marischuk**.

D1061A Argonaute-1 regulates developmental apoptotic process through JNK signaling pathway in *Drosophila*. **Tanmoy Mondal**.

D1062B Signaling mechanisms between apoptotic cells and non-professional phagocytes. **Sandy Serizier**.

D1063C *Drosophila* Wnt and STAT Define Apoptosis-Resistant Epithelial Cells for Tissue Regeneration after Irradiation. **Shilpi Verghese**.

D1064A BAF phosphorylation regulates necrotic pyknosis. **Lin Hou**.

D1065B Signaling and mechanisms regulating Germ Cell Death (GCD), an alternative cell death pathway in *drosophila*. **Keren Yacobi-Sharon**.

D1066C Survival of proliferative, radio-resistant polyploid cells in *Drosophila* requires FANCD2. **Heidi Bretscher**.

D1067A Tousled-like kinase regulates G2/M transition through Tak1 to activate p38a MAPK. **Gwo-Jen Liaw**.

D1068B Rescue from Ring Chromosome Dominant Lethality by Mutations in *lok* (Chk2) and *p53*. **Ho-Chen Lin**.

D1069C DNA replication proteins: two mutations better than one? **Christopher Knuckles**.

D1070A A Y chromosome variant mediates sex ratio of surviving *Blm* null embryos. **Abbie Olson**.

D1071B Aging impairs double-strand break repair by homologous recombination in Drosophila. **Henry Ertl**.

D1072C Determining the role of a novel protein, Ankle1, in a resolvase complex of *Drosophila melanogaster*. **Michaelyn Hartmann**.

D1073A Does remodeling of the Myb-MuvB transcriptome promote the switch from mitotic cycles to endocycles? **Michael Rotelli**.

D1074B Hippo signaling regulates tissue regeneration from a quiescent cell population. **Joy Meserve**.

D1075C miRNA regulation of *dacapo* expression in the *Drosophila* embryo. **James Petley**.

D1076A Modulation of $CRL4^{Cdt2}$ activity in the syncytial embryo. **Julia Speciale**.

D1077B Identifying regulators of meiotic entry in male *Drosophila melanogaster*. **John Tomkiel**.

Cell Division and Growth Control

D1078C Epithelial tricellular junctions act as interphase cell shape sensors to orient mitosis. **Floris Bosveld**.

D1079A A new toolbox for the fly *Sciara* - a new/old model system that disobeys the rules for chromosome movement on spindles. **Susan Gerbi**.

D1080B Cell size regulation in *Drosophila* sensory organ precursor asymmetric cell divisions. **Nitya Ramkumar**.

D1081C Characterizing the Role of Rough Deal (Rod) Protein in *Drosophila* Male Meiosis. **Qiutao He**.

D1082A Cohesion without cohesin in *Drosophila* meiosis. **Avik Mukherjee**.

D1083B The role of the endoplasmic reticulum during asymmetric cell division in *Drosophila melanogaster*. **Sarah Beyeler**.

D1084C To get more for less: Thermodynamic versus active mechanisms of the nucleolus assembly. **Hanieh Falahati**.

D1085A SIRS is a spindle-independent mechanism of chromosome separation in mitotic polytene tissues. **Ben Stormo**.

D1086B ER-associated membrane contribution to cellularization furrows in *D. melanogaster* embryo morphogenesis. **Elliott Holt**.

D1087C A cell cycle-regulated ArfGAP-Arf1 pathway for Golgi organization and cleavage furrow biosynthesis. **Francisco Rodrigues**.

D1088A Anillin and Citron Kinase, Sticky, collaborate during the contractile ring-to-midbody ring transition. **Denise Wernike**.

D1089B Mechanotransduction mechanisms in compensatory cellular hypertrophy. **Kenta Morimoto**.

D1090C A screen using FijiWings reveals the E3 Ubiquitin Ligase Neuralized as a novel Tribbles target. **Anna Shipman**.

D1091A Crosstalk between mitochondrial fusion and the Hippo pathway in controlling cell proliferation during *Drosophila* development. **Qiannan Deng**.

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D1092B Yorkie activates transcription by recruiting the histone deacetylase HDAC1 and promoting histone deacetylation. **Wanzhong Ge**.

D1093C Role of Tctp interaction with a septate junction protein Coracle in imaginal disc development. **Sungryeong Lee**.

D1094A A matter of growth and death: An unexpected output of the Hippo Network in the *D. melanogaster* trachea. **Saoirse McSharry**.

D1095B Kibra and Merlin orchestrates activation of Hippo pathway core kinases cassette independent of Expanded *in vivo*. **Ting Su**.

D1096C Characterization of *rio* (*CG11340*) as a regulator of tissue-specific growth in the larval trachea of *Drosophila*. **Robert Ward**.

D1097A Genetic manipulations of EGF ligands in motor neurons affect myoblast proliferation and muscle patterning in Drosophila. **Darren Wong**.

D1098B Investigating the role of epithelial curvature in growth control. **Lina Zhang.**

D1099C Elucidating the role of various signaling pathways in *lgl* derived tumors in *Drosophila* egg chambers. **Deeptiman Chatterjee**.

D1100A Pointed/ETS acts as a novel tumor suppressor that regulates Ras-mediated cellular senescence. **Takao Ito**.

D1101B Myc regulates cytoophidium formation. **Ji-Long Liu**.

D1102C A distinct tumor suppressor role of Snr1 from the SWI/SNF complex in *Drosophila* imaginal tissues. **Gengqiang Xie**.

D1103A Oncogenic properties of Troponin-I. **Sergio Casas-Tinto**.

D1104B A shared loser molecular signature identifies stress signaling pathways common to loser cells, which play distinct roles in cell competition. **Michael Dinan**.

D1105C Dissecting a common principle underlying cell competition and wound healing. **Chiaki Iida**.

D1106A Functional analysis of the Ribosome protein mutant in cell competition. **Zhejun Ji**.

D1107B RpS12 role in cell competition. **Marianthi Kiparaki**.

D1108C Epithelial Slit-Robo signaling regulates tumor-suppressive cell competition. **John Vaughen**.

D1109A The ligand Sas and its receptor PTP10D drive tumor-suppressive cell competition. **Masatoshi Yamamoto**.

D1110B The subcellular distribution of Tribbles is linked to the regulation of growth and patterning by insulin and BMP signaling pathways. **Leonard Dobens**.

D1111C Prominin-like, a homology of mammalian CD133, regulates body size by affecting dilps and inhibiting TOR pathway in *Drosophila*. **Huimei Zheng**.

D1112A Acinus Links Autophagy and Hippo Signaling. **Lauren Tyra**.

Physiology, Organismal Growth & Aging

D1113B The interaction of social environment with genetic background, expression of Extra-Cellular Superoxide Dismutase and oxidative stress in *Drosophila melanogaster*. **Joel Parker**.

D1114C Hypoxia inhibits insulin signaling and regulates lipid metabolism in *Drosophila melanogaster* larvae through CDK8-dependent inhibition of the Gbb pathway. **zhouyang Shen**.

D1115A Assessing the Role of *Drosophila melanogaster* HP1B Protein in Aging. **Andrew Thomas**.

D1116B *Fs(1)h* is required in fat body for normal lifespan, metabolism, and immune function in *Drosophila*. **Jessica Sharrock**.

D1117C The microbiota affects ADH protein level and influences alcohol sensitivity in *Drosophila*. **Malachi Blundon**.

D1118A A temperature-dependent shift in dietary preference alters the viable temperature range of *Drosophila*. **Marko Brankatschk**.

D1119B A genetic screen for novel neuronal genes regulating lifespan extension in *Drosophila melanogaster*. **Tzu-Yuan Chen**.

D1120C Functional characterization of multiple promoter alleles of the *bellwether* gene in *Drosophila melanogaster*. **Julia Frankenberg Garcia**.

D1121A Endogenous L-2-hydroxyglutarate synthesis coordinates aerobic glycolysis with epigenetic modifications in *Drosophila*. **Alexander Hurlburt**.

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D1122B Hemocytes regulate responses to nutrition via the Jak/STAT pathway. **Katrin Kierdorf**.

D1123C The regulation of lipid storage by sex determination genes in *Drosophila*. **Cezary Mikoluk**.

D1124A Lipolytic effects on insulin signaling in the *Drosophila* larval fat body. **Emily Scott**.

D1125B Studies of the *Drosophila Lactate Dehydrogenase* gene reveal compensatory metabolic networks that support larval development. **Jason Tennessen**.

D1126C The GATOR1 function in *Drosophila* development. **Youheng Wei**.

D1127A The contribution of host genetic variants to microbiota-mediated juvenile growth. **Dali Ma**.

D1128B Genetic mapping and molecular characterization of the genes *lysine* and *red cell*. **Samantha St. Clair**.

D1129C Investigating the role of dietary iron on reactive oxygen species levels in *Drosophila*. **Rebecca Vaders**.

D1130A The *Drosophila* Estrogen-Related Receptor acts as a nutrient sensor to coordinate larval growth with nutrient availability. **Maria Sterrett**.

D1131B *reaper* expression in the wing imaginal disc causes non-autonomous larval growth inhibition. **Cristina D'Ancona**.

D1132C *Drosophila* Adipokinetic hormone regulates food intake, metabolic rate, and expression of neuropeptide genes with metabolic functions. **Martina Gáliková**.

D1133A The Membrane Attack Complex / Perforin-like protein Torso-like regulates *Drosophila* growth and developmental timing. **Michelle Henstridge**.

D1134B Relationship between Heme Biosynthesis and Ecdysone Production during *Drosophila* Larval Development. **Nhan Huynh**.

D1135C Identifying new growth regulatory receptors in *Drosophila melanogaster*. **Melissa Saligari**.

D1136A The influence of the RU486 steroid on *Drosophila* feeding and lifespan. **Erin Keebaugh**.

D1137B Analysis of the effects of acetyl-para-aminophenol on *Drosophila melanogaster* development. **Terry Blaszczak**.

D1138C BLM and WRNexo protect against aging and tumorigenesis in Drosophila. **Elyse Bolterstein**.

D1139A The Interaction of Wolbachia and Oxidative Stress with Genetic Background in *Drosophila Melanogaster*. **Florian Capobianco**.

D1140B Oxidative insult induces clock-dependent, rhythmic expression of stress-related genes in *Drosophila*. **Eileen Chow**.

D1141C The *fluted*^{1} (*fl*^{1}) mutation is a deletion in the CG5873/cysu gene and is required for wing integrity. **Eric Spana**.

D1142A Alternative splicing and isoform expression in the honeybee flight muscles. **Agnes Ayme-Southgate**.

D1143B *Cellular senescence and oxidative stress are aging mechanisms that depend on genetic background*. **Presila Bejo**.

D1144C Epigenetic Regulation of Aging in *Drosophila melanogaster* . **Qichuan Chen**.

D1145A Histone deacetylases affect aging-related muscle fiber loss.. **Erik Gerberich**.

D1146B The Role of Activin Signaling in Drosophila Cardiac Aging. **Ping Kang**.

D1147C Regulation of dense-core granule replenishment by autocrine BMP signalling in *Drosophila* secondary cells. **Siamak Redhai**.

D1148A Male proteins mediate the binding of sex peptide binding to sperm to prolong post-mating responses in *D. melanogaster* females. **Akanksha Singh**.

D1149B Exploring chronic drug delivery regimes for aging studies in *Drosophila*. **Hannah Stratton**.

D1150C Sestrin, a novel target in the mTOR pathway that mediates benefits of exercise. **Alyson Sujkowski**.

D1151A Lateral Abdominal Muscles as a model for studying muscle atrophy in *Drosophila* . **Natasya Tamba**.

D1152B *Mondo*/*dChREBP* functions in the *Drosophila* intestine to regulate nutrient storage. **Niahz Wince**.

D1153C Kruppel homolog 1 represses dFOXO transcriptional activity and lipolysis. **Hua Bai**.

D1154A Transcriptional co-regulation of lipid metabolism by Drosophila dFOXO and Kruppel homolog 1. **Kai Chang**.

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D1155B Loss of *rab27* in the αβ pioneer neurons of the mushroom body extends lifespan by deactivating TOR signaling in *Drosophila*. **Wen-Yu Lien**.

D1156C Activin-Beta/TGF-Beta signaling in skeletal muscle controls insulin signaling, metabolism and final body size. **Lindsay Moss-Taylor**.

D1157A Toll signaling acts through the transcription factor Dif to block DILP-dependent growth in the *Drosophila* fat body. **Nigel Muhammad**.

D1158B Neprilysins control insulin signaling via cleavage of regulatory peptides. **Ronja Schiemann**.

D1159C Localized epigenetic silencing of a damage-activated WNT enhancer limits regeneration in maturing *Drosophila* imaginal discs. **Robin Harris**.

D1160A Establishing a model of BM damage and analyzing its repair. **Angela Howard**.

D1161B Systemic influences of methionine metabolism in fat body for *Drosophila* imaginal disc repair. **Soshiro Kashio**.

D1162C The Loss of Regenerative Potential in the Aging *Drosophila* Germline Stem Cell. **Rebecca Kreipke**.

D1163A Spatiotemporal regulation of cell fusion by JNK and JAK/STAT signaling during *Drosophila* wound healing. **Ji-Hyun Lee**.

D1164B Effects of exercise and heat shock on lifespan and health span of $A\beta_{1-42}$ *Drosophila melanogaster*. **Samhan Alsolami**.

D1165C Characterization of *fried/HEATR2* expression and phenotypes. **Margaret Fisher**.

D1166A The influence of diet and mtDNA genotype on sexual conflict in *Drosophila melanogaster*. **Wen Chyuan Aw**.

D1167B Intestinal microbes shorten the host lifespan through increased intestinal permeability in *Drosophila melanogaster*. **Hye-Yeon Lee**.

D1168C Growing faster or growing too fast? Effects of *Lactobacillus plantarum* on Drosophila fitness. **Mélisandre Téfit**.

D1169A A Molecular Genetic Analysis of the role of Carbonic Anhydrases in Tracheal Development of *Drosophila melanogaster*. **Grace Jean**.

D1170B Jak/Stat functions in reproductive aging. **Michelle Giedt**.

D1171C Unused program number

D1172A Patterns of Transposable Element Expression in Heads during *Drosophila* Aging. **Gregory Reeves**.

Gametogenesis & Organogenesis

D1173B Atypical Paternal Centrioles are Essential for Progeny Embryogenesis. **Tomer Avidor-Reiss**.

D1174C The multifunctional transcription factor Suppressor of Hairy-wing is required in spermatogenesis. **Tingting Duan**.

D1175A Assessment of age-dependent effects on sperm quality and male fertility in *Drosophila melanogaster*. **Heba Elwa**.

D1176B Roles for tissue-specific ATP synthase subunits in mitochondrial shaping and ATP synthase dimerization in *Drosophila*. **Karen Hales**.

D1177C Importin α1 is required for maintaining germline stem cells in *Drosophila melanogaster* testes. **Gary Hime**.

D1178A Functional characterization of a gene family essential for *Drosophila* spermatogenesis. **Benjamin Nicholson**.

D1179B Analyzing the role of the *aghino* gene in protein and vesicular trafficking during acrosome biogenesis in *Drosophila melanogaster*. **Irene Paz**.

D1180C Functional consequences of a selfish X-chromosome in *Drosophila neotestacea*. **Kathleen Pieper**.

D1181A 3'UTR regulation may be involved in germ cell differentiation in *Drosophila*. **Lingjuan Shan**.

D1182B Which parent is damaged? Can Progeny show consequences? **Estefania Arroyo**.

D1183C Spargel/dPGC-1 is involved in Insulin-TOR signaling, nutrient sensing and Oogenesis. **Mohammad Basar**.

D1184A Characterizing highly conserved genes of unknown function in the *Drosophila* female germline. **Varsha Bhargava**.

D1185B Proteomic analysis of CTP synthase filaments in *Drosophila*. **Archan Chakraborty**.

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D1186C Polar cells are required for formation of a functional micropyle. **Michelle Giedt**.

D1187A Analysis of CASK gene expression and function in *Drosophila* oogenesis. **Taylor Hoffman**.

D1188B The relationship between egg size and terminal filaments in *Drosophila melanogaster* lines selected for divergent egg size. **Deeksha Mohan**.

D1189C Germline regulation of *Sex lethal* in *Drosophila melanogaster*. **Raghav Goyal**.

D1190A The novel Tudor-domain protein TDRD5P regulates male germline sexual identity. **Caitlin Pozmanter**.

D1191B Male-specific development of the gonad stem cell niche regulated by *doublesex* and *fruitless*. **Hong Zhou**.

D1192C Unassigned number.

D1193A Identification and Characterization of Novel Genes in the *Drosophila* Heart. **TyAnna Lovato**.

D1194B Altering expression of JAK/STAT pathway components in air sac primordia of *Drosophila melanogaster*. **Nathan Powers**.

D1195C *GATAe* regulates intestinal stem cell maintenance and differentiation in *Drosophila* adult midgut. **Takashi Adachi-Yamada**.

D1196A A functional genomics approach to identify targets of Forkhead domain transcription factors involved in cardiogenesis. **Shaad Ahmad**.

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D1435C Parthenogenomics: Assembly, annotation, and analysis of the facultative parthenogenetic fruit fly, *Drosophila mercatorum*. **Craig Stanley**.

D1436A Partial loss of function in the *Drosophila melanogaster* septin gene *Sep5*. **Ryan O'Neill**.

D1437B The effects of insulin signaling on sexually dimorphic gene expression in head tissues. **Tiffany Howard**.

D1438C How do polymorphic Y-chromosomes modulate genome-wide epigenetic states: analyses of a whole Y-chromosome dosage series. **Bernardo Lemos**.

Pattern Formation

D1439A A Facilitated Diffusion Mechanism Establishes the Drosophila Dorsal Gradient. **Gregory Reeves**.

D1440B Pax6 and the Polycomb group proteins promote eye formation by repressing alternate non-ocular fates. **Jinjin Zhu**.

D1441C SoxNeuro and Shavenbaby act cooperatively to shape denticles in the embryonic epidermis. **Nicholas Rizzo**.

D1442A *eyeless* Participates in the Establishment and Maintenance of the Retinal Dorsal/Ventral Axis. **Luke Baker**.

D1443B Role of axial patterning genes in growth regulation during eye development. **Neha Gogia**.

D1444C Defining the role of Glass, a zinc finger transcription factor, in eye development. **Carolyn Morrison**.

D1445A Zinc finger transcription factors, Teashirt and Tiptop: Their role in promoting early eye-antennal disc development and maintaining segregated eye-antennal fates. **Sneha Palliyil**.

D1446B Cytoneme-mediated cellular synapsis for Hh signaling. **Laura Gonzalez-Mendez**.

D1447C Steep difference in Dpp signaling triggers JNK-dependent transcriptional activation of *reaper*. **Hisashi Nojima**.

D1448A Trithorax Group proteins interact with Pax6 to specify proper organ number in the *Drosophila* eye-antennal disc. **Alison Ordway**.

D1449B Computational analysis of spatiotemporally-patterned intercellular Ca^{2+} transients in the *Drosophila* wing imaginal disc. **Pavel Brodskiy**.

D1450C Rab11, a multi talented determinant of morphogenesis in *Drosophila*. **Jagat Roy**.

D1451A *Macroglobulin complement-related* is required for border cell migration and proper egg shape during *Drosophila melanogaster* oogenesis. **Haifa Alhadyian**.

Regulation of Gene Expression

D1452B Unstable enhancer activity during early development of Drosophila. **Sergio Casas-Tinto**.

D1453C The *Drosophila melanogaster tfiia-s-2* gene encodes a male germline-expressed homolog of the small subunit of the TFIIA general transcription factor. **Mark Hiller**.

D1454A Identification of transcriptional regulators and enhancer regions of the *Alk* locus in *Drosophila*. **Patricia Mendoza-Garcia**.

D1455B Myb and Mip120: an oncogenic dyad that causes tumorigenesis in *Drosophila* 3rd instar larvae. **Paul Vorster**.

D1456C Novel function of the class I bHLH protein Daughterless in postmitotic neurons. **Edward Waddell**.

D1457A Germline silencing of pUASt depends on the piRNA pathway. **Yi-Chun Huang**.

D1458B Transcriptome profile of abnormal testis reveals potential function for ceramidase in *drosophila melanogaster*. **Minjing Zhang**.

D1459C In vitro characterization of Zelda zinc fingers – discovery of a new DNA binding activity. **Nikolai Kirov**.

D1460A The circadian clock orchestrates *de novo* rhythmic expression of oxidative stress-response genes in aging *Drosophila*. **Rachael Kuintzle**.

D1461B Two temporal functions of Glass: ommatidium pattarning and photoreceptor differentiation. **Xulong Liang**.

D1462C Transcriptional regulation by Drosophila Suppressor of Hairy-wing: Investigating contributions of a newly discovered interacting protein HIPP1. **Steve Glenn**.

D1463A Split-ends is required for Ecdysone production during Larva development. **Sattar Soltani**.

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D1464B Whole genome analysis of the transcriptional corepressor, Atrophin, reveals interactions with Trithorax-like and regulation of Dpp and Notch signaling. **Kelvin Yeung**.

D1465C Characterization of a *grainyhead* neuroblast enhancer. **Thomas Brody**.

D1466A Fiber-specific Troponin C isoform switching in Drosophila thoracic muscles. **Maria Chechenova**.

D1467B The activity of the *en* imaginal disc enhancers is dependent on chromatin structure. **Yuzhong Cheng**.

D1468C Concentration Dependent Activity of the Bicoid Transcriptional Activator. **Colleen Hannon**.

D1469A Expression of reciprocal antagonists Mirr and Mid is regulated by localized input from EGFR, JAK/STAT, and Dpp signaling pathways. **Scott De Vito**.

D1470B Methionine Sulfoxide Reductase expression in response to anoxic stress conditions in *D. melanogaster*. **Evgeniya Rakitina**.

D1471C CLAMP: Sex Specific or Global Transcription Factor. **William Jordan**.

D1472A An integrated causality-based regulatory network for *Drosophila* S2 cells. **Hangnoh Lee**.

D1473B Competitive binding of transcription factors drives dominance in regulatory genetic pathways. **Adam Porter**.

D1474C Patterns of gene expression variation in a natural population of *Drosophila melanogaster* provide evidence for GRN robustness through compensatory *cis trans* interactions. **Justin Fear**.

D1475A A novel Smad/Su(H)-target enhancer drives *hedgehog* expression in a signaling hole of the posterior wing disc compartment. **Timothy Fuqua**.

D1476B Strong interactions between copies of *spineless* drive interchromosomal communication independent of homologous chromosome pairing. **Kayla Viets**.

D1477C The developmental effects of germline ablation contribute more strongly to somatic gene expression than the maternal effects of piRNA. **Alexandra Erwin**.

D1478A Development and optimization of light-dependent switches for spatiotemporal control of gene expression. **Lorena De Mena**.

D1479B Investigating Effects of TDP-43 on Metabolic Gene Expression in a Drosophila model of Amyotrophic Lateral Sclerosis. **Jordan Barrows**.

Chromatin & Epigenetics

D1480C Sex chromosome-wide transcriptional suppression and compensatory *cis*-regulatory evolution mediate gene expression in the *Drosophila* male germline. **Emily Landeen**.

D1481A The insect specific Drosophila gene *banshee* (*bshe*; *CG8878*), a putative protein kinase, has an acid-rich region inserted within the catalytic domain. **John Locke**.

D1482B Investigations into the action of the CHD1 remodeler on chromatin across a transcriptionally active gene in larval salivary glands. **Jennifer Armstrong**.

D1483C Determining how chromatin structure impacts DNA replication and cell cycle progression. **Robin Armstrong**.

D1484A Characterizing the role of HP1 proteins in aging. **Tandy Dolin Petrov**.

D1485B An RNA Topoisomerase Complex Interacts with RNAi Machinery to Promote Heterochromatin Formation and Transcriptional Gene-Silencing. **Seung Kyu Lee**.

D1486C Comparative Genomics Analysis of *Drosophila ficusphila* heterochromatic chromosome 4 contig 5. **David Schiller**.

D1487A Investigating the molecular basis of dominant male sterility associated with X-autosome translocations in *D. melanogaster* using RNA-seq and cytological analyses. **Jasmine Wong**.

D1488B Rapidly Evolving Stonewall maintains Germline Stem Cells and regulates Transposons. **Daniel Zinshteyn**.

D1489C Characterization of essential domains in the BEAF-32B insulator protein. **Satya Prakash Avva**.

D1490A Boundary elements-anchored chromatin loops may facilitate genome rearrangement. **Zhibo Ma**.

D1491B Characterization of the SCS' insulator. **Mukesh Maharjan**.

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D1492C The *Dm*-Myb oncoprotein coordinates higher-order chromatin structure to potentiate expression of target genes as well as stabilize facultative heterochromatin. **Juan Santana**.

D1493A Don't Steer Me Wrong: Rustling for Connections Between BEAF Insulator Protein, PBAP Chromatin Remodeler and Gene Expression. **Jamie Wood**.

D1494B Analysis of *Sex combs reduced* HOX gene cis-regulatory elements. **Monica Cooper**.

D1495C Maintenance of tissue pluripotency by epigenetic factors. **Der-Hwa Huang**.

D1496A A genetic screen for Polycomb group mutants. **James Kennison**.

D1497B The chromatin remodeling protein Kismet regulates synaptic pruning by controlling steroid hormone receptor expression. **Nina Latcheva**.

D1498C The recognition of target gene transcriptional state by epigenetic regulators and establishment of Polycomb-group-mediated repression. **Piao Ye**.

D1499A Stuxnet Facilitates the Degradation of Polycomb Protein during Development. **Alan Zhu**.

D1500B Mechanisms of epigenetic gene regulation by the *Drosophila* COMPASS-like complex. **Claudia Zraly**.

D1501C The RNA paradox: can small RNA increase gene expression? **Nikita Deshpande**.

D1502A Exploring the chromatin regulation of an inner nuclear membrane Speg (CG9723). **Chikin Kuok**.

D1503B Regulation of metazoan DNA replication fork progression, stability and composition. **Jared Nordman**.

D1504C Evaluation of genes required for telomere maintenance on *HipHop* dependent suppression of cell lethality after telomere loss. **Christopher Hendrix**.

D1505A Tip60/HDAC balance promotes neuroprotection of cognitive function in the neurodegenerative *Drosophila* brain. **Priyalakshmi Panikker**.

RNA Biology

D1506B Regulation and scaling of developmental time during *Drosophila* embryogenesis. **Christopher Amourda**.

D1507C RNA helicase Belle/DDX3 regulates transgene expression in *Drosophila*. **Yi-Chun Huang**.

D1508A The activation of new *lawc* transcripts after the homologous long double-stranded RNA treatment in *Drosophila.* **Olga Simonova**.

D1509B Clueless is a ribonucleoprotein that binds the ribosome at the mitochondrial outer membrane. **Rachel Cox**.

D1510C Investigating a link between methyl-6 adenosine RNA and the dNab2 RNA binding protein in *Drosophila melanogaster*. **Binta Jalloh**.

D1511A Investigating a link between methyl-6 adenosine RNA and the dNab2 RNA binding protein in *Drosophila melanogaster* . **Binta Jalloh**.

D1512B The level of nuclear 80S ribosomes increases during cell stress. **Akilu Abdullahi**.

D1513C Tet and epitranscriptomics in Drosophila. **Fei Wang**.

D1514A The m^6A RNA modification controls neurogenesis and sex determination in *Drosophila* via its nuclear reader protein YT521-B. **Tina Lence**.

Techniques Resources

D1515B Regulated epithelial microenvironment chip for whole organ studies in *Drosophila*. **Cody Narciso**.

D1516C Persistence of RNAi-mediated knockdown in *Drosophila* complicates mosaic analysis yet enables highly sensitive lineage tracing. **Justin Bosch**.

D1517A A *Drosophila* RNAi library modulates Hippo pathway-dependent tissue growth. **Joseph Vissers**.

D1518B Hemophilia, direct diagnosis in Cuba suporting genetic counseling. **Niurka González**.

D1519C Efficient targeted editing of genes with a modified Crispr/Cas9 strategy. **David Li-Kroeger**.

D1520A Curation of transcript models with all available public sequencing reads. **Zhen-Xia Chen**.

D1521B Highly contiguous de novo genome assembly of a non-model metazoan using PacBio long reads. **Patrick Reilly**.

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D1522C Library preparation effects on estimating satellite DNA abundance from short-read sequencing. **Sarah Sander**.

D1523A Highly sensitive measurement of poly(A) tail by TAIL-seq2 reveals dynamic gene regulation via cytoplasmic polyadenylation during oogenesis. **Ahyeon Son**.

D1524B Improving Genome Annotation across the Drosophila Clade. **Terence Murphy**.

D1525C Ilastik- and Matlab-based computational tools to analyze biological tubes in 3-D. **Ran Yang**.

D1526A *REDfly*: The Regulatory Element Database for *Drosophila*. **Marc Halfon**.

D1527B DRSC Informatics Tools for Functional Genomics Studies, 2016 Update. **Claire Hu**.

D1528C Model organism analysis using InterMine. **Rachel Lyne**.

D1529A Enhanced orthology data in FlyBase. **Steven Marygold**.

D1530B *flyDIVaS*: A database for genus- and genome- wide divergence and selection in Drosophila. **Craig Stanley**.

D1531C A Comprehensive and Precise Genome Duplication Kit in *Drosophila melanogaster*. **Graeme Mardon**.

D1532A Do not let your money fly away: Cost-effective strategies for new investigators operating a fly lab. **Anne-Christine Auge**.

D1533B A New Protocol to Visualize Dopamine in Whole Mount *Drosophila* Brains. **Yi Ting Liu**.

D1534C What's new at the Bloomington Drosophila Stock Center. **Annette Parks**.

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Mouse Genetics 2016 Conference

Posters

Human Disease Models

M5001A Oncogenic Role of BRE (BRCC45) by USP7-mediated CDC25A Deubiquitylation. **Kajal Biswas**.

M5002B Genes, Orthologs, and Human Diseases: How Model Organism Databases and the Gene Ontology Empower Knowledge Discovery. **Judith Blake**.

M5003C Neonatal Exposure to UV-Radiation and NER Pathway Deficiencies Enhance Melanomagenesis In A Novel Transgenic K5-*Edn3* Mouse Model. **Diana Cardero**.

M5004A In vivo Modeling of Heritable Dopamine Transporter Dysfunction Associated with Neuropsychiatric Disorders. **Gwynne Davis**.

M5005B KDM1A inhibition may contribute to MAPT (tau)-mediated neurodegeneration in Alzheimer's disease. **Amanda Engstrom**.

M5006C Degenerative transformations in the Liver and Gonads of male Wister albino rats by *Irvingia gabonensis* (Aubery-Lecomte ex O'Rouke) Seed extract. **Hannah Etta**.

M5007A Embryo and neonate phenotyping identifies new genes essential for mammalian development. **Ann Flenniken**.

M5008B Gene expression and regulation in food restricted mice. **Douglas Guarnieri**.

M5009C The role of *Arid1a* as a suppressor of spontaneous mammary tumors in mice. **Nithya Kartha**.

M5010A Mitochondrial Fetal Drive in Response to Nutritional Stress during Gestation. **Robert Kesterson**.

M5011B A spontaneous mutation of neurexin III in the 129S1/SvImJ strain of mice enhances empathic fear behavior. **Sehoon Keum**.

M5012C Animal Models in Diabetes Research. **Karunakaran Kumar**.

M5013A Integrated analysis of the Jackson Laboratory Knockout Mouse Project 2 (KOMP2) data. **Vivek Kumar**.

M5014B Identifying Causal Variants for an Allergen-Induced Inflammation QTL. **Lucas Laudermilk**.

M5015C Identification of Genetic Modifier Loci that Affect Early Sudden Death in a Mouse Model of Accelerated Heart Aging. **Sarah Lewis**.

M5016A Resistance mitigating effect of *Artemisia annua* on *Plasmodium berghei* ANKA and *Plasmodium yoelii*. **Kangethe Lucy**.

M5017B Long-term exercise positively benefits body composition and metabolism during aging in a sex-dependent manner. **Rachel McMullan**.

M5018C Mutations in $PI(3,5)P_2$ biosynthesis and neurological disease in human and mouse. **Miriam Meisler**.

M5019A Systematization of the regulation of mammalian chromosome biology with evolutionary genetics & OMICs: A synopsis - 2016. **Ferez Nallaseth**.

M5020B A Novel Mouse Model of Leptomeningeal Melanocytic Disease Based on the Overexpression of GRM1 (mGluR1). **Joseph Palmer**.

M5021C One RING to Rule Them All: RNF212 Regulates The Size of The Ovarian Follicle Pool. **Huanyu Qiao**.

M5022A Effect of ketogenic diet on endurance running performance in males and females of two genetically distinct mouse strains. **Andreea Radulescu**.

M5023B IMPC metabolic phenotyping: Systemic search for new gene functions associated with disturbances in energy balance regulation and glucose homeostasis. **Jan Rozman**.

M5024C Extracellular matrix perturbations in the urinary tract of mouse model of vesicoureteral reflux. **Fatima Tokhmafshan**.

M5025A Translating between human and mouse genetics and phenotypes using the Human-Mouse: Disease Connection. **Monika Tomczuk**.

M5026B Identifying enhancers that regulate genes critical in mouse spermatogenesis. **Tina Tran**.

M5027C Investigating the phenotype of *Lyplal1* knockout mice. **Rachel Watson**.

M5028A Analysis of odor identification in B6;129-*Psen1*^{tm1Mpm} Tg(APPSwe, tauP301L)1Lfa/Mmjax mice. **Lisa Webb**.

M5029B SIK1 is a key regulator of adipose mass, glucose and lipid metabolism in mice. **David West**.

M5030C High-throughput multi-system phenotyping identifies pleiotropy and novel gene function. **David West**.

M5031A Newly formed heterotopic bone in

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Fibrodysplasia Ossificans Progressive still requires Activin A for maintenance and expansion. **LiQin Xie**.

M5032B A trypsin-like protease from *Alternaria alternata* allergens promotes airway inflammation through activation of protease-activated receptor-2/β-arrestin signaling. **Michael Yee**.

M5033C An OVA-sensitized and MCh-challenged mouse phenotyping screen for new genes involved in lung function and respiratory disease. **Yingchun Zhu**.

Stem Cells

M5034A Investigating Operative DNA Damage Response Pathways in Mouse Primordial Germ Cells. **Jordana Bloom**.

M5035B *Top3b*-null Mice Show Defective Neurogenesis, Synaptic Plasticity and Increased Anxiety. **Yuyoung Joo**.

M5036C Investigating how cytoskeletal protein mutations cause Amyotrophic Lateral Sclerosis disease using neuronal cells differentiated from mouse embryonic stem cells. **Kim Nguyen**.

M5037A Androgen receptor plays distinct roles in prostate basal and luminal cells and is required for rare stem cell activities in both compartments. **Zhu Wang**.

M5038B Mammalian Retinal Regeneration in Response to an α7 nAChR Agonist. **Mark Webster**.

Epigenetics

M5039C A Transgenic Mouse Model for Understanding *cis* and *trans* Mechanisms of lncRNA *Jpx in vivo*. **Sarah Carmona**.

M5040A The cytosine methylase DIM-2 and the H3K9 methylase DIM-5 mediate clustered mutation of repetitive DNA sequences in *Neurospora crassa*. **Eugene Gladyshev**.

M5041B Histone H3R17me2a Mark Recruits TET3 to Initiate Active DNA Demethylation in mouse Zygotes. **Yuki Hatanaka**.

M5042C Downregulation of MBD2, a Mi-2/NuRD Chromatin Remodeling Complex Component, Potentiates Erythroid Terminal Differentiation and Hemoglobin Synthesis by Allowing the DNA Binding of TFCP2 (CP2c) TF Complexes. **Chul Geun Kim**.

M5043A A Targeting Small Molecule Inhibitor of MBD2-GATAD2A Interaction Induces Myeloid Leukemia Cell-specific Cell Death. **Chul Geun Kim**.

M5044B Genome wide analysis of transcriptional profiles of *Usp22* mutant placentas reveal impaired cancer signaling cascades. **Evangelia Koutelou**.

M5045C Imprinted DNA methylation status can be reconstituted by combining activity of distinct *H19* ICR elements in mice. **Hitomi Matsuzaki**.

M5046A On the role of the epigenetic factor PRDM9 in meiosis of the wild mouse. **Zdenek Trachtulec**.

Comparative Genomics, Computational Methods & Evolution

M5047B Full length transcript sequencing of wild derived mouse strains identifies strain specific novel gene structures. **Monica Abrudan**.

M5048C Integration of heterogeneous cross-species functional genomics data in GeneWeaver.org **Jason Bubier**.

M5049A High throughput screening of International Knock-out Mouse Consortium leads to novel gene-phenotype annotations. **James Clark**.

M5050B New exome sequencing of wild derived inbred strains of mice significantly improves power to link phenotype and genotype. **Matt Dean**.

M5051C Deep genome sequencing and variation analysis of 13 inbred mouse strains defines candidate phenotypic alleles, private variation, and homozygous truncating mutations. **Anthony Doran**.

M5052A Functional annotation of proteoforms in the Mouse Genome Database using the Protein Ontology. **Harold Drabkin**.

M5053B Unused program number

M5054C Rapid evolution of co-amplified X and Y chromosome genes and genomic structures in mice. **Alyssa Kruger**.

M5055A The future of reference assembly updates. **Valerie Schneider**.

M5056B Identifying genetic factors associated with extinction of strains in the Collaborative Cross. **John Shorter**.

M5057C The genomes of *Mus caroli* and *Mus pahari* uncover the evolutionary dynamics of the

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mouse lineage. **David Thybert**.

Technological Innovations

M5058A Genetic pest management technologies to control invasive rodents. **Dona Kanavy**.

M5059B Unexpected translation reinitiation by on-target CRISPR-Cas9 genome editing. **Shigeru Makino**.

M5060C Optimisation and high-throughput production of CRISPR/Cas9-mediated knockout mouse strains. **Ed Ryder**.

Development

M5061A Elevated canonical Wnt signalling disrupts development of the embryonic midline and may underlie cases of *ZIC3*-associated Heterotaxy. **Ruth Arkell**.

M5062B HOX proteins are essential for motor neuron subtype differentiation and connectivity by regulating the expression of *Ret/Gfra* genes. **Catarina Catela**.

M5063C Genetic studies of large mammalian sex chromosome palindromes harboring testicular germline genes. **Quinn Ellison**.

M5064A Embryonic Spacing in the C3H Mouse: A Model for Abnormal Pregnancies in Mammals? **Samantha Fletcher**.

M5065B Role of a 3'UTR-dependent DAZL suppression in mouse postnatal ovary. **Kurumi Fukuda**.

M5066C SOX9 in developing heart valves and adult valve disease. **Pamela Hoodless**.

M5067A Linear-(de)ubiquitination – a (uro)chordate specific mechanism - regulates Wnt signaling in the mouse. **Sofiia Ivantsiv**.

M5068B Sperm proteome maturation in the mouse epididymis. **Timothy Karr**.

M5069C The role of *Robo* genes during development of the intervertebral discs. **Lisa Lawson**.

M5070A Study of dendritic cell development *in vitro* and *in vivo* using immortalized hematopoietic stem and progenitor cells. **Chien-Kuo Lee**.

M5071B A novel hypomorphic smoothened allele results in impaired sonic hedgehog signaling and skeletal defects. **Alyssa Long**.

M5072C Mice mutant for *Cecr2*, which codes for a chromatin remodelling protein, show severe male subfertility that significantly improves with age. **Heather McDermid**.

M5073A Regulation of murine coat color by transgenic expression of endothelin 3. **Javier Pino**.

M5074B Simulation of transient oscillatory *Neurog3* expression during pancreatic duct development. **Gerhard Przemeck**.

M5075C Oscillatory Expression of cyclin A2 Requires the E2F Consensus Binding Site. **Jessica Rakijas**.

M5076A The cilia protein ARL13B regulates axon guidance in the mouse hindbrain. **Sarah Suciu**.

M5077B Population Variability and The Teratogenic Effects of Exposure to 2, 3, 7, 8-Tetrachlorodibenzo-p-dioxin During Pregnancy. **Melanie Warren**.

M5078C The meiotic functions of aurora kinases during spermatogenesis in mice. **Stephen Wellard**.

M5079A Epithelial development of pharyngeal arches and intestine requires a member of S100 protein. **Shuying Xie**.

M5080B Establishing bipotentiality for gonadal differentiation. **Yisheng Yang**.

M5081C Embryonic lethality in mice expressing conditionally-stabilized *Ctnnb1* under control of Tg(Vil-cre)997Gum. **Ephraim Amiel Yusi**.

M5082A Post-transcriptional regulation of mouse neurogenesis by pumilio proteins. **Meng Zhang**.

M5083B Wnt/beta-catenin signaling modulates cytoskeleton dynamics to direct mammalian neural tube closure. **Chengji Zhou**.

Cancer & Immunology

M5084C An inbred *Tp53* rat model exhibits a tumor spectrum similar to human Li-Fraumeni syndrome. **James Amos-Landgraf**.

M5085A *Arl13b* is a Novel Target for the Treatment of Medulloblastoma. **Sarah Bay**.

M5086B Determining the significance of space radiation exposures: high resolution genomic mapping to determine overlap in susceptibility loci for HZE-ion induced, γ-ray induced, and

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spontaneous phenotypes in outbred mice. **Elijah Edmondson**.

M5087C Complex genetic regulation of immune cell composition and activity in a genetically variable population. **Martin Ferris**.

M5088A Evaluation of premetastatic niche formation in a mouse model of spontaneous melanoma lung metastasis. **Juliano Freitas**.
M5089B *GNL3* modulates prostate cancer metastasis susceptibility. **Minnkyong Lee**.

M5090C Molecular analysis of epidermal growth factor receptor (EGFR)-independent colorectal cancers. **Carolina Mantilla Rojas**.

M5091A Host genetic and gut microbiota variability within the C57BL/6-*Apc*^{Min} mouse affects the intestinal tumor phenotype. **Jacob Moskowitz**.

M5092B Nuclear to cytoplasmic relocalization of cyclin C directs stress-induced mitochondrial fission and promotes apoptosis in yeast and mouse cell lines. **Randy Strich**.

M5093C Combinatorial regulation of BATF and BATF2 in LPS-stimulated and Mycobacterium-infected inflammatory responses. **Harukazu Suzuki**.

Translational & Systems Genetics

M5094A Susceptibility to diethylstilbestrol exposure in mice. **David Aylor**.

M5095B Systemic metabolic effects exerted by a point mutation in the RED subdomain of PAX6. **Nirav Chhabra**.

M5096C Congenic localization of the *Moo1* obesity QTL to 319 kb. **Susanne Clee**.

M5097A *Dll1*- and *Dll4*-mediated Notch signaling in adult pancreatic β-cells is essential for the structural integrity of the islets of Langerhans and maintenance of glucose homeostasis. **Marina Fuetterer**.

M5098B Quantitative Genetic Analysis of MUC5AC and MUC5B in a Mouse Model of Asthma. **Samir Kelada**.

M5099C GeneLab: A systems biology platform for spaceflight omics data. **Sigrid Reinsch**.

International Resources

M5100A Rat Resource and Research Center. **Elizabeth Bryda**.

M5101B Using the web-based genome browser *gEVAL*, to evaluate and improve the draft assemblies of 18 strains for the Mouse Genomes Project. **William Chow**.

M5102C Phylogenetically based Gene Ontology (GO) Annotations using the Phylogenetic Annotation and INference Tool (PAINT). **Karen Christie**.

M5103A Catalogue of identified mutations in RIKEN ENU Mutant Mouse Library: a new approach for the studies on polygenic traits. **Ryutaro Fukumura**.

M5104B Utilizing NCBI's Mouse Genome Resources. **Tripti Gupta**.

M5105C Analysis of the Collaborative Cross founder strains at the German Mouse Clinic identify new and known phenotypes. **Heike Kollmus**.

M5106A Mouse SNPs and polymorphisms data on Mouse Genome Informatics. **MeiYee Law**.

M5107B Mouse Genome Nomenclature at MGI, Improved by Collaboration. **Monica McAndrews**.

M5108C Informing the Genetic Basis of Disease: Informatics for The International Mouse Phenotyping Consortium. **Terry Meehan**.

M5109A The Systems Genetics Core Facility at UNC. **Darla Miller**.

M5110B What's New in Mouse Genome Informatics (MGI)? **Joel Richardson**.

M5111C Mouse Genome Informatics tools for batch data searches and retrieval. **David Shaw**.

M5112A The Gene Expression Database (GXD): mouse developmental expression information at your fingertips. **Constance Smith**.

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Population, Evolutionary & Quantitative Genetics Meeting

Posters

Population Genomics

P2001A Identifying population differentiation in the clam shrimp Eulimnadia texana through genome assembly and pooled sequencing. **James Baldwin-Brown**.

P2002B Genetic characterization of populations of the African Jewelfish (*Hemichromis letourneuxi*) introduced to the waterways of Florida. **Natalia Belfiore**.

P2003C *Speckled feathers and bladder eyes: pleiotropic effects of the Almond mutation in pigeon*. **Rebecca Bruders**.

P2004A *CYP2D6*: Detecting New Structures for Clinical Practice. **Beatriz Carvalho Henriques**.

P2005B Evolutionary implications of recombination rate variation among populations of *Drosophila melanogaster* . **Johnny Cruz Corchado**.

P2006C The Effects of Demographic History on the Detection of Recombination Hotspots. **Amy Dapper**.

P2007A Exogenous RNA in the serum of healthy persons. **Supriyo De**.

P2008B Genetic variation, population structure, and genome assembly of the threatened Neosho madtom catfish (*Noturus placidus*). **Jared Decker**.

P2009C Unused program number

P2010A Population Genetic Analysis of Autophagy and Phagocytosis genes in *Drosophila melanogaster*. **Joo Hyun Im**.

P2011B Insertion polymorphisms of mobile elements in sexual and asexual populations of *Daphnia pulex*. **xiaoqian jiang**.

P2012C The Relationship between Host Genetic Architecture and Pathogen Susceptibility in Caenorhabditis elegans. **Lindsay Johnson**.

P2013A Characterization of Genic Microsatellite Markers (EST-SSRs) in the Endangered Tree *Quercus georgiana*. **Priyanka Kadav.**

P2014B Population genomics of *Fusarium graminearum* head blight pathogens in North America. **Amy Kelly**.

P2015C The effects of linked selection on *Capsella grandiflora*. **Tyler Kent**.

P2016A Exact calculation of the joint site frequency spectrum for generalized isolation with migration models. **Andrew Kern**.

P2017B The evolution of herbicide resistance in an agricultural weed, *Capsella bursa-pastoris*. **Julia Kreiner**.

P2018C *Saccharomyces eubayanus* population dynamics in nature and industry. **Quinn Langdon**.

P2019A A Haplotype Method Detects Diverse Scenarios of Local Adaptation from Genomic Sequence Variation. **Jeremy Lange**.

P2020B How a Framework for Evolutionary Systems Biology Can Accelerate Reproducible Modeling of Mechanistic Fitness Landscapes. **Laurence Loewe**.

P2021C Parallel seasonal selection across *Drosophila melanogaster* populations. **Heather Machado**.

P2022A Genotype calling from population-genomic sequencing data. **Takahiro Maruki**.

P2023B Whole animal genetics-by-sequencing approaches to investigate starvation resistance. **Brad Moore**.

P2024C Two locus allele frequency statistics with demography and selection using a diffusion approach. **Aaron Ragsdale**.

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P2026B Frequency, variance and power: how genetic model and demography impact association studies. **Jaleal Sanjak**.

P2027C Robust identification of hard and soft sweeps in humans via machine learning. **Daniel Schrider**.

P2028A Comprehensive genome-wide disease characterization (URSA(HD)) and tissue-specific networks (GIANT) guide discovery and functional elucidation of novel predicted disease-associated genes. **Chandra Theesfeld**.

P2029B Polygenic adaptation to an optimum shift. **Kevin Thornton**.

P2030C Genome-wide association in presence of high density marker panels and genotyped causal variants. **Sajjad Toghiani**.

P2031A Detecting patterns of microgeographical adaptation to a patchy saline environment of a single popupation of *Medicago truncatula*. **Wendy Vu**.

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P2032B Genome-wide divergence among microhabitats in *Fundulus heteroclitus*. **Dominique Wagner**.

Experimental Evolution

P2033C Essential proteins evolve slower than non-essential ones during evolution experiments. **David Alvarez-Ponce**.

P2034A Subpopulation structure in long-term cultures of *Escherichia coli* K-12. **Megan Grace Behringer**.

P2035B Phenotypic variation in individuals isolated from *Escherichia coli* long-term evolution populations. **Brian Choi**.

P2036C Quantifying host genome response to gene drive using experimental evolution. **Kaitlin Fisher**.

P2037A Leveraging haplotype-aware inference for evolve-and-resequence studies. **Sharon Greenblum**.

P2038B Genome-wide Analysis of Starvation-selected *Drosophila melanogaster*- a Genetic Model of Obesity. **Chris Hardy**.

P2039C Investigation of the prevalence of antagonistic pleiotropy. **Lucas Herissant**.

P2040A Analyses of Breast Cancer Type 1(BRCA 1) Gene of Different Mammalian Species. **Ekei Ikpeme**.

P2041B Experimental evolution of drift robustness in digital organisms. **Thomas LaBar**.

P2042C A gene's view of a long-term evolution experiment with *Escherichia coli*. **Rohan Maddamsetti**.

P2043A The fitness spectrum in adaptation of diploid yeast. **David Yuan**.

Genome Evolution

P2044B Genomic Basis of Craniofacial Diversity in Lake Malawi Cichlids. **Kawther Abdilleh**.

P2045C Repeated horizontal transfer of a fused gene encoding adjacent metabolic enzymes. **Noelle Anderson**.

P2046A Mapping the Origins of Inter-Population Skin Color Variation with Admixed Indigenous Populations . **Khai Ang**.

P2047B Genomic deletion and silencing on the Y chromosomes of Rumex hastatulus. **Felix Beaudry**.

P2048C Horizontal transfer can drive a greater transposable element load in large populations. **Justin Blumenstiel**.

P2049A Defining microRNA molecular origins to facilitate target prediction. **Glen Borchert**.

P2050B *Cis*-regulatory enhancers of social insects share ultraconserved core elements flanked by taxa specific modifications. **Thomas Brody**.

P2051C Single molecule real time sequencing reveals the detailed structure of a Y-autosome fusion in *Drosophila pseudoobscura*. **Ching-Ho Chang**.

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P2053B Transposase genes are actively expressed in vespertilionid bat somatic tissues. **Rachel Cosby**.

P2054C Cytogenetics in the post-genomic era: *Standing chromosomal variation* associated with rapid divergence in a young species pair. **Anne-Marie Dion-Côté**.

P2055A Catching de novo genes as they arise in natural populations. **Eleonore Durand**.

P2056B Few Nuclear-Encoded Mitochondrial Gene Duplicates Contribute to Male Germline-Specific Functions in Humans Compared to *Drosophila*. **Mohammadmehdi Eslamieh**.

P2057C Reconstruction of gene regulatory networks in the developing gonad of the common snapping turtle using ARACNe opens new perspectives for the study of temperature-dependent sex determination. **Lei Guo**.

P2058A Investigating the evolutionary pathways towards extremely AT rich genomes. **Weilong Hao**.

P2059B Evolution of gene regulation in nutrient starvation response between free-living and commensal yeast. **Bin He**.

P2060C Dynamics of mitochondrial genome evolution during speciation by hybridization. **Mathieu Henault**.

P2061A Detailed structure and variation of complex satellite DNA loci in *Drosophila melanogaster*. **Daniel Khost**.

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P2062B The Rate and Spectrum of Spontaneous Mutations in Social Amoeba *Dictyostelium discoideum.* . **Sibel Kucukyildirim**.

P2063C Mitochiondrial genome comparisons across major sea urchin families, with special focus on the emerging model *Tripneustes gratilla*. **Aki Laruson**.

P2064A Comparative Methylome Analyses Identify Epigenetic Loci of Transcriptional Regulation in the Human Brain. **Isabel Mendizabal**.

P2065B Exploring the last chromosome: Y-linked sequence variation in the house mouse. **Andrew Morgan**.

P2066C The evolution of sexual dimorphism of recombination rate in house mice. **April Peterson**.

P2067A Genomic disintegration in woolly mammoths on Wrangel island. **Rebekah Rogers**.

P2068B *Cis*-acting variation in gene expression dynamics within and between *Saccharomyces* species. **Ching-Hua Shih**.

P2069C Degeneration and positive selection of a non-recombining chromosomal inversion underlying behavioral polymorphism in the white-throated sparrow. **Dan Sun**.

P2070A Enhancer activity of vertebrate ultraconserved elements in fruit flies. **Toshiyuki Takano-Shimizu**.

P2071B Divergent patterns of marsupial-eutherian genomic imprinting revealed from RNA-seq analysis in the opossum, *Monodelphis domestica* . **Xu Wang**.

P2072C Comparative genomics of the *Daphnia pulex* species complex. **Zhiqiang Ye**.

P2073A Origin and spead of *de novo* genes in *Drosophila*. **Li Zhao**.

P2074B Evolution trajectories of snake genes and genomes revealed by comparative analyses of five-pacer viper. **Qi Zhou**.

Quantitative Traits

P2075C The Genomics of Drug Consumption in *Drosophila melanogaster*. **Brandon Baker**.

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P2079A Moving beyond the joint-scaling test for line cross analysis: An information-theoretic approach to estimating the composite genetic effects contributing to variation among generation means. **Jeffery Demuth**.

P2080B Genetic variation in male attractiveness: it's time to see the forest for the trees. **Szymon Drobniak**.

P2081C A comparison of PCR-based and GBS-based methodologies to fine-map anthracnose resistance loci in sorghum. **Terry Felderhoff**.

P2082A An additive genetic model is often not sufficient for predicting individual phenotypes. **Simon Forsberg**.

P2083B Estimation of genetic parameters for growth, yield and carcass quality traits in a fast-growing strain of Atlantic salmon. **Jose Gallardo**.

P2084C Tracing the signature of gene expression across time in *D. melanogaster* artificially selected for long and short sleep duration. **Susan Harbison**.

P2085A Functional validation of loci contributing to nicotine resistance in *Drosophila*. **Chad Highfill**.

P2086B Analyzing the Effects of Naturally Occurring Genetic Variants in the Sphingosine-1-Phosphate Receptor Family. **Jacob Hornick**.

P2087C Integrated Genetic Analysis Platform (IGAP) for Web-based Interactive Association Analysis and Visualization of Large Scale Genotype/Phenotype Data. **Goo Jun**.

P2088A Automated tracking and analysis of sleep-like behavior in *Drosophila* larvae. **Cecelia Kim**.

P2089B The genetic basis of the Drosophila IIS pathway response to changing nutrition. **Elizabeth King**.

P2090C A decrease in soybean seed protein is associated with an increase in domestication traits. **Edward Large**.

P2091A The genetic basis of temperature sensitivity in a mutationally induced trait. **Jonathan Lee**.

P2092B Genome-wide association mapping identifies SNPs influencing the plastic response of lifespan and age-specific fecundity to diet in *Drosophila melanogaster*. **Jeff Leips**.

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P2093C A Bayesian approach for the imputation of genotypes on observed markers in complex pedigrees. **Damien Leroux**.

P2094A Genetic basis of thermal tolerance in *Saccharomyces* species. **Xueying Li**.

P2095B Comparison of normalization and differential expression analyses using RNA-Seq data from 726 individual *Drosophila melanogaster*. **Yanzhu Lin**.

P2096C Genetic dissection of variation in sleep using the *Drosophila* Synthetic Population Resource. **Stuart Macdonald**.

P2097A The genetics of giant sperm in *Drosophila*. **Mollie Manier**.

P2098B *IRF4* haplotype diversity and associations with hair, eye and skin pigmentation in a Brazilian admixed population. **Celso Mendes-Junior**.

P2099C Genetic constraints on the learning of a complex song phenotype. **David Mets**.

P2100A The genetic basis of the coordination of nutrition and energy allocation in a synthetic population of *Drosophila melanogaster*. **Enoch Ng'oma**.

P2101B Proteome-wide association studies identify biochemical modules associated with a wing size phenotype in *Drosophila melanogaster*. **Hirokazu Okada**.

P2102C Genetics of skeletal evolution in unusually large mice from Gough Island. **Michelle Parmenter**.

P2103A Validation of candidate anthracnose resistance genes in sorghum via Brome Mosaic Virus-mediated gene silencing. **Srinivasa Rao**.

P2104B Species diversity and sexual dimorphism of ethanol sensitivity in Drosophila. **Miranda Reich**.

P2105C Is genetic architecture predictable? Modeling the roles of mutation, recombination and selective forces in shaping allelic variation. **David Remington**.

P2106A Virulence QTLs and Genome-wide Recombination Rates in *Cryptococcus*. **Cullen Roth**.

P2107B Natural variation in behavior: finding the causal genes in *Drosophila*. **Thomas Turner**.

P2108C Investigating mitochondrial and viral genome contributions to phenotype in *Saccharomyces cerevisiae*. **Sriram Vijayraghavan**.

P2109A Quantitative genetics of skeletal traits in BXD recombinant inbred strain mice. **Kristen Warncke**.

P2110B Hybrid male sterility in genetically diverse mice. **Samuel Widmayer**.

P2111C Quantitative studies on gene-environment interaction in hitchhiking behavior of *C. elegans*. **Heeseung Yang**.

P2112A Spatial and ecological determinants of genotype-by-environment interaction. **Rong-Cai Yang**.

P2113B Natural variation in sensitivity of rhabditid nematodes to microsporidia. **Gaotian ZHANG**.

Ecological Genetics

P2114C Genetic basis of octanoic acid resistance in *Drosophila sechellia*: functional analysis of a fine-mapped region. **Joseph Coolon**.

P2115A A preliminary examination of genetic diversity in mantled howler monkeys (*Alouatta palliata)* in a fragmented forest in Costa Rica. **Marie-dominique Franco**.

P2116B Population genetics of the monarch butterfly, *Danaus plexippus*, in Mexico. **Fernan Pérez-Gálvez**.

P2117C A Second Coming of sechellia: Parallel Adaptation to a Toxic Fruit in *Drosophila yakuba*. **John Pool**.

P2118A Genetic and environmental components of phenotypic and behavioral trait variation during lake sturgeon (*Acipenser fulvescens*) early ontogeny. **Kim Scribner**.

P2119B Quantification of behavioral and heritability correlates in prairie voles, a socially monogamous rodent. **Andrea Vogel**.

Adaptation and Speciation

P2120C Post-mating transcriptome profiles of *Drosophila novamexicana* females after con- and heterospecific copulation. **Yasir Ahmed**.

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P2121A Population genetics models with selection for phylogenetic inference. **Jeremy Beaulieu**.

P2122B A reverse ecology approach to understand the proximate and ultimate causes of phenotypic divergence during species formation. **Chris Eberlein**.

P2123C Genomic analysis of ancestry in hybrid mice. **Megan Frayer**.

P2124A Finding Hybrid Sterility Genes Between Two African Malaria Mosquitoes. **Raissa Green**.

P2125B Shared and species-specific transcriptional responses of barley (*Hordeum vulgare* L.) to generalist and specialist spider mite herbivores. **Robert Greenhalgh**.

P2126C Evidence for an epigenetic effect of kinship on fertility of flies (*Drosophila melanogaster)* induced by folic acid with reference to a possible similar mechanism in *Homo sapiens* at clinical dose levels. **M. Herbert**.

P2127A Robustness versus adaptation? **Pengyao Jiang**.

P2128B Fisher's Geometric Model and the Cost of Reality. **Kedar Karkare**.

P2129C Identification and characterization of the *Taeniopygia guttata* (Zebra finch) sperm proteome. **Timothy Karr**.

P2130A Genome-wide RAD genealogical analyses highlight the role of ancient genomic variation during rapid adaptation in threespine stickleback. **Thom Nelson**.

P2131B A karyological study of the artificial hybridization between *Clarias gariepinus* (Burchell, 1822) and *Heterobranchus bidorsalis* (Geoffroy, 1809). **Gladys Nzeh**.

P2132C Can Adaptive Evolution Undermine Canalization? The Case of Wing Size Evolution in High Altitude *Drosophila*. **John Pool**.

P2133A Effects of adaptive Neandertal introgression at the OAS locus on the modern human innate immune response. **Aaron Sams**.

P2134B GC-rich DNA is an inductor of adaptive response in MSCs. **Vasilina Sergeeva**.

P2135C The adaptive significance of natural genetic variation in the DNA damage response of *Drosophila melanogaster*. **Nicolas Svetec**.

P2136A Can the Y chromosome save males from the mother's curse? **J. Arvid Ågren**.

Molecular Evolution

P2137B Positive selection and centrality in the yeast and fly protein–protein interaction networks. **David Alvarez-Ponce**.

P2138C GC content evolution in the light of nucleic acid molecular dynamics. **Gregory Babbitt**.

P2139A A genetic parallel between flightlessness evolution in the Galapagos cormorant (*Phalacrocorax harrisi*) and human skeletal ciliopathies. **Alejandro Burga**.

P2140B Comparative Genomic Analysis of Zika Viruses between Southeast Asia and Microcephaly-Related South America Groups. **Thanat Chookajorn**.

P2141C Three blind mammals: Regressive evolution in the mammalian eye and the identification of new eye-specific *cis*-regulatory elements. **Nathan Clark**.

P2142A *Plasmodium vivax* mdr1 genotypes in isolates from successfully cured patients living in endemic and non-endemic Brazilian areas. **Maria de Fatima Ferreira-Da-Cruz**.

P2143B Phylogenetic reconstruction using Wright-Fisher models of sequence evolution vastly out perform standard approaches. **Michael Gilchrist**.

P2144C First report of *Rhizoctonia solani* AG-4 on tomato in Pothwar region of Pakistan. **Amjad Gondal**.

P2145A Comparative genome-wide analysis and evolutionary history of haemoglobin-processing and haem detoxification enzymes in malarial parasites. **Theerarat Kochakarn**.

P2146B Is the evolution of innate immunity the next EvoDevo? Changes in molecular function and cellular signaling in an antiviral immune system across the animal phylogeny. **Bryan Kolaczkowski**.

P2147C The lower limit of transcription error rate in the bacterium *Escherichia coli*. **Weiyi Li**.

P2148A A maximum pseudo-likelihood approach for estimating species trees. **Liang liu**.

P2149B Reduction of intergenic non-coding RNAs from the *HBS1L-MYB* locus linked to Thalassemia disease severity. **Duangkamon Loesbanluechai**.

P2150C Folding and misfolding of evolutionarily young proteins. **Joanna Masel**.

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P2151A Assessing the compatibility of eukaryotic transcript evolution with *de novo* gene birth. **Lou Nielly-Thibault**.

P2152B Improved accuracy of phylogenetic analyses by partitioning schemes that incorporate structural information. **Akanksha Pandey**.

P2153C Here and there, but not everywhere: the repeated loss of uncoupling proteins in reptiles and mammals. **Tonia Schwartz**.

P2154A Functional divergence of two young duplicate genes in *Drosophila*. **Iuri Ventura**.

P2155B Function of Ssl2 in RNA Polymerase II Transcription Start Site Scanning. **Tingting Zhao**.

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Yeast Genetics Meeting

Posters

Cell Biology

Y3001A Elimi-NAD-ing fat in old mother yeast cells. **Anthony Beas**.

Y3002B Fin1-PP1 clears the spindle assembly checkpoint protein Bub1 from the kinetochore in anaphase. **Michael Bokros**.

Y3003C How TORC controls growth through metabolism. **Jun Chen**.

Y3004A Cell-Cycle Control of a Pulse-Generating Network Restricts Frequency of Periodic Transcription. **Chun-Yi Cho**.

Y3005B The Yeast Genome Project: Exploring APD1. **Catherine Douds**.

Y3006C Mmf1p protects Hem1p from damage caused by the ubiquitous metabolic stressor, 2-aminoacrylate. **Dustin Ernst**.

Y3007A Global Analysis of Molecular Fluctuations Associated with Cell Cycle Progression in *Saccharomyces cerevisiae*. **Ben Grys**.

Y3008B Interplay between Rfa2 N-terminal phosphorylation and Rad53 dephosphorylation in regulating exit from a checkpoint in the presence of persistent DNA damage. **Stuart Haring**.

Y3009C The function of Sgo1-centromere recruitment pathway and spindle assembly checkpoint silencing. **Fengzhi Jin**.

Y3010A Regulation of lifespan by vitamin B_6 metabolism-related genes in yeast. **Yuka Kamei**.

Y3011B The role of protein acetylation in stress defense. **Jeffrey Lewis**.

Y3012C A genome-wide screening identifies novel filament-forming metabolic enzymes in *Saccharomyces cerevisiae*. **Ji-Long Liu**.

Y3013A TOR pathway mediates cytoophidium assembly in *Schizsaccharomyces pombe*. **Ji-Long Liu**.

Y3014B Candida albicans Pho84 is required for anabolic TOR signaling, stress responses and virulence determinants. **Ning-Ning Liu**.

Y3015C Response of quiescent cells to exogenous DNA damage. **Lindsey Long**.

Y3016A Regulation of lifespan by phosphate starvation response factors in budding yeast. **Yukio Mukai**.

Y3017B Natural variation in the cell adhesin, FLO11, and its effects on biofilm formation. **Helen Murphy**.

Y3018C *GPH1* over-expression rescues glycogen and calcium accumulation defects in a *pgm2*Δ mutant strain of *Saccharomyces cerevisiae*. **Katrina Ngo**.

Y3019A Strategies for metabolic engineering and optimization of *S. cerevisiae* into microbiofactories for the production of terpenes. **Philippe Prochasson**.

Y3020B NASA's BioSentinel mission: using the power of yeast genetics in deep space. **Sergio Santa Maria**.

Y3021C Dissecting the role of the transcription factor Hap1 in *Saccharomyces cerevisiae* respiration and fitness. **Kevin Serdynski**.

Y3022A Nutrient starvation induces upregulation of α-mannosidase Ams1 in *Saccharomyces cerevisiae*. **Midori Umekawa**.

Y3023B Differential Acetylation of Protein N-Termini in Response to Nutrient Starvation. **Sylvia Varland**.

Y3024C Identification of Unforeseen Functions of Ataxin-2, a Conserved Protein Linked to Neurodegenerative Disease. **Yu-San Yang**.

Y3025A Phospholipid methylation regulates sulfur homeostasis in coordination with maintenance of the epigenome. **Cunqi Ye**.

Y3026B Production of volatile aroma compounds by yeast during fermentation of Chinese Baijiu. **Cui-ying Zhang**.

Y3027C Newly made prion particles must overcome actin-based spatial quality control mechanisms. **Anita Manogaran**.

Y3028A Duplication of the budding yeast spindle pole body. **Diana Rüthnick**.

Y3029B A new experimental system to study meiotic non-allelic homologous recombination in yeast. **Hailey Conover**.

Y3030C The roles of the LINC complex in chromosome movement and nuclear dynamics in budding yeast. **Jinbo Fan**.

Y3031A Coordination of meiotic cytokinesis by the GCKIII kinase, Sps1. **Linda Huang**.

Y3032B The synaptonemal complex is dispensable for MutSγ-mediated crossover recombination during meiosis in budding yeast. **Amy MacQueen**.

Y3033C Coupling activation of the Smk1 MAPK to the completion of meiosis. **Gregory Omerza**.

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Y3034A Kel1p mediates yeast cell fusion through a Fus2p and Cdc42p-dependent mechanism. **Jean Smith**.

Y3035B *NDT80* dependent internal transcriptional initiation sites during budding yeast sporulation. **Sai Zhou**.

Y3036C *S. cerevisiae RTT105* mediates Ty1 Gag localization under stress. **Jill Keeney**.

Y3037A Early stage prion formation and the insoluble protein deposit (IPOD). **Douglas Lyke**.

Y3038B Mechanisms of suppression of Cox1p degradation by Oma1p. **Gavin McStay**.

Y3039C *MTG3*, a putative GTPase that regulates mitochondrial ribosome function in *Saccharomyces cerevisiae* . **Upasana Mehra**.

Y3040A Mitochondrial genome large scale deletions in Saccharomyces cerevisiae natural population. **Tuc Nguyen**.

Y3041B The Influence of Mitochondrial Morphology on Mitochondrial DNA Stability. **Rey Sia**.

Y3042C Nuclear to mitochondrial translocation of cyclin C promotes stress-induced fission and programmed cell death. **Daniel Smethurst**.

Y3043A Number not programmed

Y3044B Mitochondria as signaling organelles in aging. **Vladimir Titorenko**.

Y3045C [*PSI*$^{+}$] formation: Differentiating the role of the retromer complex from vacuole fusion. **Brett Wisniewski**.

Y3046A Arl1 and Ypt6 are involved in autophagy in *Saccharomyces cerevisiae*. **Shu Yang**.

Y3047B Cohesin Binding and Function at a Model Euchromatic Gene. **Melinda Borrie**.

Y3048C Ubiquilin/Dsk2 promotes inclusion body formation and lysosome-mediated disposal of mutated Huntingtin. **Kun-Han Chuang**.

Y3049A Genetic selection coupled to next-generation sequencing reveals structural requirements for tail-anchor targeting to mitochondria. **Cory Dunn**.

Y3050B Membrane trafficking underlies aging and rejuvenation. **Kiersten Henderson**.

Y3051C Clearance of mutated huntingtin protein via K63-linked ubiquitination in yeast cells. **Ryan Higgins**.

Y3052A A SUMO-targeted ubiquitin ligase reduces the toxicity and transcriptional activity of a poly-Q expanded protein. **Oliver Kerscher**.

Y3053B Mechanism of protein quality control at the inner nuclear membrane in budding yeast. **Bailey Koch**.

Y3054C Dissecting pathways underlying asymmetric plasma membrane protein retention. **Jason Rogers**.

Y3055A Protein quality control that regulates unassembled ribosomal proteins. **Min-Kyung Sung**.

Y3056B Multiple signaling pathways control the *S. cerevisiae* gene expression response to hypoxia. **Erica Avery**.

Y3057C Exploring the role of tyrosine phosphorylation in regulating Yck1/2 activity in the glucose sensing pathway. **Tora Biswas**.

Y3058A Multiple targets on the Gln3 transcription activator are cumulatively required for control of its cytoplasmic sequestration. **Terrance Cooper**.

Y3059B The ergosterol biosynthesis pathway is required for optimal induction of the unfolded protein response after phenol stress. **Gretchen Edwalds-Gilbert**.

Y3060C The scaffold protein Bem1 connects active $Cdc42_{GTP}$ to different effector proteins in a cell cycle specific manner. **Sören Grinhagens**.

Y3061A Altered expression levels of *HKR1*, which encodes a transmembrane signaling mucin, confer resistance to HM-1 killer toxin on *Saccharomyces cerevisiae*. **Shin Kasahara**.

Y3062B Multiple MAPK cascades regulate the transcription of *IME1*, the master transcriptional activator of meiosis in *Saccharomyces cerevisiae*. **Yona Kassir**.

Y3063C The Transmission Interface in Yeast Pleiotropic Drug Resistance (PDR) Pumps Controls Substrate Specificity by Linking ATP Hydrolysis to Drug Extrusion. **Karl Kuchler**.

Y3064A Boi1 and Boi2 contribute to Secretory Pathway Polarization. **Jochen Kustermann**.

Y3065B The NaCl-activated signaling network responsible for protein phosphorylation in yeast reveals potential decision points in the growth-versus-stress decision. **Matthew MacGilvray**.

Y3066C Identification of Interacting Partners of the Yeast Trans-Membrane Stress Sensor Protein Mtl1p as a Model for Drug Discovery in Fungi. **Nelson Martínez-Matías**.

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Y3067A Exploration of stress-induced genetic interactions in *Saccharomyces cerevisiae*. **Vincent Messier**.

Y3068B The Yeast Kinase Ksp1 Regulates Cellular Stress Response and mRNP Dynamics. **Nebibe Mutlu**.

Y3069C Investigation of the nuclear translocation and degradation of Mth1. **Jacqueline Pierce**.

Y3070A Novel interacting protein partners of Wsc1p and Mid2p identified by iMYTH and TAP-MS. **Ednalise Santiago-Cartagena**.

Y3071B Spatial control of translation repression and polarized growth by conserved NDR kinase Orb6 and RNA-binding protein Sts5. **Illyce Suarez**.

Chromosome Structure, Variation, Evolution and Dynamics

Y3072C Ty1 integrase interacts with RNA polymerase III-specific subunits to promote insertion of Ty1 elements into the *Saccharomyces cerevisiae* genome. **Stephanie Cheung**.

Y3073A The Shu complex promotes error-free tolerance of alkylation-induced base-excision repair products. **Benjamin Herken**.

Y3074B The role of the MRX complex in chromosome mobility and homology search. **Fraulin Joseph**.

Y3075C Unsolicited rDNA copy number variants frequently occur in yeast deletion collections and transformations. **Elizabeth Kwan**.

Y3076A The Saccharomyces Genome Database Variant Viewer. **Olivia Lang**.

Y3077B The yeast Ty1 retrotransposon requires Nuclear Pore Complex subunits for transcription and genomic integration. **Savrina Manhas**.

Y3078C A systematic appraisal of Cdc13's domain organization. **Sofiane Mersaoui**.

Y3079A Investigating genome instability induction mechanisms in yeast *DIS3* mutants. **Karissa Milbury**.

Y3080B Diverse Sites of Chromosome Breakage in Retrotransposon Overdose Yeast Strains. **Lisa Scheifele**.

Y3081C Rad51 regulates the global mobility response to double-strand breaks. **Michael Smith**.

Y3082A How telomeres are maintained: the role of Ku-mediated telomerase recruitment. **David Zappulla**.

Gene Expression

Y3083B Combinatorial histone readout by the dual PHD domains of Rco1 mediates Rpd3S chromatin recruitment and the maintenance of transcriptional fidelity. **Julia DiFiore**.

Y3084C Defects in the nucleosome entry-exit site impair transcription termination. **Ashley Hildreth**.

Y3085A Controlling methylation during cell fate determination. **Michael Law**.

Y3086B Histone H3K4 demethylase *JHD2* antagonizes the function of highly conserved histone chaperones FACT and Spt6 through the Rpd3S histone deacetylase complex. **Kwan Yin Lee**.

Y3087C Nutrient availability impacts chronological lifespan and Sir-based silencing in S. cerevisiae. **David McCleary**.

Y3088A The histone prolyl isomerases Fpr3 and Fpr4 regulate nucleolar chromatin architecture. **Christopher Nelson**.

Y3089B Chromatin regulation of pericentromic non-coding RNA in *Saccharomyces cerevisiae* and its effect on chromosome stability. **Apoorva Ravi Shankar**.

Y3090C Interactions between variant histone H2A.Z and linker histone H1 in budding yeast. **Julianne Riggs**.

Y3091A Association of CAF-1 and Rrm3p with paused replication forks. **Hollie Rowlands**.

Y3092B Invasion of a heterochromatic locus during homologous recombination disrupts its transcriptional silencing. **Kathryn Sieverman**.

Y3093C Replication factors function in Cohesion and Condensation. **Robert Skibbens**.

Y3094A Nucleosomes Are Essential for Proper Regulation of a Multigated Promoter in *Saccharomyces cerevisiae*. **Robert Yarrington**.

Y3095B The interactions between Pol30p (PCNA, Proliferating Cell Nuclear Antigen), Chromatin Assembly Factor -1 and Rrm3p: the role of the CDC28 and CDC7 protein kinases. **Piriththiv Dhavarasa**.

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Y3096C Interaction between the HAT Gcn5 and the phosphatase PP2A-Rts1 at the yeast centromere. **Masha Evpak**.

Y3097A Set6: A novel lysine methyltransferase in *Saccharomyces cerevisiae*. **Deepika Jaiswal**.

Y3098B Fission yeasts DNA strands chirality *mat1*-switching mechanism explains development of diverse organisms. **Amar Klar**.

Y3099C NADPH levels control sirtuin-dependent heterochromatin stability in *Saccharomyces cerevisiae*. **Amara Plaza-Jennings**.

Y3100A Loss of gene silencing is not a feature of yeast aging. **Gavin Schlissel**.

Y3101B Linking the critical functions of two essential NuA4 acetyltransferase subunits. **Naomi Searle**.

Y3102C Epigenetic conversions at the telomeres of *S.cerevisiae* – links to DNA replication. **Krassimir Yankulov**.

Y3103A A closer look on telomerase RNA biogenesis –Tlc1's "lasting" story. **Emmanuel Bajon**.

Y3104B Yeast RNA 3'-end processing factors promote RNA Polymerase II ubiquitination and degradation following UV-type DNA damage. **Jason Kuehner**.

Y3105C mRNAs accumulate near transcription sites, nuclear pore complexes, or within the nucleolus when RNA processing is disrupted. **Biplab Paul**.

Y3106A A Genetic Screen of the Yeast Kinome Reveals Gin4p Regulation of mRNPs. **Eric Cosky**.

Y3107B Molecular genetic tools for manipulation of the oleaginous red yeast *Rhodotorula toruloides*. **Stephen Aves**.

Y3108C Analysis of the pseudokinase domain of the SAGA and NuA4 component Tra1. **Matthew Berg**.

Y3109A Role of chromatin modulators during polymerase switch for ribosomal RNA synthesis in *Saccharomyces cerevisiae*. **Kushal Bhatt**.

Y3110B Investigating a novel function of snRNP assembly factor Prp24 in regulating H2B monoubiquitylation. **Katie Bolling**.

Y3111C Regulation of *S. cerevisiae* in response to 4NQO by the polymorphic transcription factor, Yrr1. **Jen Gallagher**.

Y3112A Pdc2 and Thi3 in *Candida glabrata* regulate both amino acid and thiamine starvation and mediate the switch of biosynthetic capacity in response to starvation. **Christine Iosue**.

Y3113B Understanding the molecular interactions mediating transcriptional and demethylase activities of Gis1. **Purna Chaitanya Konduri**.

Y3114C Understanding heme regulation of JmjC domain containing transcription factor Gis1. **Sneha Lal**.

Y3115A Investigating the role of the *S. cerevisiae* Paf1 complex in global regulation of transcription. **Alex Lederer**.

Y3116B Magnification of negative allelic effects by environmental stress renders yeast segregants unable to grow at 37°C on ethanol. **Takeshi Matsui**.

Y3117C High-resolution phenotypic landscape of the RNA Polymerase II trigger loop. **Chenxi Qiu**.

Y3118A Comprehensive analysis of the *SUL1* promoter of *Saccharomyces cerevisiae* . **Matthew Rich**.

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Y3120C Transcriptional regulation of quiescence state promoting factor Saf1p by MADS box motif protein Rlm1p in *S.cerevisiae*. **Meenu Sharma**.

Y3121A Impairment of cell signalling in *Saccharomyces cerevisiae* as a result of suboptimal *PRPP* synthetase activity. **Eziuche Ugbogu**.

Y3122B Roles of Gis1-interacting Proteins in Heme Regulation of Gis1 Activity. **Tianyuan Wang**.

Y3123C A new method for inferring the genetic architecture of expression variation from allele-specific expression experiments. **Xinwen Zhang**.

Y3124A Bypassing quality control in 60S Ribosome Biogenesis. **Stephanie Patchett**.

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Y3125B Early branching *Saccharomyces* for understanding the genetics and evolution of an industrially important genus. **Emilyclare Baker**.

Y3126C High-throughput investigation into the

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evolutionary forces underlying sequence divergence. **Drew Doering**.

Y3127A The making of biodiversity across the yeast subphylum. **Chris Hittinger**.

Y3128B Uncovering rules governing gene replacement between humans and yeast. **Jon Laurent**.

Y3129C Evolutionary dynamics of second beneficial mutations via a double-barcoding platform. **Fangfei Li**.

Y3130A Quantitative evolutionary dynamics of a large number of yeast segregants. **Xianan Liu**.

Y3131B Mining *Saccharomyces* diversity and experimental evolution for cellulosic biofuel production. **David Peris Navarro**.

Y3132C Condition-dependent differentiation and division of labor in clonal *Saccharomyces cerevisiae* biofilms. **Birgitte Regenberg**.

Y3133A Using the experimental evolution of long-lived yeast species for testing evolutionary theories of aging. **Vladimir Titorenko**.

Y3134B Does antifungal drug resistance potentiated by Hsp90 arise from stress-induced mutations? **Alex Yuan**.

Y3135C Evolutionary and functional analysis of dubious open reading frames suggest a functional role in yeast genomes. **Gaurav Arora**.

Y3136A Genomic approaches in *Saccharomyces cerevisiae* reveal that response to the toxic spill chemical 4-methylcyclohexane-methanol is mediated by genes involved in pleiotropic drug response, in reactive oxygen species protection, and in UAS *INO* inositol biosynthetic regulation. **Michael Ayers**.

Y3137B Comparisons of the genomes of *Holleya sinecauda* and *Ashbya gossypii* – closing in on the minimal gene set for a free-living fungus. **Fred Dietrich**.

Y3138C Chromosome-specific and global effects of aneuploidy revealed by Synthetic Genetic Array analysis. **Stacie Dodgson**.

Y3139A Toxicogenomic approaches for profiling resistance to P450-activated food carcinogens and phenotyping human P450 polymorphisms in budding yeast. **Michael Fasullo**.

Y3140B Polygenic Analysis of Ethanol Tolerance and Maximal Ethanol Accumulation capacity in *Saccharomyces cerevisiae*. **Annelies Goovaerts**.

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Y3143B Investigating the effects of gene overexpression on genome stability in Saccharomyces cerevisiae. **Krystal Laframboise**.

Y3144C Analyzing Terminal Phenotypes in *Saccharomyces cerevisiae* Using Synthetic Genetic Array and High-Content Screening. **Dara Lo**.

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Y3146B Design and assembly of synthetic chromosomes *VIII* and *I*. **Jingchuan Luo**.

Y3147C Genome sequence of W303 provides insight into diverse evolutionary past. **Kinnari Matheson**.

Y3148A Synthesis, debugging and consolidation of synthetic chromosomes in yeast: *synVI* and beyond. **Leslie Mitchell**.

Y3149B Bar-seq analyses to determine the mode of action of compounds derived from feijoa fruit. **Mona Mokhtari**.

Y3150C A possible role for eIF5A post-translational modification in yeast Ty1 retrotransposition. **Alexis Morrissey**.

Y3151A High-copy number gene expression in different *Saccharomyces cerevisiae* strains reveals the impact of natural variation in wild yeast. **Dee Robinson**.

Y3152B Investigation of the genetic basis of hybrid vigor in yeast. **Nadia Sampaio**.

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Y3154A The yeast mating pathway as a model for complex trait genetics. **Stephanie Zimmerman**.

Y3155B Global analysis of genes and metabolites influencing chronological lifespan. **Haley Albright**.

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yeast as a model for eukaryotic biology. **Stacia Engel**.

Y3158B Systematic identification of human/yeast complementation pairs to create a platform for testing tumor-specific variants. **Akil Hamza**.

Y3159C Anticancer ruthenium complex KP1019 induces metabolic retooling in *Saccharomyces cerevisiae*. **Pamela Hanson**.

Y3160A Yeast RNA-binding protein Ssd1 and human FUS, implicated in ALS, share localization and features in yeast. **Cornelia Kurischko**.

Y3161B Unbiased functional annotation of compound libraries using yeast chemical genomics. **Sheena Li**.

Y3162C Identifying novel small molecules for improved antifungal drug treatment. **Kevin Murphy**.

Y3163A Discovering Novel Inhibitors of Deubiquitinases *in vivo*: Strategies using Budding Yeast. **Natasha Pascoe**.

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Y3169A Classifying Microscopy Images with Deep Learning. **Oren Kraus**.

Y3170B *Saccharomyces* Genome Database: Outreach and online training services. **Kevin MacPherson**.

Y3171C A Morphology Profile Pipeline for Genome-wide Screens in *Saccharomyces cerevisiae*. **Nil Sahin**.

Y3172A HSF-type transcription factors regulate morphogenesis in the human fungal pathogen *Candida albicans*. **Virginia Basso**.

Y3173B Dissecting *CTF4*'s role in DNA replication through a synthetic dosage lethality genetic interaction network. **Eric Bryant**.

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Y3175A Functional interaction network of the conserved NDR kinase Orb6. **Chuan Chen**.

Y3176B Measuring protein-protein assemblies with a molecular ruler in living cells. **Andrée-Ève Chrétien**.

Y3177C A network of correlated phenotypes contributes to pleiotropy in yeast single-cell morphology. **Kerry Geiler-Samerotte**.

Y3178A Expanding the yeast genetic toolkit: developing a pooled assay for genetic interactions. **Mia Jaffe**.

Y3179B A Gene Network Model of Cellular Aging and its Applications. **Hong Qin**.

Y3180C Identifying novel factors underlying stress resistance in the pathogenic yeast *Candida glabrata*. **Lauren Ames**.

Y3181A Perseverance and hetero-resistance, the epigenetic ability of a subpopulation of pathogenic yeasts to survive and grow in drug, contributes to the appearance of drug resistance via different genomic mechanisms. **Judith Berman**.

Y3182B Structure/Function Analysis of the Hif1 Histone Chaperone in *Saccharomyces cerevisiae*. **Nora Dannah**.

Y3183C Hsp90 perturbations affect genome integrity in *Candida albicans*. **Kangzhen Dong**.

Y3184A Rme1 controls chlamydospore formation in the human pathogenic yeast *Candida albicans*. **Arturo Hernandez Cervantes**.

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Y3186C Phylogenetic profiling for the elucidation of heme-iron acquisition in pathogenic yeasts. **Daniel Kornitzer**.

Y3187A Assembling whole eukaryotic genomes from mixed microbial communities using Hi-C.**Ivan Liachko**.

Y3188B Phylogenetic and phenotypic characterization of yeasts from detritivorous beetles. **Dana Wohlbach**.

Y3189C Convergent evolution of phosphate- and thiamine-regulated phosphatases: The *PMU* gene family in *C. glabrata* is analogous to the

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PHO5 gene family in *S. cerevisiae*. **Dennis Wykoff**.

Y3190A Strategies to produce high levels of extracellular cAMP based on cAMP-PKA and purine synthesis pathway regulation in *Saccharomyces cerevisiae*. **Shaolan Zou**.

Y3191B Integrating Post-Translational Modification Data into the *Saccharomyces* Genome Database. **Sage Hellerstedt**.

Y3192C Multi-omic analysis of yeast strains evolved for xylose fermentation reveals a new connection between sugar sensing and oxygen response. **Kevin Myers**.

Y3193A Quantitative phosphoproteomics identifies regulatory feedback between inositol polyphosphate signaling and yeast pseudohyphal growth. **Kaitlyn Norman**.

Y3194B Omics approaches for discovery of aging-delaying and anti-tumor compounds and defining mechanisms of their action. **Vladimir Titorenko**.

Y3195C Quantitative proteomics of the yeast Hsp70/Hsp90 interactomes during DNA damage reveals chaperone-dependent regulation of ribonucleotide reductase. **Andrew Truman**.

Y3196A Humanization of entire yeast pathways via CRISPR/Cas9. **Azat Akhmetov**.

Y3197B Assembly, characterization and application of the yeast synthetic chromosome *XII*. **Junbiao Dai**.

Y3198C Long-term real-time imaging of budding yeast with on-demand perturbation via a microfluidic examination trap. **James Helton**.

Y3199A A tandem-integration interaction sequencing platform. **Xianan Liu**.

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Posters

Cancer

Z6001A Investigating the role of tetraploid intermediates in melanoma progression. **Revati Darp**.

Z6002B Optical Control of Cancer Initiation in Zebrafish. **Zhiping Feng**.

Z6003C Synergy between Loss of *NF1* and Overexpression of *MYCN* in Neuroblastoma Is Mediated by the GAP-related Domain. **Shuning He**.

Z6004A Somatic deficiency of DNA polymerase α causes tissue-specific nuclear atypia and apoptosis in Zebrafish. **Alex lin**.

Z6005B PHF6 keeps hematopoietic lineage development in check. **Siebe Loontiens**.

Z6006C Investigating Colorectal Cancer Metastasis to Liver in Zebrafish. **Srijita Mukhopadhyay**.

Z6007A aMOTIV microscopy: mechanical characterization of the *in vivo* tissue microenvironment, a step towards living mechanical histology. **Kandice Tanner**.

Z6008B Studying the functionality of the homologous repair pathway in zebrafish embryos: heading for an in vivo functional test to evaluate the pathogenicity of BRCA2 variants identified in breast/ovarian cancer patients. **Jeroen Vierstraete**.

Z6009C Probing cancer genomes using tissue-specific genome editing. **Rajesh Vyas**.

Z6010A Understanding the mechanistic roles of Integrin Alpha 6 in tumor development using humanized zebrafish model system. **Ashley Williams**.

Z6011B Identification of melanoma progenitor cells remaining after regression in zebrafish models. **Sonia Wojciechowska**.

Cell Lineages

Z6012C Assessing the Lineage Fate of First Vs. Second Heart Field Derived Cells in Cardiac Development and Regeneration. **Jhelum Choubey**.

Cell Biology and Cell Structure

Z6013A Sensory cilia functions in zebrafish. **Judith Bergboer**.

Z6014B Positional cues within the nucleus underlie the dynamic chromosome events of meiosis in zebrafish. **Sean Burgess**.

Z6015C *marsyas:* a zebrafish mutant in GBF1 showing defects in epithelial integrity. **Thomas Hawkins**.

Z6016A Differential Lectin Binding and Coronary Angiography in Zebrafish and Giant danio. **Olubusola Shifatu**.

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Z6017B Type-Specific Cells Differentiate into Neurons in Spinal Cord of Zebrafish Embryos after Hypoxic Stress or Injury. **Chih Wei Zeng**.

Chemical Biology

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Z6019A Optogenetic Control of Cell Ablation for Regeneration Studies of Spinal Cord Injuries. **Karen Mruk**.

Z6020B Discovery of novel psychotrophic agents using zebrafish larval behavioral assays. **Ashley Williams**.

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Z6022A Melanophore-iridophore interactions during adult pigment pattern maintenance in zebrafish. **Emily Bain**.

Z6023B Using zebrafish to probe how Cdx transcription factors specify the posterior spinal cord. **Alana Beadell**.

Z6024C A transcriptomics analysis of *tbx5a* and *tbx5b* during early fin and heart development. **Erin Boyle Anderson**.

Z6025A Vegf signaling promotes vasculogenesis and arterial specification by upregulating Etv2 / Etsrp expression. **David Casie Chetty**.

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Z6026B Roles of RyR-mediated intracellular calcium mobilization in muscle development and function. **Alexis Chagovetz**.

Z6027C Zebrafish *GCaMP6s* transgenic lines for imaging calcium activities in vivo. **Jiakun Chen**.

Z6028A Zebrafish *dyrk1aa*, an orthologue of human Down syndrome gene *DYRK1A*, plays a role in cerebrovascular development. **Hyun-Ju Cho**.

Z6029B A morphogenetic role for FGF signaling in zebrafish cardiac looping and ballooning. **Briana Christophers**.

Z6030C Maturation of Photoreceptor Cells during Zebrafish Retinal Development. **Cátia Crespo**.

Z6031A Regulation of canonical Wnt signaling activity by zebrafish Nup62l. **Zongbin Cui**.

Z6032B Opto-CRISPR : a new tool for genome editing at the single cell level. **Bertrand Ducos**.

Z6033C Reverse genetics screening for uveal coloboma in zebrafish using CRISPR-Cas9 mediated genome editing. **Sunit Dutta**.

Z6034A Tbx5a functions in migration of cardiac and forelimb precursors of the anterior lateral plate mesoderm in zebrafish. **Lindsey Fong**.

Z6035B Investigating role of breast tumor kinase/protein tyrosine kinase 6 (Brk/PTK6) during zebrafish development using TALEN-generated knockout alleles. **Samantha Foster**.

Z6036C Temporal and spatial requirements for Nodal-induced anterior mesendoderm and mesoderm in anterior neurulation. **Ngawang Gonsar**.

Z6037A The Effect of Timing on Wnt Induced Neural Posteriorization. **David Green**.

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Z6039C Using diapause as a platform to dissect and understand various signaling pathways and regulatory mechanisms during early embryo development. **Chi-Kuo Hu**.

Z6040A Immune cell-independent elimination of signaling-perturbed cells support robustness of early vertebrate embryogenesis. **Tohru Ishitani**.

Z6041B *unc119* genes are required for cilia function in zebrafish. **Francesca Jean**.

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Z6043A Cartilage development requires the function of Estrogen-related receptor alpha that directly regulates sox9 expression in zebrafish. **Yong-Il Kim**.

Z6044B Characterisation of tail mutants in the self-fertilising mangrove killifish. **Tetsu Kudo**.

Z6045C Vitamin D receptor signaling is required to modulate BMP signaling during cranial cartilage development in zebrafish. **Hye-Joo Kwon**.

Z6046A Development of left-right asymmetries in the vertebrate brain. **Ingrid Lekk**.

Z6047B Roles of PGE2 signaling pathway in ciliogenesis and organ development. **Wenyan Li**.

Z6048C Probing how cell sorting refines developmental patterning. **Zairan Liu**.

Z6049A The requirement of cell-matrix interactions for planar cell polarity and convergence and extension. **Anna Love**.

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Z6052A Eph-ephrin signaling maintains the boundary of the embryonic left-right organizer during laterality development in fish. **Anming Meng**.

Z6053B Transcriptional Regulation of Neural Plate Patterning by Wnt Signaling through the Sp1 family of Transcription Factors. **Saurav Mohanty**.

Z6054C Biomechanics of zebrafish gastrulation. **Alessandro Mongera**.

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Z6056B The formation of dorsal axial structures in zebrafish requires the activity of a homolog of the *Drosophila* gene *squid*, which regulates dorsal patterning in flies. **Marcia O'Connell**.

Z6057C Development of the second pharyngeal pouch in zebrafish; Interface of discrete developmental systems. **Kazunori Okada**.

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Z6058A The role of TGFβ member Gdf3 in left-right patterning. **Jose Pelliccia**.

Z6059B The zebrafish *specter* mutant: a role for Cyclin B1 in early embryogenesis. **Tetiana Petrachkova**.

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Z6063C Roles of RyR-mediated intracellular calcium mobilization in tissue patterning during development. **Erin Ritchie**.

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Z6065B Loss of SET- and MYND-domain-containing protein 1a (SMYD1a) leads to sarcomeric disorganization in zebrafish. **Steven Rudeck**.

Z6066C Identification of neuromast disruptor compounds through *in vivo* screening in zebrafish . **Rachna Sachanandani**.

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Z6068B Zebrafish Marcksb regulates dorsoventral axis formation by controlling BMP secretion. **Yong-Hua Sun**.

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Z6070A The regulatory subunits of calcineurin differentially direct zebrafish brain development. **Robert Thorn**.

Z6071B Regulation of cell shape changes during brain morphogenesis. **Mike Visetsouk**.

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Z6075C A family of FOX genes determines precise spatial patterns of growth and differentiation within craniofacial skeleton. **Pengfei Xu**.

Z6076A The molecular mechanism for the termination of segmentation clock during zebrafish somitogenesis. **Taijiro Yabe**.

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Z6080B Programming the Third Genome Through Mitochondrial DNA Editing. **Jarryd Campbell**.

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Z6087C The Status of Line Rederivation At The Zebrafish International Resource Center (ZIRC). **Andrzej Nasiadka**.

Z6088A NCBI's Zebrafish Genome Resources. **Nuala O'Leary**.

Z6089B Improving Homology-Directed Repair efficiencies in zebrafish. **Andy Willaert**.

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Emerging Technologies: Non-genetic Methods

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Z6100A Transcriptional landscape of the major pancreatic cells reveals conserved expression patterns amongst distant vertebrate species. **Bernard Peers**.

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Z6102C Zebrafish as a model to comparatively study male and female meiosis and sexually dimorphic responses to meiotic perturbations. **Yana Blokhina**.

Z6103A Igf3 and Amh, two Fsh-responsive growth factors, regulate spermatogonial differentiation in a concerted manner. **Jan Bogerd**.

Z6104B An improved method for gynogenesis in zebrafish produces fertile males. **Thomas Delomas**.

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Z6107B Zebrafish liver diurnal gene expression and comparative transcriptomics. **Ghislain Breton**.

Z6108C Profiling the active genomic elements of progenitor cells in the zebrafish optic tectum and telencephalon. **Rosaria Esposito**.

Z6109A Transcriptional Regulation of Heart Development in Zebrafish by ZNF143. **Laura Huning**.

Z6110B Wdr68/Dcaf7 is required to stabilize Dyrk1a protein and function. **Robert Nissen**.

Z6111C New insights into the role of DNA methylation in development and disease from a zebrafish model of ICF syndrome. **Srivarsha Rajshekar**.

Z6112A Identifying interacting ligands of human RORγ using transgenic zebrafish. **Rachel Sung**.

Z6113B Regulation of brain and heart development in zebrafish by the autism risk factor CHD8. **Jessica Tracy**.

Z6114C MicroRNA regulation of BMP signaling and its effects on vascular smooth muscle cells. **Charlene Watterston**.

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Z6116B Characterization of the *Meis2* locus. **Ted Zerucha**.

Hematopoiesis and Vascular Biology

Z6117C Precise levels of the transcription factor *gata2*, modulated through a conserved *cis*-element, are required for generation of definitive hematopoietic stem cells. **Tomasz Dobrzycki**.

Z6118A *bif* modulates the BMP pathway to pattern lateral plate mesoderm into primitive red blood cells. **Joey Ghersi**.

Z6119B Cardiac lymphatic development in the adult zebrafish. **Michael Harrison**.

Z6120C *foxc1a* and *foxc1b* exhibit distinct compensatory requirements during brain and trunk angiogenesis and haematopoietic stem cell formation in zebrafish. **Zhen Jiang**.

Z6121A Vegfa signaling promotes zebrafish intestinal vasculature development through endothelial cell migration from the posterior cardinal vein. **Andrew Koenig**.

Z6122B DLC1 is a negative regulator of directed endothelial cell migration during embryonic vascular development. **Tanja Linnerz**.

Z6123C Heparin Receptor Involvement in Zebrafish Angiogenesis. **Linda Lowe-Krentz**.

Z6124A Effect on lymphoid transcriptional regulation factors correlate with the downregulation of *lmna* during hemotopoiesis. **liping shu**.

Z6125B Establish an Tg(*zgata1:g6pd*-EGFP) zebrafish with a deficiency of 118-144 site on *g6pd*. **liping shu**.

Z6126C Integrin Alpha 6 Is Required for Neurovascular Development Of The Hindbrain In Danio Rerio. **Vinoth Sittaramane**.

Z6127A Deciphering the mechanism of action of ApoB lipoproteins on endothelial cells. **Hanoch Tempelhof**.

Z6128B Reck is a novel component of the canonical Wnt signaling pathway required for the formation of the brain blood vasculature and its barriergenic differentiation. **Jesus Torres-Vazquez**.

Z6129C The function of *prdxl* during vascular development in zebrafish. **Chang-Yi Wu**.

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Infection and Immunity

Z6133A A zebrafish model of acute kidney injury associated with systemic infection induced by intravascular bacteria injection. **Liyan Cui**.

Z6134B Host-Directed Therapies for Tuberculosis: Discoveries from a Zebrafish Chemical Screen. **Molly Matty**.

Z6135C Role of Developmental Signaling Pathways in Mycobacterial Pathogenesis. **Allison (Ali) Rosenberg**.

Z6136A Investigating interleukin-2 receptor family signaling in zebrafish. **Robert Sertori**.

Metabolism and Physiology

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Z6138C Ketohexokinase, a fructose metabolic enzyme plays an important role in somatogenesis and angiogenesis during early embryonic development. **Changzoon Chun**.

Z6139A Circadian modulation of autophagy rhythms directly through the nuclear hormone receptor Rev-erbα and indirectly via C/ebpβ in zebrafish. **Guodong Huang**.

Z6140B Involvement of The p62-Nrf2 Pathway as A Protection Mechanism against Spns1 Deficiency in Zebrafish. **Alam Khan**.

Z6141C Genetic Interaction between Spns1 and v-ATPase and Their Counteractive Dual Defects in Premature Autolysosomal Fusion and Developmental Senescence. **Shanshan Lian**.

Z6142A A transgenic approach to visualize mitochondrial dynamics associated with renal function and disease. **Yuya Sugano**.

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Models of Human Disease

Z6143B Characterizing the craniofacial *Tft^{9N}/ddx10* zebrafish mutant. **Kholod Alharthi**.

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Z6145A The regenerating fin as a model to examine the skeletal defects of Roberts Syndrome. **Rajeswari Banerji**.

Z6146B Zebrafish mutants lacking kiaa0753, a regulator of centriole duplication, phenotypically mimic human ciliopathies. **Kevin Bishop**.

Z6147C Zebrafish as a model for eye disease: congenital cataracts. **Lindy Brastrom**.

Z6148A Comparison of locomotion and cerebellar morphology in CRISPR snx14, pink1 and pla2g6 F0 mutants. **Elena Buglo**.

Z6149B Understanding Fanconi anemia core complex and associated proteins by multiplexed CRISPR/Cas9-mediated knockout mutant generation. **Blake Carrington**.

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Z6152B Generating zebrafish models of human disease to facilitate drug discovery. **Ann Davidson**.

Z6153C Functional Characterization of Epilepsy Related Genes in Zebrafish. **Tyson Fuller**.

Z6154A Determining the roles of mab21l2 in vertebrate eye development. **Natalie Gath**.

Z6155B Loss of type I collagen telopeptide lysyl hydroxylation causes musculoskeletal abnormalities in a zebrafish model of Bruck syndrome. **Charlotte Gistelinck**.

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Z6159C Novel genes critical for hypoxic preconditioning in zebrafish are regulators of insulin and glucose metabolism. **Farhad Imam**.

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Z6161B Functional Analysis of *Parla* and *Parlb* Paralogs in Zebrafish. **Megan Jung**.

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Z6171C Development of a Novel Zebrafish Sepsis Model for High-throughput Drug Screens. **Anju Philip**.

Z6172A A rapid and effective method for screening, sequencing and reporter verification of engineered frameshift mutations in zebrafish. **Sergey Prykhozhij**.

Z6173B *In vivo m*odeling of copy number variants in Marfan Syndrome and Autosomal Dominant Polycystic Kidney Disease-associated phenotypes. **Dorien Schepers**.

Z6174C The functional role of actin associated CORO2B in the pronephros of *Danio Rerio*. **Angelina Schwarz**.

Z6175A Chaperones and chromatin remodelers: functional non-cilia roles for established ciliopathy proteins. **Charles Scott**.

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Z6193A Zebrafishbrain.org: developing a community neuroanatomical resource. **Thomas Hawkins**.

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Z6196A Using larval zebrafish as an *in vivo* model system to study otoferlin, a protein expressed in the sensory hair cells and essential for hearing. **Colin Johnson**.

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Z6201C Deciphering the role of Tmie in the mechanotransduction in sensory hair cells. **Itallia Pacentine**.

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Z6203B Ntrk2b expression and function in developing brain of zebrafish. **Madhusmita Sahu**.

Z6204C Effects of neurostimulation of the habenula in serotonergic and dopaminergic systems in zebrafish. **Laura Sanchez-Lasso**.

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Z6212B Retinal patterning and saccadic eye movements in Zebrafish require Down Syndrome Cell Adhesion Molecule-Like 1. **Tong Wang**.

Z6213C Comparative analysis of cart peptide expression and function. **Ian Woods**.

Z6214A Origin and Functional Heterogeneity of Zebrafish Lateral-line Hair Cells. **Qiuxiang Zhang**.

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Z6217A Hereditary cerebellar ataxia and the role of CAMTA1, a zebrafish study. **Chiara Cianciolo Cosentino**.

Z6218B Screening for genetic interactions in the blood-brain barrier *in vivo* in the zebrafish, *Danio rerio*. **Thomas Clements**.

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Z6220A Genetic regulation of photoreceptor specification in zebrafish as a model for understading photoreceptor variation in diurnal species. **James Fadool**.

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Z6237C N-cadherin is required cell-autonomously for the collective migration of facial branchiomotor neurons. **Jane Rebman**.

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Z6241A Pard3c, an unconventional zebrafish Par-3 ortholog for organogenesis: important for cell survival and proliferation but not for apicobasal polarity. **Zheni Shi**.

Z6242B The role of microglia in neurogenesis and repair following telencephalic lesion in adult zebrafish. **Kaia Skaggs**.

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E8017B The Genomics Education Partnership: Assessment of Key Elements of a Course-based Undergraduate Research Experience (CURE). **Judith Leatherman**.

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analysis of primary literature. **Elvira Tour**.

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E8042C Alterations induced in ovarian follicular kinetics of adult zebrafish on long term exposure to environmental estrogenic contaminants. **Basavaraj Goundadkar**.

E8043A Genetic modifiers compensating for loss of epidermal growth factor receptor. **Selene Howe**.

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Fine Science Tools ™ offers more than 900 high-quality European surgical and microsurgical instruments for research scientists and other professionals. Whatever you need spring scissors, forceps, surgical accessories, scalpels and more we carry only the best. Visit us for a free copy of our complete catalog, or order online at finescience.com.

Genesee Scientific.....411
Email: blaputka@geneseesci.com
URL: http://www.geneseesci.com
Communities: W, D

Don't miss new additions to Genesee's comprehensive "Flystuff™" catalog (available worldwide) featuring the new INVICTUS™ Drosophila-specific incubator; new advancements on our patented vial reload system, the environmentally responsible and cost effective alternative to preracked vials; and also our latest innovations in Drosophila Anesthesiology! We offer interactive demonstrations and expert consultation.

Genetics Society of America ..531
Email: ruth.isaacson@thegsajournals.com
URL: http://genetics-gsa.org
Communities: W, C, D, M, P, Y, Z

Visit the Genetics Society of America and learn about GSA membership, the society's two peer-reviewed, peer-edited journals GENETICS and G3: Genes|Genomes|Genetics, as well as our educational programs, career resources, policy initiatives and advocacy activities. There will be special prize drawings, giveaways, interactive GSA presentations in our theater, and the opportunity to meet GENETICS and G3 editors.

GenetiVision Corporation 510
Email: info@genetivision.com
URL: http://www.genetivision.com
Communities: D

GenetiVision offers comprehensive transgenic and molecular biology services. We provide P-element and site-specific transgenesis, MiMIC and CRISPR injections, cloning, and recombineering. We also offer an 80 kb duplication stock collection covering >99% of chromosomes 2 and 3. Our pricing is the most competitive with the best guarantee. Try us today!

Gene Tools, LLC 715
Email: zli@gene-tools.com
URL: http://www.gene-tools.com
Communities: M, Z

Gene Tools manufactures Morpholino oligos for blocking translation, modifying splicing or inhibiting miRNA activity. Morpholinos are used in cell cultures, embryos or, as Vivo-Morpholinos, in adult animals. Morpholinos are effective, specific, stable and non-toxic. Backed by Ph.D.-level customer support, Gene Tools designs and synthesizes Morpholinos and offers cytosolic delivery options.

Hybrigenics Services SAS 716
Email: services@hybrigenics.com
URL: http://www.hybrigenics-services.com
Communities: W, C, D, M, Y, Z

A complete service provider of cutting-edge technologies dedicated to the study of protein interactions in 30+ organisms for cell biology & developmental research.
DISCOVER novel interactions in various tissue/cell types with:
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-DNA
-RNA
-Small molecules
VALIDATE existing interactions in cells
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Illumina, Inc. 515
Email: info@illumina.com
URL: http://www.illumina.com
Communities: W, C, D, M, P, Y, Z

Illumina is improving human health by unlocking the power of the genome. As the global leader in DNA sequencing and array-based technologies, we serve customers in the research, clinical, and applied markets. Our technology is enabling studies that are moving us closer to the realization of personalized medicine.

INTAVIS Bioanalytical Instruments 514
Email: mcguire@intavis.com
URL: http://www.intavis.com
Communities: W, D, M, P, Z

An internationally active company specializing in automation of ISH, IHC and other procedures in functional genomics, proteomics and peptide synthesis. The InsituPro VSi and Biolane HTI 16V perform in situ detection of RNA, DNA and proteins in a wide range of organisms in whole mounts and slides.

Integra Biosciences 610
Email: us@integra-biosciences.com
URL: http://www.integra-biosciences.com
Communities: W

Manufacturer of high-quality laboratory tools for liquid handling and media preparation. We are committed to fulfill the needs of our customers in research, diagnostics and quality control within the life science and medical industry. Visit www.integra-biosciences.com to see our new, groundbreaking VIAFLO 96 and 384 Channel Electronic Pipette.

InterMine..... 403
Email: info@intermine.org
URL: http://crossmodel.org/
Communities: W, D, M, Y, Z

Developed by the University of Cambridge, InterMine is a freely available data integration and analysis system for large and complex biological datasets. InterMine is in use by the major Model Organism databases (fruitfly, mouse, nematode, rat, yeast, zebrafish) as well as many other projects, including HumanMine for human data.

IWAKI Aquatic.....702
Email: gofish@iwakiaquatic.com
URL: http://www.iwakiaquatic.com
Communities: Z

We engineer life support systems, dosing systems and aquatic housing using reliable Iwaki metering pumps, the industry leader. With new bio-medical research expertise leading our design, we bring your lab the most reliable, efficient and easy-to-maintain systems that will provide the results you need to drive your research forward.

Knudra Transgenics.....830
Email: info@knudra.com
URL: http://www.knudra.com
Communities: W, Z

Knudra Transgenics provides transgenesis services in a variety of model organisms. We specialize in C elegans and zebrafish transgenics. From simple injections to our premium Full Build services, clients get products accelerating their scientific progress and understanding. Come see us for advise on how CRISPR, MosSCI, Tol2 or other transgenesis methods will meet your needs.

LabExpress.....608
Email: info@lab-express.com
URL: http://www.lab-express.com
Communities: W, D, P, Y

LabExpress is a media kitchen, preparing agar plates and fly food for research and teaching communities. We also sell quality materials used in the productions. We work hard to save your time!

LabTIE 733
Email: info@labtie.com
URL: http://www.labtie.com
Communities: W

LabTIE will introduce at the 2016 TAGC event a unique system, named the High Volume Breeder and Synchronizer (HVBS), that will revolutionize the breeding and synchronization of the nematode *C. elegans* with an unprecedented level of synchronization, quality and high volume output.

Lawrence Berkeley National Laboratory.....611
Email: kygee@lbl.gov
URL: http://www.lbl.gov
Communities: W, C, D, M, P, Z

Berkeley Lab is a member of the national laboratory system supported by the U.S. Department of Energy through its Office of Science. It is charged with conducting unclassified research across a wide range of scientific disciplines.

LGC Biosearch Technologies.500
Email: info@biosearchtech.com
URL: https://www.biosearchtech.com
Communities: W, C, D, M, P, Y, Z

LGC Biosearch Technologies is a global leader in custom oligo design and manufacturing for the molecular diagnostics, research and applied markets. LGC Biosearch has products for use in qPCR and end-point PCR in addition to IP relating to qPCR probe design (BHQ® and BHQplus® probes) and RNA FISH (Stellaris® assays).

Loligo Systems 701
Email: mail@loligosystems.com
URL: http://www.loligosystems.com
Communities: W, C, D, M, P, Y, Z

Founded in 2002, Loligo Systems is a privately owned research spin-off company from the University of Copenhagen and Aalborg University in Denmark. Based on a background in science and in co-operation with leading universities around the world, Loligo Systems develop new innovative products for aquatic biology, animal physiology, and behavioral research and teaching. Products are mainly animal chambers, flumes, sensors, instruments and software for automated oxygen consumption measurements, and equipment for video-based tracking and analysis of animal behaviour. We feel strongly about the international scientific community, and sponsor meetings, symposia and student prizes. Offering special-made solutions and free extensive help, advice and analysis to junior and senior scientists, is something we do every day and take pride in. Our goal is global leadership in equipment for physiological, behavioural and kinematic measurements in fish and other aquatic breathers.

MACHEREY-NAGEL Inc. 710
Email: sales-us@mn-net.com
URL: http://www.mn-net.com
Communities: W, D, M, Y, Z

MACHEREY-NAGEL provides innovative, client-driven solutions for genetic research including DNA and RNA purification, cleanup, and concentration. Our protein purification products offer flexible advantages without sacrificing quality. With over 100 years of expertise, MN offers a complete product portfolio including Bioanalysis, Filtration, Rapid Tests, Water Analysis, and Chromatography.

MilliporeSigma (Formally known as EMD Millipore).....508
Email: jaclyn.nguyen@emdmillipore.com
URL: http://www.emdmillipore.com
Communities: W, C, D, M, P, Y, Z

EMD Millipore and Sigma-Aldrich bring together world-class products, services and innovative capabilities to create a global leader in the life science industry. Our focus on genomic, proteomic and cellular analysis is supported by sample preparation, research reagents, intuitive detection platforms, and services to help customers better understand biological function and disease.

MoorAgar, Inc.....601
Email: info@mooragar.com
URL: http://www.mooragar.com
Communities: D, Z

MoorAgar, Inc. was originally Moorhead & Company (since 1935). The name change occurred in 2005. We offer the very best biological agar for research available. We offer same day shipping (in most cases) and a variety of different packaging including 1#, 2#, 5#, 10#, 20# and 25#.

Mouse Genome Informatics....433
Email: judith.blake@jax.org
URL: http://www.informatics.jax.org
Communities: M

Mouse Genome Informatics (MGI) (www.informatics.jax.org) is the primary model organism database/resource for the laboratory mouse, key animal model for the study of human biology and disease. MGI integrates comprehensive information about the genetics, genomics, expression, functional attributes and phenotypes of mouse models in a comparative context using multiple biomedical ontologies. All data is freely available.

Mutant Mouse Research & Resource Center (MMRRC) 727
Email: service@mmrrc.org
URL: http://www.mmrrc.org
Communities: M

MMRRC, a NIH funded consortium, is the resource for mouse models used in Biomedical research. One of the largest nonprofit mouse model repositories in the world, the MMRRC distributes and archives models to advance research efforts and enhance pre-clinical research with a catalog of mouse models of human disease.

National Science Foundation. 431
Communities: W, C, D, M, P, Y, Z

US Federal Agency Funding Original Research.

NemaMetrix Inc. 714
Email: nema.metrix@nemametrix.com
URL: http://nemametrix.com/
Communities: W, C, D, M, P, Y, Z

NemaMetrix Inc. offers an easy-to-use phenotyping platform that allows the pharyngeal pumps of C. elegans to be counted automatically, using the pharynx's strong electrical signal. Our technology is useful for drug screening, mutant characterization and cross species validation studies. We call it the ScreenChip System.

NightSea 700
Email: nightsea@nightsea.com
URL: http://www.nightsea.com
Communities: W, C, D, M, P, Y, Z

Need fluorescence? NIGHTSEA provides practical, economical solutions for fluorescence viewing and imaging from micro to macro scales. The popular Stereo Microscope Fluorescence Adapter gives ordinary stereomicroscopes fluorescence superpowers. With the excitation flashlights and filter glasses you can view larger subjects such as mice or zebrafish in tanks. Photography tools too!

Noldus Information Technology 718
Email: yvonne@noldus.com
URL: http://www.noldus.com
Communities: D, M, Z

Noldus IT develops professional software and instrumentation for animal behavior research for researchers worldwide to collect, analyze, manage, and present data. Solutions include high-throughput screening of embryo activity, heartbeat detection or activity monitoring in larvae, anxiety, learning and memory, shoaling, and social interaction tests in adults, and more

Novogene Corporation..... 603
Email: support@novogene.com
URL: http://www.novogene.com
Communities: Y

Novogene is a leading provider of NGS and bioinformatics analysis services. With one of the largest sequencing capacities in the world, we deliver publication-ready data rapidly at highly competitive pricing. Having completed 10,000 projects and sequenced 140,000 samples for 6,000 global customers, Novogene offers a track record of performance and reliability.

NuGEN Technologies, Inc..... 507
URL: http://www.nugeninc.com
Communities: W, C, D, M, P, Y, Z

NuGEN is a provider of the broadest range of technologies and products for accurate and targeted genomic analysis. We enable our customers to capture the truest biology achievable, independent of sample quantity or quality, using our efficient sample preparation/workflow solutions for decreased time to result and increased sample value.

Pentair Aquatic Eco-Systems..... 800
Email: PAES.General@Pentair.com
Communities: Z

Pentair Aquatic Eco-Systems of Apopka, FL, is the largest source of aquatic products and systems worldwide. PAES serves a variety of aquatic interests and industries, from aquaculture and lake management to aquariums, zoos and water gardens. Pentair delivers industry-leading products, services and solutions for its customers diverse needs in water and other fluids, thermal management and equipment protection. With 2014 revenues of $7.0 billion, Pentair employs approximately 30,000 people worldwide, working with clients and partners on six continents.

Percival Scientific, Inc..... 602
Email: SALES@PERCIVAL-SCIENTIFIC.COM
URL: http://www.percival-scientific.com
Communities: W, D, M, Y

Percival Scientific represents a rich tradition of product ingenuity and reliability throughout the world. We provide clients with reliable custom solutions designed to meet their specific research requirements. Customers rely upon Percival to meet their unique needs by providing chambers that are engineered and manufactured to their specifications. The ability to meet individual requirements to control extensive critical testing variables has allowed our company to become an industry leader. Every Percival chamber is designed and manufactured in America's heartland in Perry, Iowa. We take American Pride in engineering and manufacturing the best chambers used throughout the world.

Rainbow Transgenic Flies, Inc. 619
Email: info@rainbowgene.com
URL: http://www.rainbowgene.com
Communities: D

Located in beautiful California, RTF has been serving Drosophila fly community since 2004. Top quality of transgenic fly services and customer satisfaction are our ultimate goal. We offer competitive price, fast turn-around time and guaranteed rate of transformation, which make RTF an affordable and reliable resource for your research needs.

RAPiD Genomics, LLC 519
Email: mresende@rapid-genomics.com
URL: http://www.rapid-genomics.com
Communities: W, C, D, M, P, Y, Z

RAPiD Genomics is a DNA genotyping and genetic data analysis company that provides genomic services for companies and researchers to rapidly and cost competitively characterize genetic variation

in plants, livestock and humans. In addition, the company offers high throughput RNA-Seq, Next-Generation Sequencing and Bioinformatic services.

Roboz Surgical Instrument Co 606
Email: dmitrii@roboz.com
Communities: W, D, M, Y, Z

Roboz Surgical Instrument Company is the leading name for high quality microdissecting instruments, general surgical instruments and other surgical devices for biomedical research. Our catalog includes microdissecting scissors and forceps, microvascular clips, bone cutting instruments, suture material, instrument care and handling products, and much more.

Sable Systems International...401
Email: marketing@sablesys.com
URL: http://www.sablesys.com
Communities: W, D, M, Y

Sable Systems International is the widely cited, international standard in high resolution metabolism and behavior systems. Our systems measure gas exchange in real time for C.elegans, yeast, Drosophila, and rodents. We look forward to learning about your research needs and sharing the latest technical advances in metabolic and behavioral phenotyping.

skretting north america.....703
Email: jim.macneill@skretting.com
URL: http://zebrafish.skrettingusa.com/
Communities: Z

Skretting is a global leader in providing innovative aquatic nutritional solutions and a supplier of Gemma Micro providing complete nutrition for all life stages of Zebrafish (Danio rerio). Gemma Micro is as a highly stable feed exhibiting excellent physical characteristic, documented to improve fecundity, eliminate Artemia and reduce feeding frequency to one event per day

SoftGenetics..... 615
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URL: http://www.softgenetics.com
Communities: W, C, D, M, P, Y, Z

Featuring NextGENe software for analysis of all NGS data; Geneticist Assistant NGS Workbench, a knowledge base for the calling and archiving of variant predictions; ChimerMarker, Automated Chimerism Analysis and monitoring software; GeneMarker for MLPA, MS-MLPA, CF, Trisomy, LOH, MSI, FragileX analysis ,and Mutation Surveyor software for analysis of Sanger Sequences.

SPEX SamplePrep, LLC..... 616
Email: learnmore@spex.com
URL: http://www.spexsampleprep.com
Communities: Z

SPEX SamplePrep has provided innovative sample preparation products since 1954. Our Geno/Grinder is a high-throughput, tissue homogenizer ideal for DNA/RNA extractions. It grinds samples in a variety of formats from deep-well titer plates to 50mL centrifuge tubes. Our MiniG is ideal for labs requiring a compact yet powerful tissue homogenizer.

Sunrise Science Products..... 832
Email: info@sunrisescience.com
URL: http://www.sunrisescience.com
Communities: W, Y

Sunrise Science Products manufactures hundreds of selective and non-selective yeast media formulations, and custom recipes for any organism are quickly produced. We are also proud to distribute yeast antibodies, products for protein expression in E. coli, and unique magnetic devices for efficient isolation of DNA, RNA and proteins.

Taylor and Francis..... 626
Email: Johanna.simon@tandf.co.uk
Communities: W, C, D, M, P, Y, Z

Taylor & Francis boasts a growing and high calibre portfolio of journals and books in genetics and bioscience. Our journals are edited by some of the most prominent academics and practitioners in their fields. Visit www.tandfonline.com to browse our list of journals.

Techshot, Inc. 617
Email: rboling@techshot.com
URL: http://www.techshot.space
Communities: W, D, M, P, Y, Z

Techshot is a one-stop solution for investigators who want to conduct life science research in space. The company provides the appropriate spaceflight equipment and coordinates everything from launching your samples, to training and supervising the astronauts conducting your experiments, to recovering your samples after the mission.

Tecniplast USA 822
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URL: http://www.tecniplast.it/us/index.html
Communities: M, Z

Tecniplast has more than 60 years of experience in the design, manufacture and distribution of specialized housing products and related equipment for the laboratory animal industry: zebrafish and rodents.

The Company of Biologists 814
Email: jitske.devries@biologists.com
URL: http://www.biologists.com
Communities: W, C, D, M, P, Y, Z

The Company of Biologists is a not for profit publishing organisation dedicated to supporting and inspiring the biological community through scientific journals, meetings and grants. The Company publishes five specialist peer-reviewed journals: Development, Journal of Cell Science, Journal of Experimental Biology, Disease Models & Mechanisms and Biology Open.

Transnetyx, Inc 706
Email: egarrett@transnetyx.com
URL: http://www.transnetyx.com
Communities: M, P, Z

Transnetyx is the world leader in automated genotyping built on providing researchers and labs worldwide Fast, Easy, and Accurate genotyping for animal models. Transnetyx reporting gives labs results in 72 hours guaranteed. Using Transnetyx, researchers now have the time to focus on what matters the most - advancing their research that leads to discoveries.

Union Biometrica.....614
Email: sales@unionbio.com
URL: http://www.unionbio.com
Communities: W, D, Z

Union Biometrica provides high throughput / high content tools for genetics research. **VAST BioImager™** automates the loading & orientation of 2-7 dpf zebrafish larvae for large imaging screens at organ and cellular-level. **COPAS™ & BioSorter®** are large particle flow cytometers for gentle analysis & sorting of *C.elegans*, Drosophila and zebrafish.

Vienna Drosophila Resource Center 417
Email: office@vdrc.at
URL: http://www.vdrc.at
Communities: D

The Vienna Drosophila Resource Center (VDRC) is a non-profit research organization which aims to promote scientific discoveries in Drosophila, primarily by maintaining over 35,000 transgenic Drosophila melanogaster stocks and DNA resources and distributing them to researchers worldwide. We also provide a private stock keeping service.

Viewpoint Life Sciences Inc....415
Email: info@viewpoint.fr
URL: http://www.vplsi.com
Communities: W, C, D, M, Z

The Viewpoint Zebralab System, is a state of the art automated observation and video tracking solution for Zebrafish, Drosophila, C-Elegans and Ciliates. It is the first ever complete system for high throughput tracking and behavioural analysis of fish or insects. As pioneer in Zebrafish behaviour analysis, our Zebralab system has an innovative software used to track and calculate LIVE activity for zebrafish embryos, larvae and adults in multi-wells plates or tanks. Please visit our website www.vplsi.com to see our various applications such as 3D, Heartbeat and Bloodflow, Virtual Prey, Optokenetic, C-Shape, S-Shape, Optogenetic ...

Vision Engineering 502
Email: info@visioneng.com
URL: http://www.visioneng.us
Communities: D, M

Vision Engineerings ergonomic, patented eyepiece-less microscopy liberates users from fixed working positions and eliminates neck strain often associated with binocular microscope use. Ideal for very long working distances across a wide range of magnifications, including applications involving dissection tools and extended hours of viewing.

WellGenetics Inc. 419
Email: info@wellgenetics.com
URL: https://wellgenetics.com/
Communities: D

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

Wiki Education Foundation 518
Email: jami@wikiedu.org
URL: http://wikiedu.org
Communities: W, C, D, M, P, Y, Z

The Wiki Education Foundation is a non-profit organization providing tools and services to support university instructors as they assign their students to write for Wikipedia. At the booth, staff will provide instructional materials, advise on assignment best practices, and promote the Wikipedia Year of Science.

World Precision Instruments, Inc. 816
Email: info@wpiinc.com
URL: http://www.wpiinc.com
Communities: W, D, M, Z

World Precision Instruments (WPI) has been providing bioscience instruments to research scientists for over 50 years. Our display booth features microinjection & electroporation transfection products and related items: microscopes, micromanipulators, micro dissection instruments, pipette pullers, capillary glass. Stop at booth #816 and test drive our injection system. www.wpiinc.com.

WorldWide Life Sciences 607
Email: cconway@wwmponline.com
URL: http://www.wwmponline.com
Communities: D

WorldWide Life Sciences is quality-driven provider of essential laboratory wares to the scientific community. We are excited to launch our self-manufactured line of SoFly™ Drosophila consumables and instrumentation at TAGC 2016.Visit www.soflysupplies.com to learn more about our SoFly™ Drosophila product line.

WPI Instruments, Inc. 623
Email: sales@wpiinc.com
URL: http://www.wpiinc.com
Communities: W, D, M, Z
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Yeast-Worm-Fly 532
Email: gail.binkley@stanford.edu
URL: http://www.yeastgenome.org, www.wormbase.org, flybase.org
Communities: W, D, Y

Come visit three of the original model organism databases: SGD (Saccharomyces Genome Database, WormBase (Nematode Information Resource) and FlyBase (Database of Drosophila Genes & Genomes). Learn about our latest website features, new data types, and how to use these databases to answer your biological questions for any organism.

ZFIN (Zebrafish Model Organism Database).....409
Email: jknight@zfin.org
URL: http://www.zfin.org
Communities: Z

The Zebrafish Model Organism Database. ZFIN goals include a) be the community database for laboratory use of zebrafish, b) curate zebrafish genetic, genomic and developmental information, c) maintain zebrafish research reference data sets, d) link to corresponding data in other databases, e) facilitate use of zebrafish as a model for human biology.

ZIRC (Zebrafish International Resource Center) 407
Email: erin@zebrafish.org
URL: http://www.zebrafish.org
Communities: Z

The Zebrafish International Resource Center is a central repository for wild-type, transgenic and mutant strains of zebrafish. The mission of ZIRC is to distribute these strains and other materials to the research community. ZIRC also develops methods to improve zebrafish health and provides health services. ZIRC is supported by a grant from the NIH-ORIP (DPCPSI).

Zymo Research Corporation ..622
Email: info@zymoresearch.com
URL: http://www.zymoresearch.com
Communities: W, C, D, M, P, Y, Z

Since 1994, Zymo Research has been offering innovative, quality, and easy-to-use tools for Epigenetics research and DNA/RNA purification. As The Epigenetics Company Zymo Research is an industry leader in epigenetic product and service development. Our products are well known for their quality, affordability, efficiency, and unparalleled technical and customer support.

Saturday, July 16 8:00 AM – 10:00 AM
Grand Ballroom 3
Automated Tracking for Quantitative Phenotyping

Organizers:Andre Brown
Gordon Berman
Megan Carey

Advances in sequencing and genome editing have increasingly made phenotyping a bottleneck in genetics. At the same time, imaging technology and computer vision are becoming more accessible, bringing high-throughput quantitative phenotyping to a growing number of labs. At this workshop we will: 1) Share recent advances in animal tracking in a range of model organisms 2) Get feedback from researchers across the communities on what new technologies would be most useful in their work 3) Coordinate efforts and consider working towards a more universal open source animal tracker that can serve as a shared basis for future developments.

Saturday, July 16 8:00 AM – 10:00 AM
Crystal Ballroom J2
CRISPR-Based Genome Engineering

Organizer:Mike Boxem

In just a few years' time, CRISPR-based genome engineering has become an essential tool for many C. elegans groups. This exciting technology is still rapidly evolving, with new insights being gained regularly. This workshop offers an opportunity to learn about the latest developments in CRISPR/Cas9 genome engineering, share ideas, and gain practical tips, protocols, and insights to enable the successful application of this technology. In a series of short talks, researchers actively developing novel methods or improvements will present their work, with a focus on practical, technical advice.

Saturday, July 16 8:00 AM – 10:00 AM
Grand Ballroom 1
Using CyVerse Cyberinfrastructure to Enable Data Intensive Research, Collaboration, and Education

Organizers:Joslynn Lee
Jason Williams

CyVerse (formerly iPlant Collaborative) is a freely available cyberinfrastructure funded by the National Science Foundation. CyVerse cyberinfrastructure (software, data storage/management, High Performance Computing, and support) enables data-intensive biology by allowing users to analyze and share data efficiently. This workshop will guide attendees through demonstrations of the CyVerse platform and orient them to additional training materials. Demos will introduce data sharing, (meta)data management, resources for genome assembly, annotation, RNA-Seq, variation, and image analysis. CyVerse's mission is to empower discovery at multiple levels, from making bioinformatics applications accessible to the "average bench-biologist" to enabling big-data science that would not otherwise be possible.

Saturday, July 16 8:00 AM – 10:00 AM
Palms Ballroom Canary 1
Model Organisms to Face Environmental Problems

Organizers:Cristina Miceli
Michael Lynch
Wei Miao

In spite of general progress in environmental research, the impact of environmental changes on living organisms and human health remains deeply worrying. Monitoring of water contamination, air pollution, exposure to metals and global climate change can be faced with the contribution of modern omics techniques. This workshop has the objective to gain insight into practical environmental problems by using key model systems in which omics are largely applied. Genomics and transcriptomics are

used to identify marker-genes involved in environmental responses, to analyze differential gene expression under environmental stress, to study the relationship between genotype and phenotype, including possible epigenetic control.

Saturday, July 16 8:00 AM – 10:00 AM
St. Thomas, North Tower
Integrating Research and Teaching: Professional Development for Current and Future Faculty Members

Organizers: Rebeccah Kurzhals Joyce Fernandes
Pamela Hanson
Paula Checchi
Gretchen Edwalds-Gilbert
Eric Stoffregen
Christina Swanson

This workshop provides current and future faculty (post-docs and graduate students) from different organismal communities with a platform for presenting and discussing strategies to integrate research and pedagogy at the undergraduate level. Goals include: (1) sharing concepts and techniques that encourage integration of model organisms as teaching tools in the classroom and laboratory and (2) networking to promote discussion, collaboration, and support on professional issues associated with balancing the demands of research and teaching.

Saturday, July 16 8:00 AM – 10:00 AM
Palms Ballroom Canary 2
Informatics Resources to Aid the Genetic Dissection of Neural Circuitry

Organizers: David Osumi-Sutherland,
Owen Randlett
Paul Sternberg

With advances in imaging technology and the power of model organism genetics we can now map and functionally dissect entire neural circuits, modulating the activity specific neurons and observing the effects on behavior and circuit function. Researchers need efficient ways to query and visualise data from massive and diverse datasets to identify, understand and target circuit elements. This workshop brings together users and developers of neuroinformatics tools, techniques and resources for Zebrafish, *C.elegans* and Drosophila. As these communities are working independently to solve similar problems, this workshop provides the opportunity to discuss these problems, share solutions and promote collaboration. Melissa Haendel (Monarch initiative): Oregon Health & Science University, Portland OR

Saturday, July 16 8:00 AM – 10:00 AM
Palms Ballroom Sabal
Everything you Wanted to Know about Sex

Organizers: Artyom Kopp
Michelle Arbeitman
Mark Siegal
Mark Van Doren

The workshop will cover the molecular genetics, development, neurobiology, genomics, and evolution of sexual dimorphism, with an emphasis on cross-disciplinary interactions. Presentations by 6 invited speakers working in Drosophila, mouse, nematode, zebrafish, and ciliate models will be followed by moderated discussions. The speakers are encouraged to summarize the key ideas behind their research for people working in other models, outline the main unsolved questions, offer their opinions about future directions, and suggest connections that could be built with other models and disciplines.

Saturday, July 16 8:00 AM – 10:00 AM
Grand Ballroom 8A
modMetabolome: Model Organism Metabolomics Consortium Workshop

Organizers:Laura Reed
Arthur Edison

Metabolomics is emerging as a powerful tool for linking genetic and environmental factors with downstream phenotypes. Model organisms including mouse, zebrafish, yeast, Drosophila, and C. elegans have served as the standard bearers for eukaryotic genomic resource development and comparative genomics. Correspondingly, these organisms are also the logical choices in the field of metabolomics. With coordinated metabolomic analyses across model organism we can elucidate evolutionary conservation and innovation in eukaryotic metabolic networks and improve our understanding of human biology. The "modMetabolome" workshop seeks to promote a broad effort to characterize and curate the metabolomes of model organisms.

Saturday, July 16 8:00 AM – 10:00 AM
Palms Ballroom Royal
Feeding Behavior, Nutrition and Metabolism: Emerging Model Organisms

Organizers:Tania Reis
William Ja
Supriya Srinivasan
Amnon Schlegel

Caenorhabditis elegans, Drosophila melanogaster and Danio rerio have become powerful models for studying how diet and nutrition influence a wide range of metabolic processes. This workshop will assemble a diverse group of presentations that highlight recent advances in the field of nutrition and metabolism across these genetic model systems. The goal of this workshop is to foster discussions and encourage collaborations among individuals interested in topics ranging from food intake as a fundamental parameter of metabolism to the effects of diet on energy storage and utilization in worms, flies and zebrafish.

Saturday, July 16 8:00 AM – 10:00 AM
Crystal Ballroom J1
Functional Genomics for Conserved Gene Function Discovery

Organizers:Stephanie Mohr
Brenda Andrews
Susan Dutcher
Norbert Perrimon
Yi Zhou

Functional genomics permits gene function discovery at large scale. The power of the approach increases when related genes in multiple species are shown to have similar functions. We bring together experts in functional genomics in single-cell, invertebrate and vertebrate models to present their effective platforms, with an emphasis on cross-species studies (e.g. parallel screens in multiple species or screens in one system followed up in another). Attendees will learn about functional genomics and analysis workflows, and discuss with experts how our communities can collaborate to harness the power of model species for functional genomics screens in new and disease-relevant ways.

Saturday, July 16 8:00 AM – 10:00 AM
Crystal Ballroom G1
Cell Competition in Flies and Mice

Organizers:Erika Bach
Nicholas Baker
Laura Johnston

In cell competition, a comparison selects fitter cells during tissue growth and development. Cell competition is relevant to tissue growth, stem cell biology, regeneration and cancer. Studies in Drosophila formalized the concept of context-dependent elimination of ordinarily

viable cells and laid the groundwork for mechanistic studies in flies and mice. This workshop will bring together scientists studying cell competition in different tissues and genetic models, including (but not limited to) Drosophila and mouse, to foster communication and promote collaboration. Topics will include signaling mechanisms in diverse contexts, methodologies and the contribution of cell competition to development, aging and disease.

Saturday, July 16 8:00 AM – 10:00 AM
Crystal Ballroom G2
Developmental Mechanics

Organizers:Rodrigo Fernandez-Gonzalez
Guy Tanentzapf
Ronen Zaidel-Bar

D'Arcy Thompson in his seminal book On growth and form proposed that physical forces play a central role in animal development. Over the last twenty years, the establishment of tools to measure and manipulate mechanical forces in living organisms has demonstrated that mechanical forces influence molecular dynamics and cell behaviors during tissue morphogenesis. We will review the latest advances to visualize and quantify force generation during C. elegans, Drosophila, zebrafish and mouse development, directly targeting four communities that participate in The Allied Genetics Conference. We will discuss recent results demonstrating the interplay between physical forces, molecular dynamics and tissue morphogenesis.

Saturday, July 16 8:00 AM – 10:00 AM Grand Ballroom 2
Model Systems in Drug Discovery

Organizer:Daniela Zarnescu

Recent successes using simple models for drug screening have brought attention to model organisms ranging from yeast to nematodes, to flies and fish as emerging systems that hold great promise for the rapid discovery of high quality therapeutic leads. Talks from expert speakers will focus on the challenges and opportunities of screening for therapeutics in simple model systems. Topics will include screening approaches using various paradigms relevant to human disease. A summary discussion will focus on identifying opportunities and challenges associated with using simple models for drug discovery, and strategies for increasing visibility with funding agencies and pharmaceutical companies.

Saturday, July 16 8:00 AM – 10:00 AM
Grand Ballroom 7A
CRISPR/Cas9 - Techniques and applications in Fish, Flies, and Mice

Organizers:Lauryl MJ Nutter
John Seavitt
Edward Ryder

This workshop will show participants how CRISPR/Cas9 is being used to enhance discovery using disease model organisms. Speakers will discuss both the technical aspects of producing genetically engineered models with CRISPR/Cas9 as well as the application of those models to particular areas of interest, including undiagnosed diseases and functional genomics. Following the presentations, speakers will be available for a round table discussion with workshop participants and attendees to discuss both technical and applied aspects of the use of CRISPR/Cas9 genome editing in fish, flies and mice.

Saturday, July 16 8:00 AM – 10:00 AM
Crystal Ballroom C
Gene Function Discovery within the IMPC Resource

Organizers:Ann-Marie Mallon
Terry Meehan
James Brown
Jeremy Mason

The International Mouse Phenotyping Consortium (IMPC) is building the first truly comprehensive functional catalog of a mammalian genome by producing and characterizing a knockout mouse strain for every protein-coding gene. Data from a standardized, broad-based phenotyping pipeline annotated through a sophisticated statistical analysis pipeline to identify phenodeviants. With phenotype data now available for over 3200 genes, this workshop will focus on how to access and search this rich data source.

Saturday, July 16 8:00 AM – 10:00 AM Grand Ballroom 12-14
Utilizing NCBI Databases for Model Organism Research

Organizer:Terence Murphy

We are experiencing an exponential increase in genomic sequencing data, with profound impacts on research for all model organisms. NCBI provides a variety of resources and services to help access and take advantage of these new datasets. This workshop will cover topics related to data submission to GenBank; genome assembly efforts in mouse and zebrafish by the GRC; and annotation resources in the RefSeq and Gene databases. Annotation examples will focus on zebrafish and mouse genes, but the databases and tools that will be described are applicable to all eukaryotes represented in our databases.

Saturday, July 16 8:00 AM – 10:00 AM
Crystal Ballroom A-B
Systems Genetics in Complex Populations

Organizers:Martin Ferris
Fernando Pardo-Manuel de Villena
Logan Everett

Genetic reference populations are genetically complex, reproducible sets of animals which are derived from >2 parental inbred strains. These populations allow for the integration of population-wide phenotypic, molecular and genetic information across treatments and timescales. Furthermore, these populations are ideal for genetic mapping of complex traits, assessment of genetic perturbation on molecular pathways, and development of new disease models. In this workshop we will familiarize users with mouse (and drosophila) resources useful for these populations; as well as go through experimental design and analysis considerations and approaches for using these systems.

Saturday, July 16 8:00 AM – 10:00 AM
Grand Ballroom 11
An Introduction to Using Galaxy for Genetic Data Analysis
Organizer:**Dave Clements**

An essential component of genetics research is extracting information from large and diverse datasets using bioinformatics tools that often require researchers to become proficient in tasks such as Linux package management and system administration. Galaxy is a free open-source data integration and analysis platform that enables researchers to focus on their questions, rather than on the underlying compute infrastructure. After introducing Galaxy the workshop will demonstrate a phenotype and orthology analysis using data from ZFIN, Wormbase, SGD and other databases to discover relationships in multiple datasets from multiple sources.

Saturday, July 16 8:00 AM – 10:00 AM
Crystal Ballroom N-Q
The InterMOD Consortium: A common interface to model organism data

Organizers:Rachel Lyne
Julie Sullivan

The budding yeast, rat, zebrafish, nematode, mouse and fruitfly model organism databases (MODs) are developing a new common interface to facilitate gene discovery and analysis, for identification of interactions, disease associations, and pathways, and to build stronger bridges to and from human data. This consortium, working with the open source InterMine project, aims to improve the ease, flexibility and uniformity with which researchers can work integratively with the MOD data, and to do this by means of the nascent NIH "Cloud" Commons Framework. This interactive hands-on workshop will introduce participants to the progress made by this consortium.

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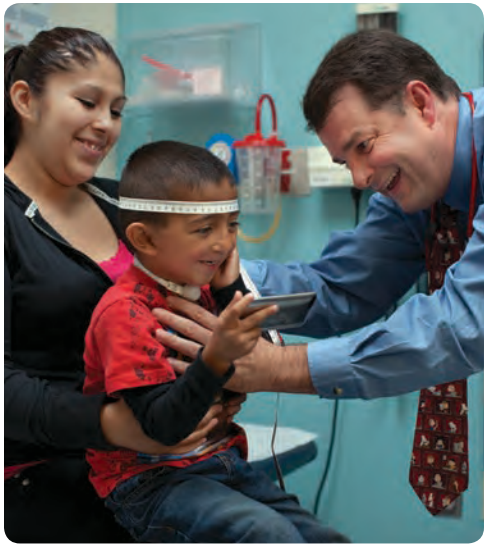

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8–13

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SEPT
12–16

SHORT COURSE ON THE GENETICS OF ADDICTION

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SHORT COURSE ON SYSTEMS GENETICS

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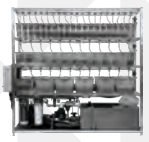

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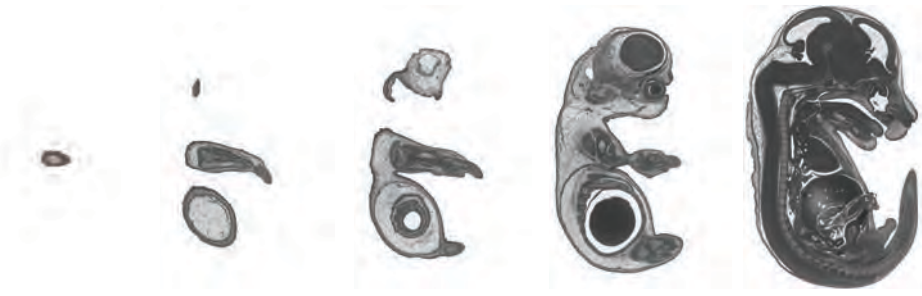

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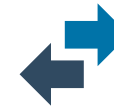

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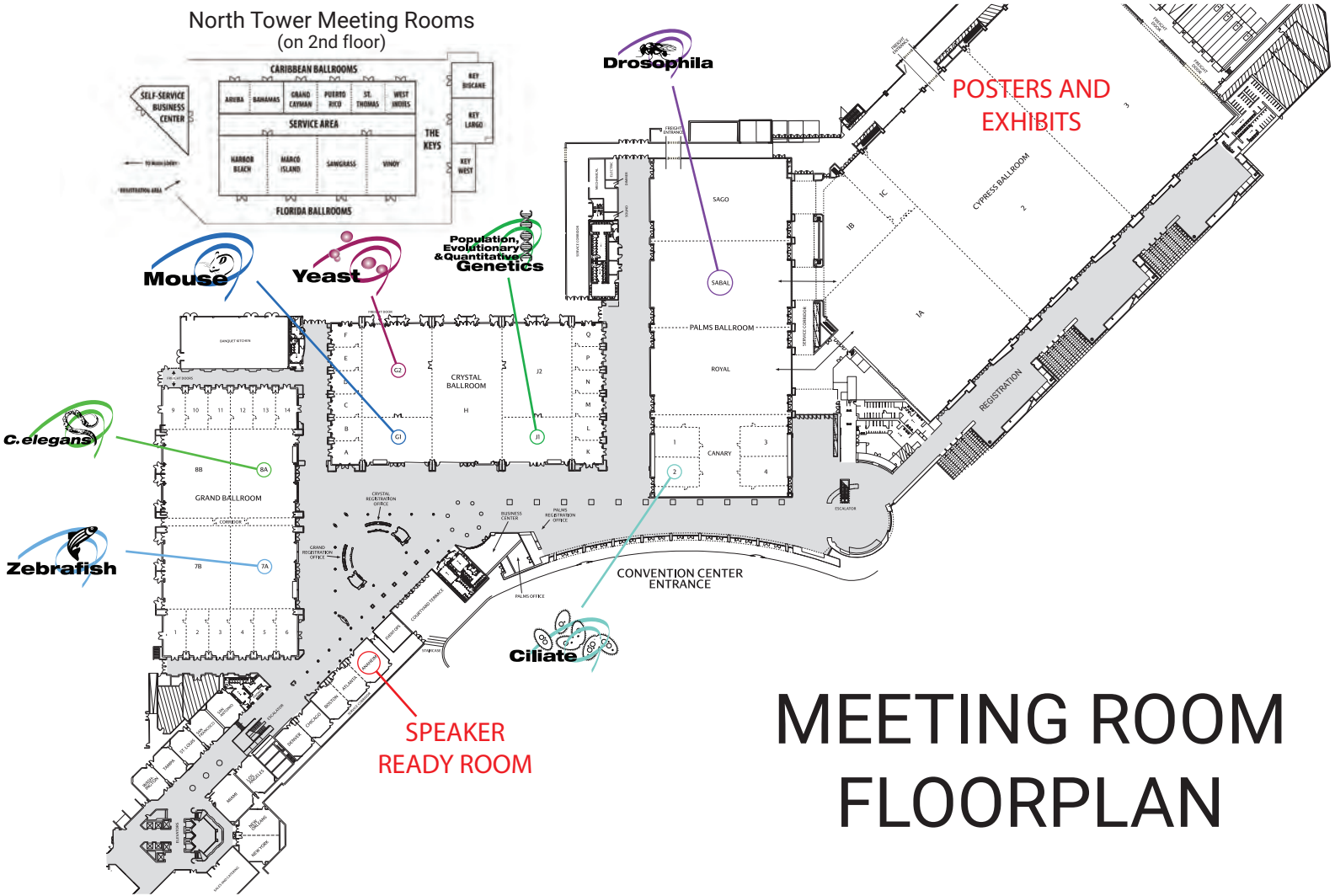

MEETING ROOM FLOORPLAN

SCHEDULE AT-A-GLANCE

Wednesday, July 13		
2:00pm- 9:30pm	Speaker Ready Room Open	Hall of Cities - Anaheim
7:00pm-9:00pm	Scientific Sessions	Multiple locations
9:00pm-11:00pm	Opening Mixer with Exhibits	Cypress Ballroom
Thursday, July 14		
7:00am-5:00pm	Speaker Ready Room Open	Hall of Cities - Anaheim
7:45am-10:00am	Joint Plenary Session	Palms Ballroom
8:00am-4:00pm	Exhibits Open	Cypress Ballroom
10:30am-12:30pm	Scientific Sessions	Multiple locations
12:30pm-1:30pm	* Mentoring Roundtables #1	North Tower - Harbor Beach
12:30pm-1:30pm	Speaking Up...Mod Org Research	Crystal Ballroom H
1:30pm-3:30pm	Poster Presentations	Cypress Ballroom
1:30pm-3:30pm	GeneticsCareers Center /Job Fair	Cypress Ballroom 1C
4:00pm-6:00pm	Scientific Sessions	Multiple locations
7:45pm-9:45pm	Scientific Sessions	Multiple locations
10:00pm-11:30pm	* Science Cafe Event	Palms Ballroom Sabal
Friday, July 15		
7:00am-5:00pm	Speaker Ready Room Open	Hall of Cities - Anaheim
8:00am-9:30am	Scientific Sessions	Multiple Locations
8:00am-4:30pm	Exhibits Open	Cypress Ballroom
10:00am-12:00pm	Scientific Session	Multiple locations
12:00pm-1:30pm	* Editor's Panel Discussion	North Tower - Harbor Beach
1:30pm-3:30pm	Poster Presentations	Cypress Ballroom
1:30pm-3:30pm	GeneticsCareers Center	Cypress Ballroom 1C
2:00pm-2:45pm	GeneticsCareers Workshop	Cypress Ballroom 1B
4:00pm-6:00pm	Scientific Sessions	Multiple locations
6:00pm-7:30pm	* WIG Panel and Networking	North Tower - Harbor Beach
7:30pm-9:30pm	Joint Plenary Session	Palms Ballroom
Saturday, July 16		
7:00am-5:00pm	Speaker Ready Room Open	Hall of Cities - Anaheim
8:00am-10:00am	Workshops	Multiple locations
8:00 am – 12:00pm	Exhibits Open	Cypress Ballroom
10:00am-12:00pm	Poster Presentations	Cypress Ballroom
10:00am-12:00pm	GeneticsCareers Center	Cypress Ballroom 1C
10:30am-11:15am	GeneticsCareers Workshop	Cypress Ballroom 1B
12:15pm-1:45pm	* Mentoring Roundtables #2	North Tower - Harbor Beach
1:45pm-3:45pm	Scientific Sessions	Multiple locations
4:00pm-6:00pm	Scientific Sessions	Multiple locations
7:30pm-9:30pm	Scientific Sessions	Multiple locations
9:30pm-11:00pm	* Closing Reception	Cypress Ballroom 1
Sunday, July 17		
8:00am-10:00am	Scientific Sessions	Multiple locations
10:30am-12:30pm	Joint Plenary Session	Palms Ballroom

** Ticketed Event*