17th Annual Janelia Symposium

February 19-20, 2026

[View abstracts HERE]

Thursday, February 19

11:30 am – 1:00 pm Poster Session (ODD numbers presenting)

Talks are 15 min + 5 min Q&A

1:00 pm Welcome & Announcements

1:05 pm Opening remarks (Nelson Spruston)

1:20 pm **Jonathan Marvin** Senior Scientist, Tool Translation Team (T3)
Observe neurotransmitters and metabolites with this ONE SIMPLE TRICK!

1:40 pm **Deepika Gupta** Research Technician, Shroff & Jayaraman Labs
Polarization Anisotropy

2:00 pm **Alix Thomas** Postdoc, Schreiter Lab
Computational engineering of modular chemigenetic biosensors

2:20 pm Break

2:45 pm **Ioannis Pisokas** Postdoc, Aso & Romani Labs
How long do I need to wait?

3:05 pm **Carmen Morrow** Engineering Manager, MCN-NET
MCN-NET: Integrating Science & Engineering

3:25 pm **Hiro Uryu** Senior Scientist, EM Shared Resource
Cryo-electron microscopy of vitreous sections (CEMOVIS) application for model organisms

3:45 pm Break

4:10 pm Special Session: Janelia Alumni [BIOS]

4:10 pm **Josh Barber** Asst Director of Aquatic & Reptilian Life, Columbia University Irving Medical Center

4:30 pm **Laura Wysocki** Professor of Chemistry, Wabash College

4:50 pm **Jasper Akerboom** Co-owner, Jasper Yeast

5:10 pm Celebratory Reception in the Lobby

Friday, February 20

11:30 am – 1:00 pm Poster Session (EVEN numbers presenting)

1:00 pm Announcements

1:05 pm **Andy Moore** Research Scientist, Lippincott-Schwartz Lab
New Photochemical Tools for Rapid Disassembly of the Cytoskeleton

1:25 pm **Di Wu** Senior Scientist, Shaohe Wang Lab
Imaging molecular tension in live tissues with WHaloForce

1:45 pm **Owen Puls** BioImage Data Analyst, Integrative Imaging
Redefining colocalization analysis with a novel Phasor Mixing Coefficient

2:05 pm Break

2:30 pm **Miguel Nunez-Ochoa** Postdoc, Pachitariu & Stringer Labs
Making sense of real-life object variations with invariant visual codes

2:50 pm **Lila Schweinfurth** Data Engineer, Scientific Computing / AI
Alignment of petascale lightsheet microscopy data for LICONN datasets

3:10 pm **Michele Nardin** Theory Fellow, C&T
Hierarchical control across scales of physiology and behavior

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3:30 pm	Break
3:55 pm	**Special Session: Janelia Alumni [BIOS]**
3:55 pm	**Jason de la Cruz** Acting Director, Structural Biology Core & Head, CryoEM Innovation Laboratory, Sloan Kettering Institute
4:15 pm	**Tanya Tabachnik** Senior Director of Scientific Platforms & Shared Resources, Columbia University Mind Brain Behavior Institute
4:35 pm	**Doug Kim** Acting Deputy Director, Division of Data Science and Technology, NIMH/NIH
4:55 pm	**Celebratory Reception in the Lobby**

(POSTER LIST ON NEXT PAGE)

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POSTER PRESENTATIONS (ODD NUMBERS PRESENT ON THURSDAY, EVEN NUMBERS ON FRIDAY)

1) A light sheet microscope for live volumetric fluorescence lifetime imaging
Chad M. Hobson, Jesse S. Aaron, Nicolas Denans, Owen F. Puls, Teng-Leong Chew

2) Measuring Amorphous Motion: Application of Optical Flow to Three-Dimensional Fluorescence Microscopy Images
Rachel M. Lee, Leanna Eisenman, Chad M. Hobson, Jesse. S. Aaron, Teng-Leong Chew

3) Redefining colocalization analysis with a novel Phasor Mixing Coefficient
Owen Puls, Jesse Aaron, Ellen Quarles, Satya Khuon, Leanna Eisenman, Andrés Kamaid, Leonel Malacrida, Teng-Leong Chew

4) Visualizing Science From The Inside-Out: High Resolution X-ray Imaging for Multiscale Scientific Research
Nirmala Iyer, Zhiheng Yu

5) High-throughput cryo-EM data collection of novel RNA structures
Nick Spellmon, Adamo Mancino, Daniel Haack, Boris Rudolfs, Jason Hingey, Navtej Toor, Rhiju Das, Zhiheng Yu

6) Studying Biology Samples Under Native Conditions Using Cryo-FIB-SEM
Xiaowei Zhao, Brenna Rea , Zhenzhong Cui, Zhiheng Yu

7) Establishment of a 2D rat primary hepatocyte culture at Janelia
Phuong Nguyen, Caire Boyer, Alexa Gracias, Sarah Lindo, Deepika Walpita, Anne Kuszpit, Dan Cortes

8) Pluripotent Stem Cell Culture Core
Aibhlin Esparza, Caroline Katz, Dan Cortes

9) Clone Wars: The Rise of Precision Picking
Alex Ludlow, Gwanho Ko, Kym Delventhal

10) A Collaborative Pipeline for Fish Line Engineering
Erin Song, Kelsey Voge, Krista Zimmerman, Mason Luck, Jared Rouchard, Anne Kuszpit and Kym Delventhal

11) Recent advances in single-cell and spatial genomic applications
Lihua wang, Allen Yang, Phuong Chung, and Castle Raley

12) Updates to Long-Read Sequencing Services
Phuong Chung, Lihua Wang, Allen Yang, and Castle Raley

13) Centralized Support for Immortalized Cell Line Cultures
Nic Rivero Ballón, Renae Preston, and Hyun Ah Yi

14) Building and Optimizing the HSV-1 Amplicon Production System — An Alternative Vector Platform for Large Cargo Gene Delivery
Sara Sahandi and Hyun Ah Yi

15) Janelia Viral Tools: Centralized Support for Viral Vector Technologies
*Renae Preston, Haley Luu, Sara Sahandi, Jocelyn Hernandez, and Hyun Ah Yi**

16) From Plasmid to Virus – The rAAV Pipeline
Jocelyn Hernandez, Haley Luu, Renae Preston, Sara Sahandi, Hyun Ah Yi

17) Characterization of a transgenic rat line permitting reversible neuronal region inactivation
Benjamin Foster, Mark Eddison, Misah Proskurin, Catherine Lindsey, Transgenics Core, Adrian Bondy, Thomas Luo, Carlos Brody, Allla Karpova, Gowan Tervo

18) Expansion by design: Matching expansion microscopy to biological questions
Monique Copeland, Mojtaba Tavakoli, Paul Tillberg,

19) New Displays for Immersive VR Systems
Andrew Woehler

20) Workload-Driven Evaluation of Edge AI Inference Hardware
Jinyang Liu, Andrew Woehler

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21) Science with Mechatronics: Power and Information -> Datasets -> Papers
Peter Polidoro, Jon Arnold

22) jETPAK – Janelia Ephys Tetherless Probe Acquisition Kit
Sasini Wickramatunga, Sam Jager, Rachel Gattoni, Steve Sawtelle, Andrea Gugiu, Jeff Talbot, Erin Solomon, Sue Ann Koay

23) Wires and Whiskers: jET's Development for Rodent Rigs
Sam Goetsch, Jeff Talbot, Steve Sawtelle

24) A Robust System for the Automation of Sequential Fluorescent In Situ Hybridization
Jeff Talbot, Jinyang Liu, Sam Goetsch, Dan Smith

25) Some instruments and capabilities for optical metrology and assembly in jET
Dan Flickinger

26) Sound source triangulation software for fish and rodents
Ben Arthur, Yuxin Pan, David Schauder, Pawel Zmarz, Chie Satou, Gowan Tervo

27) Fileglancer: a simple web app for browsing and sharing large imaging datasets at Janelia
Jody Clements, Cristian Goina, Konrad Rokicki, Allison Truhlar

28) Motile Tracker: Toward Human-in-the-Loop Joint Cell Segmentation and Tracking
Caroline Malin-Mayor, Manan Lalit, Jan Funke

29) Spatial transcriptomics pipeline development in Janelia
Shihong Max Gao, Kevin McGowan, Lihua Wang, Allen Yang, Castle Raley, Monique Copeland, Stephan Preibisch, Kym Delventhal

30) Data and Information Services - Janelia's Library and Open Data Support
Lauren Acquarole and Mike Perham

31) Unlock the Molecular Mysteries – The Mass Spectrometry Shared Resource at Janelia
Nan Wang, Wei Wu

32) Evolution of Danionella spp. at Janelia
David Parks, Jessica Pitts, Jessika Lisboa, Chie Satou, Vivek Jayaraman, Lisanne Schulze, Jared Rouchard, James Cox, Gillian Harris

33) Effect of Volatile Organic Compound (VOC) Exposure During Epoxy Flooring Installation on Reproduction and Embryonic Health in Zebrafish
Krista Zimmermann, Mason Luck, Jared Rouchard, Jeremy Delahanty, Bill Garth, Anne Kuszpit, Rob Johnson, James Cox, Gillian Harris

34) Establishing a Health Program for Danionella spp.: Clinical Observations from an Emerging Animal Model
Jessika Lisboa, David Parks, Jessica Pitts, Chie Satou, Vivek Jayaraman, Lisanne Schulze, James Cox, Gillian Harris

35) In their Home Cage Monitoring Era: Revealing the Full 24-Hours of Mouse Behavior
Kendra Morris, Rachel Gattoni, Kathy Schaefer, Michele Nardin, Anne Kuszpit

36) Refined Handling Techniques in Mice
Gillian Harris, Alyssa Martell, Catherine Lindsey, Rachel Gattoni, Kendra Morris, Crystall Lopez, Kennedy Miranda, Sara Barnes, Anne Kuszpit, James Cox

37) Animal Centric Training for Headfixed Discrimination Tasks
Michalis Michaelos, Nelson Spruston, Gabriela Michel, Boaz Mohar, Marius Pachitariu

38) Gene Targeting and Transgenic Facility (GTTF)
Shuqin Zhang, Xiaohao Yao, Shumei Zhao, Xin Su, Xulong Liang, Xianling Zhao, Caiying Guo

39) Flow Cytometry Applications at Janelia
Cherry Li and Kym Delventhal

40) Cell identification in C. elegans EM volumes using FuncEWOrm data
Stark, Alyssa; Leonard, Meghan; Krueger, Eric; Malin-Mayor, Caroline; PTR-Bioimage Analysis; FuncEWOrm project team; Reilly, Molly.

41) eFIB-SEM Shared Resource Pipeline: Supporting Large-Scale Cellular and Tissue Imaging Across HHMI/Janelia Research Programs
Christopher Bleck, Malan Silva, Wei Qiu, Gleb Shtengel, Michael Innerberg, Eric Trautman, Stephan Preibisch, Harald F. Hess, Wyatt Korff

42) Unsupervised category learning in the mouse visual cortex
Fengtong Du, Scott Baptista, Marius Pachitariu, Carsen Stringer

43) Orofacial behaviors, not eye movements, govern neural activity in mouse visual cortex
Atika Syeda, Miguel Angel Nunez-Ochoa, Lin Zhong, Marius Pachitariu, Carsen Stringer

44) HYlight-ing the Need for Improved Fructose 1,6-Bisphosphate Sensors
Juliann L. Tyler, John N. Koberstein, Alison G. Tebo

45) Bacterial metabolites regulate intestinal mitochondria dynamics via ER-mitochondria Ca2+ signaling.
Mooncheol Park, Hiro Uryu, Zhiyuan Lu, Wei Qiu, Chris Bleck, David Ackerman, Marley Bryant, Grace Park, Alyson Petruncio, Alannah Post, Jacquelyn Price, Diana Ramirez, Jeff Rhoades, Rebecca Vorimo, Aubrey Weigel, Marwan Zouinkhi, Yurii Zubov, Lang Ding, Nan Wang, and Meng C. Wang

46) The Spatial Organization of Dopamine Release–Receptor Microdomains Revealed by Transgenic Knock-In Mice Models
Chandima Bulumulla, Deng Zhang, Deepika Walpita, Nirmala Iyer, Mark Edison, David Ackerman, Hideo Otsuna, Xianling Zhao, Shuqin Zhang, Shihong M. Gao, Nan Wang and Abraham G. Beyene