

PRISE 2013 -- FINAL PRESENTATION SCHEDULING MATRIX

Monday, August 10, 2015

Date/Location in Science Center	2:40pm-2:58pm	3:00pm-3:18pm	3:20pm-3:38pm	3:40pm-3:58pm	4:00pm-4:18pm	4:20pm-4:38pm	4:40pm-4:58pm	5:00pm-5:18pm	5:20pm-5:38pm
Monday, 8/10 Room 109 Introducer: Kaitjaveet Choudhary	Dhruv Pillai , Engineering, Applying quinone redox chemistry to semi-solid flow batteries (Michael Aziz)	Christian Carrick , Mathematics, Stable homotopy theory (Michael Hopkins)	Eudora Olsen , Chemistry and Chemical Biology, Calculating Gibbs free energy using quantum chemistry (Adrian Jinich)	Nia Walker , Organismic and Evolutionary Biology, Characterizing differential gene expression in the larval stages of <i>Porites astreoides</i> (Gonzalo Giribet)	Giselle (Bella) Gomez , Chemistry and chemical biology, Characterization of glyceryl radical enzymes in the gut microbiome (Emily Balskus)	Defne Altan , Neurobiology, Identification of metabolic biomarkers for adiposity distribution and associated cancer risk (Bruce Kristal)	Max L'Etoile , Applied Mathematics, Understanding dendritic growth in metallic alloys (Frans Spaepen)	Kaan Alp Yay , Physics, Measuring the temperature of superheated water using laser diffraction patterns in a solid-state nanopore (Jene Golovchenko)	Ryan Halvorson , Bionengineering, Maskless optical patterning of hydrogels for cardiac tissue engineering (Kit Parker)
Monday, 8/10 Room 110 Introducer: Madeline Cooper	Caroline Cherston , Neurobiology, Effect of developmental activation of serotonergic neurons on adult levels of aggression in <i>Drosophila melanogaster</i> (Edward Kravitz)	Charles Alver , Bioengineering, Synthetic shark fin: Design criteria (Kevin Kit Parker)	Marc Bornstein , Chemistry, Development of a biocompatible catalyst to interfere with quorum sensing (Emily Balskus)	Anita Jiang , Medicine, Cardioprotective effects of brown adipose tissue (Marielle Scherrer-Crosbie)	Daniel Rothchild , Physics, Measuring coursework diversity of Harvard undergraduates (Stuart Shieber)	Tom Myers , Physics, Advancing the state of the art of superconducting amplifiers (Gerald Gabrielse)	Johann Gaebler , Mathematics, To Infinity and Beyond: Forcing and the continuum hypothesis (Peter Koellner)	Olumakinde Ogunnaiké , Physics and Mathematics, A He-3 magnetometer for use at 4.2K (Gerald Gabrielse)	Yi Zhang , Neurobiology, Visualizing parvalbumin circuit changes in the Rett syndrome brain (Takao Hensch)
Monday, 8/10 Room 111 Introducer: Nora Torres	Ned Lu , Neurobiology, Navigational plasticity after injury in <i>Drosophila melanogaster</i> (Benjamin de Bivort)	Tony Wu , Biomedical Engineering, Developing a materials system for transfection of HPV-associated cervical cancers for gene therapy (David Mooney)	Freddie Richards , Biochemistry, Determining candidate RNA Pol II CTD protein-binding partners (Hyunsuk Suh)	Patrick Komiske , Physics, Normal modes of an exponential block-spring system (Matthew Schwartz and Howard Georgi)	Jiho Park , Molecular and Cellular Biology, Fragment-based design of novel inhibitors against drug-resistant HIV protease (Eugene Shakhnovich)	Nicasia Beebe-Wang , Neurobiology, Thalamic reticular nucleus and sleep: auditory sensory gating and sleep spindles (Robert Stickgold)	Yanish Tucker , Human Evolutionary Biology, The effects of arm swing on angular momentum during locomotion (Daniel Lieberman)	Emily Tran , Molecular and Cellular Biology, Understanding gastrointestinal reflexes of the vagus nerve (Stephen Liberles)	Sandy Wong , Chemical and Physical Biology, Social regulation of appetite by the neuropeptide oxytocin (Sam Kunes)
Monday, 8/10 Room 112 Introducer: Arifeen Rahman	Ariana Kam , Organismic and Evolutionary Biology, The Effect of pregnancy hormones on maternal behaviors in <i>Peromyscus</i> mice (Hopi Hoekstra)	Alex Raun , Electrical Engineering, Reusable Titanium Nitride nanostructures for intracellular delivery (Eric Mazur)	Emma Schwartz , Chemistry, Implications of volatile organic compound co-contamination and isomer tracing for perfluoroalkyl acid transport (Chad Vecitis)	Vikram Sundar , Mathematics/Physics, Quantitative genome-wide analysis of the first cell division in <i>C. elegans</i> (Daniel Needleman)	Khoa Pham , Neuroscience, Whole brain imaging in <i>C. elegans</i> under influence of odours (Aravinthan Samuel)	Hueyjong Shih , Molecular and Cellular Biology, Characterizing hIPS-derived hemogenic endothelium (George Q. Daley)	Kathleen Wallace , Human Developmental and Regenerative Biology, The effect of soluble IL-13 Receptor A1 on hepatic glucose production (Richard Lee)	Michelle Lin , Human Developmental and Regenerative Biology, Generating mouse models for Lin28 expression from early embryogenesis to adulthood and its reactivation dynamics in tumorigenesis (George Q. Daley)	Sophia Lugo , History and Science, Cannibalistic larvae: Assessing feeding behavior during development in <i>Drosophila melanogaster</i> (Edward Kravitz)
Monday, 8/10 Room 113 Introducer: Viet Tran	Matt Pasquini , Earth and Planetary Sciences, Forecasting California wildfire prevalence using early season drought indicators (Loretta Mickley)	Andy Wang , Neuroscience, Characterizing hyper-aggression in "bully" strains of <i>Drosophila</i> (Edward Kravitz)	Rachel Tandias , Chemistry, Investigating the FSTL3-dependent regulation of GDF11 (Richard Lee)	Christian Shigley , Human Developmental and Regenerative Biology, The role of ApoE in B-cell <i>in vitro</i> culture (Richard Lee)	Neil Davey , Point-of-care drop-based microfluidics platform using isothermal amplification for the quantitative detection of <i>Mycobacterium tuberculosis</i> (David Weitz)	Austen Needleman , Chemistry, Functional analysis of rare an uncommon variation within an erythroid enhancer of BCL11A (Stuart Orkin and Daniel Bauer)	Prerna Bhat , OEB, Adaptive evolution of vibrissae morphology in <i>Peromyscus</i> mice (Hopi Hoekstra)	Jess Rhodes , Organismic and Evolutionary Biology, A timeline of activity and nest-building in <i>Peromyscus</i> (Hopi Hoekstra)	Alexandra Ding , Neurobiology, Small RNAs, small worms: The role of the miR-31 homolog in the <i>C. elegans</i> nervous system (Yun Zhang)

Tuesday, August 11, 2015

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Tuesday, 8/11 Room 109 Introducer: Ved Topkar	Benjamin Barnett , Chemistry, Proton transport in natural resistance associated macrophage proteins (NRAMP) (Rachelle Gaudet)	Jennifer Chiang , Neurobiology, Unraveling the Genetic basis of inflammatory bowel diseases (Hans Christian Reinecker)	Keyuree Satam , Stem Cell and Regenerative Biology, The Effect of GDF11 on hypertensive rat models (Richard Lee)	Wilder Wohns , Human Evolutionary Biology, "Why the long tendon?": The role of muscle force on gene expression and morphology in the developing Achilles tendon (Terence Capellini and Daniel Lieberman)	Jonah Kallenbach , Computer Science, Persephone: A fast key-value datastore for flash (Eddie Kohler)	Justin Dower , Organismic and Evolutionary Biology, Beesearch: A study of the effects of a neonicotinoid pesticide on bumblebees (Stacey Combes)	Mekdim Tamirat Ashebo , Electrical Engineering, Invisibility cloaks (Eric Mazur)	Amy Cohn , Astronomy, The physical properties of the bones of the Milky Way (Alyssa Goodman)	Christina Chen , Mathematics, TCR repertoire profiling by single-cell sequencing (Catherine Wu)
Tuesday, 8/11 Room 110 Introducer: Hannah Rasmussen	Jin Park , Investigating the shedding of CD44 during glycosyltransferase-programmed stereosubstitution (GPS) (Robert Sackstein)	Jonathon Nessralla , Chemistry, Characterization and reactivity of a mixed-valent dicobalt monosodium complex (Ted Betley)	Jaina Lane , Biomedical Engineering, Induction of fetal hemoglobin expression through BCL11A erythroid-specific enhancer microdeletion (Stuart Orkin)	Andrew Mayo , Astrophysics, An examination of Starspot-induced radial velocity shifts and future applications to Kepler-78 (John Johnson)	Akeem Pinnock , Molecular and Cellular Biology, Crystal structure of penicillin binding protein with cell wall synthesis inhibitors may give insight into new strategies to treat resistant bacteria (Daniel Kahne)	Samuel Emmanuel , Electrical Engineering, Electroplating on diamond for reliable microwave delivery to nanomechanical devices (Marko Loncar)	Catherine Li , Molecular and Cellular Biology, Charting the interplay of Sirt6, phosphorylated RNA polymerase II, and negative elongation factors in promoter-proximal pausing (Raul Mostoslavsky and Alon Goren)	Stefano Belfiore , Chemistry, Novel methods of detecting the concentration of oxygen in tumor cells (Conor Evans)	Tony Lin, Human Developmental and Regenerative Biology, SMYD1 as a possible treatment for MI (Richard Lee)
Tuesday, 8/11 Room 111 Introducer: Kaitjaveet Choudhary	Starr Wen , Mechanical Engineering, Large scale self-folding (Rob Wood)	Daniel W. Chen , Astrophysics and Physics, Windows in the sky: improving ground-based astronomical observations by identifying spectral windows in the Earth's atmosphere (Mercedes Lopez-Morales)	Jacob McNamara , Mathematics, Irregular Sasaki-Einstein metrics (Tristan Collins)	Alexander Su , Molecular and Cellular Biology, Development and investigation of patterned cultured neurons (Adam Cohen)	Eric Rodrigo , Bioengineering, Characterization of muscle adaptation profiles during soft exosuit walking (Conor Walsh)	Ajay Singh , Characterizing the knockout C9ORF72 mouse mode (Kevin Eggan)	Thomas Lively , Computer Science, tmalloc: a Fast, Scalable Memory Allocator (Eddie Kohler)	Ella Duncan , Human Developmental and Regenerative Biology, Dynamic imaging via the CRISPR/Cas system of a novel DNA and lncRNA regulatory interaction implicated in human cartilage formation (John Rinn)	Chris Mukasa , Molecular and Cellular Biology, Dynamics of NF- κ B in sister cells in response to TNF (Suzanne Gaudet)
Tuesday, 8/11 Room 112 Introducer: Madeline Cooper	Kevin Lee , Applied Mathematics, Analyzing Dirac cone dispersion in zero index materials with multiple scattering and effective medium theories (Eric Mazur)	Lorena Lyon , Undeclared, Gut problems? Encapsulation of lambda bacteriophage for delivery to the gut (Pamela Silver)	Jimmy Lin , Statistics, Gridsample: A method for implementing cluster samples with gridded population data (Megan Murray)	Gunjari Raychaudhuri , Molecular and Cellular Biology, Using CRISPR/Cas9 to knockout and investigate the role of has2 in zebrafish gastrulation (Alexander Schier)	Michelle Li , Human Developmental and Regenerative Biology, A comparison of endogenous signaling in human pluripotent stem cells cultured in different maintenance culture media (Joseph V. Bonventre)	Natalie Maria , Human Developmental and Regenerative Biology, Using cerebral organoids to model ASD <i>in vitro</i> (Paola Arlotta)	Eman Riaz Ahmed , Molecular and Cellular Biology, A functional analysis of GDF5 enhancers using CRISPR/cas9-mediated genome editing (Terence Capellini)	Kenneth Wang , Chemistry and Physics, Microwave spectroscopy at low temperatures (David Patterson)	Carrie Sha , Molecular and Cellular Biology, Investigating the genetic basis of schizophrenia with knockout <i>Danio rerio</i> (Alex Schier)
Tuesday, 8/11 Room 113 Introducer: Nora Torres	Hannah Resnick , Chemistry, Catalytically controlled c-glycosylation (Eric Jacobsen)	Vincent Nguyen , Applied Mathematics, Predicting age from text (Finale Doshi-Velez)	Claire Lo , Human Evolutionary Biology, Born to run... slowly?": Characterization of C-reactive protein response to different running intensities (Daniel Lieberman)	Annie Rak , Applied Mathematics, Capturing statistical dependencies in neural populations in mouse parietal cortex using a generalized linear model (Christopher Harvey)	Bennett Vogt , Chemical and Physica Biology, Homophilic interactions in neural protocadherins (Rachelle Gaudet)	Shai Szulanski , Computer Science, How computers get faster with practice: Automatically scalable computation (Margo Seltzer)	Pranav Krishnan , Neurobiology, Determining the role of a residual motor memory in songbird vocalizations (Bence Olveczky)	Anna Zhao , Human Developmental and Regenerative Biology, Interrogating the role of circadian rhythm in hematopoiesis and leukemogenesis, (George Q. Daley)	

Wednesday, August 12, 2015

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Wednesday, 8/12 Room 109 Introducer: Arifeen Rahman	Jeong Jun (JJ) Kim , Chemical and Physical Biology, Engineering an archaeal protein to image neuronal activity (Adam Cohen)	Christopher Chen , Integrative Biology, Reinforcement and hybrid fitness in three <i>Phlox</i> species (Robin Hopkins)	Mengting Qiu , Chemical and Physical Biology, Oxygen reduction reaction with manganese (III) hemo-prophyrin (Daniel G. Nocera)	Richard Ng , Molecular and Cellular Biology, Danger signaling in myocardial infarction (Ralph Weissleder)	Yixuan (Melody) Tong , Neurobiology, Sensorimotor learning using sensory prediction errors (Naoshige Uchida)	Connie Zhou , Molecular and Cellular Biology, Involvement of Inflammation in Alzheimer's disease (Tracy Young-Pearse)	Kian Sani , Developing diagnostic tools for parasitic disease (Pardis Sabeti)	Christopher Lee , Human Developmental and Regenerative Biology, Analyzing and testing the effectiveness of new drug treatments for Duchenne muscular dystrophy using zebrafish models (Louis M. Kunkel)	
Wednesday, 8/12 Room 110 Introducer: Viet Tran	Sarah Ward , Molecular and Cellular Biology, Selective pexophagy in <i>S. cerevisiae</i> : Examining Atg36 (Vlad Denic)	Kevin Sani , Chemistry, UV activated cytidine to uridine Conversion (Jack Szostak)	Mary-Grace Reeves , Chemistry, Investigation of enantioselective methods for catalysis of the [2,3]-Wittig and oxy-cope rearrangements (Eric N. Jacobsen)	Monica Lin , Chemistry, Synthesis of non-natural protein-like polymers (David R. Liu)	Nikita Shah , Human Developmental and Regenerative Biology, Role of CCBE1 in normal differentiation and proliferation of human embryonic stem cell derived cardiomyocytes (Ibrahim Domian)	Max Gersh , Organismic and Evolutionary Biology, Testate amoebae as hosts for <i>Legionella</i> bacteria (Colleen Cavanaugh)	Madeleine Snyder , Neuroscience, Mapping the inferotemporal cortex in macaque monkeys (Takao Hensch)	Amir Bitran , Physics, A model for ds-DNA pairing based on two rigid rods (Mara Prentiss)	
Wednesday, 8/12 Room 111 Introducer: Ved Topkar	Reece Akana , Chemical and Physical Biology, Generation of dihydroorotate dehydrogenase mutant zebrafish using CRISPR/Cas9 genome editing (Leonard Zon)	Harrison Li , Applied Mathematics, The suppression of Arctic air formation by cloud radiative effects in a two-dimensional cloud resolving model (Eli Tziperman)	Tara Murty , Bioengineering, Potential therapeutics for treating traumatic brain injury through the identification of changes in protein expression (Kevin 'Kit' Parker)	Raj Vatsa , Molecular and Cellular Biology, Targeting tumor cells and associated vasculature in glioblastomas (Khalid Shah)	Abderhman Abubashem , Human Developmental and Regenerative Biology, The role of heart matrix in cardiomyocyte maturation (Richard T. Lee)	Humphrey Obuobi , Bioengineering, 3D printing of vascularized tissue constructs (Jennifer Lewis)	David Gold , Chemical and Physical Biology, Elucidating the role of autophagy-related proteins in yeast gametogenesis (Vlad Denic)	Sarah Zaghouni , PI3K/AKT signaling promotes Blimp-1 expression via Akt-mediated inhibition of Foxo1 in T cells (Vijay Kuchroo)	
Wednesday, 8/12 Room 112 Introducer: Hannah Rasmussen	Shreya Vardhan , Physics and Math, Analysis of the quantum and semiclassical horseshoe maps (Eric Heller)	Niamh Durfee , Chemistry, A new tool for visualizing integrated proteomic data (Eugene Shakhnovich)	Yankang Yang , Mechanical Engineering, Finding new legs: Optimizing the locomotion of a quadrupedal microrobot (Rob Wood)		Jessica Herrmann , Biomedical engineering, 3D printing of vascularized tissue constructs (Jennifer Lewis)	Andrew Chang , Undecided, Botswana combination prevention project: Long-range HIV-1 subtype C genotyping and its effect on phylogenetic analysis (Max Essex)	Alan Yang , Molecular and Cellular Biology, Structural basis for the inhibition of peptidoglycan glycosyltransferases by small molecules (Daniel Kahne)	Jose Maria Amich , Molecular and Cellular Biology, A functional antioxidant profile for breast cancer cells (Joan Brugge)	
Wednesday, 8/12 Room 113 Introducer: Kaitjaveet Choudhary	Eric Li , Molecular and Cellular Biology, Investigating schizophrenia candidate genes <i>in vivo</i> (Alex Schier)	Elaine Reichert , Chemistry and Physics, Optopatch screening for subtype specific modulators of the Nav1.7 channel, an emerging target in pain therapy (Adam Cohen)	Dylan Tan , Human Developmental and Regenerative Biology, Elucidating the role of EXT1 in hair follicle bulge stem cells (Ya-Chieh Hsu)	Laura Clerx , Organismic and Evolutionary Biology, Ontogenetic scaling of phloem sieve tubes in <i>Quercus rubra</i> (Noel Michelle Holbrook)	Dan Rubin , CPB, Cheese just not that into you: An interaction between two species of a cheese rind community (Rachel Dutton)	Joel Bateman , Human Developmental and Regenerative Biology, Venom-like toxins may hold the secrets to limb regeneration (Jessica Whited)	Yael Stovetzkyy , Neurobiology, Chronic early life stress and attention skills (Takao Hensch)	Lloyd Chen , Human Developmental and Regenerative Biology, Characterization of HLA-G expression in placental extravillous trophoblasts (Jack Strominger)	