

PRISE 2009 FINAL PRESENTATIONS MATRIX

PRISE Program Assistant Scheduler	MICHAEL AYOUB	EMILY FIFER	JONATHAN MAYER	CAROL SUH
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Monday, August 10, 2009

Date/Location in Science Center	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 216 Introducer: Jonathan Mayer	Prajakta Jaju , CPB, Using human embryonic stem cells to model Spinal Muscular Atrophy (Kevin Eggan)	Michael Mi , Statistics, An evaluation of improvements on the sequential parallel comparison design (Rebecca Betensky)	Timothy Maher , CPB, 2D peptidomics: An in-depth approach for profiling bioactive peptides in vivo (Alan Saghatelian)	Glyvolner Gabriel , Biomedical Engineering, An increase in learning rate as a possible explanation for savings observed in visuomotor adaptation (Maurice Smith)	Gerald Tiu , CPB, Discovery of biologically active small molecules via <i>in vitro</i> selection of a DNA-templated macrocycle library (David Liu)	Kate Xie , Neurobiology, Teaching self-restraint: Steps towards neuroimaging in awake and behaving rats (Bence Olveczky)	Taylor Freret , CPB, <i>Trichomonas vaginalis</i> virus: A little-studied virus with a BIG impact (Max Nibert)	Matthew Tung , CPB, Getting off on the right foot: An investigation of the GET protein complex (Vlad Denic)
Monday, 8/10 Room 221 Introducer: Emily Fifer	Eshwan Ramudu , Engineering Sciences, Analysis of the correlations between atmospheric boundary layer moist static energy and temperatures in the free troposphere (Zhiming Kuang)	Danielle Streifthau , Engineering Sciences, Recognizing and treating fungal growth in cultural heritage items (Ralph Mitchell)	Mimmie Kwong , Neurobiology, Can you hear me now?: The effect of early auditory environment on perception and the cortical representation of sounds (Takao Hensch)	Alicia Cowley , Neurobiology, Characterization and identification of a midbrain dopaminergic neuron reporter (Chad Cowan)	Belinda Wang , MCB, <i>In vivo</i> characterization of PDI interaction partners (Tom Rapoport)	Namrata Baral , Undeclared, Investigating the effect of change in the Hippo pathway on mitosis and the development of cleavage furrow (Joan S. Brugge)	Daniel Oh , Chemistry, Probing and quantifying biofilm formation on self-assembled monolayers of functional thiols (Joanna Aizenberg)	Kimberly Murdaugh , Chemistry, A cell model for studying CGRP metabolism (Alan Saghatelian)
Monday, 8/10 Room 222 Introducer: Michael Ayoub	Kristen Hunter , Undeclared, Investigating Supernova 1987A's circumstellar ring (Robert Kirshner)	Zachary Abel , Mathematics/Computer Science, Lattice cryptography: Complexity considerations (Salil Vadhan)	Andres Camacho , Literature, Lkb1, Hematopoiesis and B-cell maturation (Nabeel Bardeesy)	George Xu , Biomedical Engineering, Programming cells by multiplex genome engineering and accelerated evolution (George Church)	Rupak Chakraborty , Physics, Energy transport in photosynthetic complexes	Ethan Kruse , Astrophysics, Magnetic variability in small stars (Edo Berger)	Dennis Sun , Music and Math, A statistical approach to protein folding (Jun Liu)	Samuel Enumah , Neurobiology, HIV infection in the brain (Margaret Lentz)
Monday, 8/10 Room 309 Introducer: Carol Suh	Zuri Sullivan , MCB, Investigating the effects of HIV infection on cellular processing machinery (Sylvie Le Gall)	Konstantin Pozin , Computer Science, The evolution of group solidarity (Stuart Shieber)	David Levary , Physics, Mathematical modeling of drug delivery to tumors (Dane Wittrup)	Michael Wu , MCB, Microtubule-based cargo transport in <i>Aspergillus nidulans</i> (Samara Reck-Peterson)	Jenny X. Chen , CPB, Reprogramming satellite stem cells into cardiac progenitors (Sean Wu)	Stefan Andrei Anghel , MCB, Go back where you came from! Solving the mystery of how proteins are translocated from the Endoplasmic Reticulum into the Cytosol (Tom Rapoport)	Wendy Ying , MCB, Derivation of engraftable skeletal muscle progenitors from mouse embryonic stem cells (Amy Wagers)	David Rosengarten , Physics/Mathematics, A finite square well approximation to the multi-state Sommerfeld enhancement of dark matter annihilation (Douglas Finkbeiner)
Monday, 8/10 Room 309A Introducer: Nora Sluzas	Justin Koh , Chemistry, Paper-based DNA gel electrophoresis for genetic diagnostics in developing nations (George Whitesides)	Gosia Dymerska , Undeclared, Constructing light-switchable display and communication in <i>Saccharomyces cerevisiae</i> (Alain Viel)	Xiaoqi Zhu , Applied Mathematics with Economics, Position auctions for internet advertisements with score uncertainty (Susan Athey)	Ameya Velingker , Mathematics/Physics, On the representation theory of Lie algebras (Joe Harris)	Tim Hsieh , Physics and Math, Tweak the beak: understanding the transformations relating finch beaks (Michael Brenner)	Nick Bodnar , CPB, Effects of chemical environment on PDZ domain activity (Gavin MacBeath)	Kailan Sierra-Davidson , MCB, Characterizing HLA association in HIV elite controllers (Bruce Walker)	Jeremy Feng , Undeclared, Creating a humanized mouse model of type 1 diabetes. (Douglas Melton)

Tuesday, August 11, 2009

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Tuesday, 8/11 Room 216 Introducer: Jonathan Mayer	Ivan Bochkov , CPB, Constructing light-switchable display and communication in <i>Saccharomyces cerevisiae</i> (Alain Viel)	David Gootenberg , CPB, Characterization of a J5-specific T-cell line (Jack L. Strominger)	Judith Kim , MCB, Determining the pathway for Lkb1 regulation of hematopoiesis (Nabeel Bardeesy)	Adriana Mujal , MCB, Reparative processes in tissue and immune-based injuries (Ulrich von Andrian)	Mike Teodorescu , Computer Science, Swarming algorithms (David Malan)	Kunal Raygor , Neurobiology, Analyzing UBQLN1-mediated neurodegeneration and the role of DACH1 overexpression on APP processing (Rudy Tanzi)	Ryan Fitzgerald , Chemistry, detecting novel protein-receptor interactions in diabetes pathogenesis (Alan Saghatelian)	Maria Xu , Undecided, Engineering macroporus alginate scaffolds (David J. Mooney)
Tuesday, 8/11 Room 221 Introducer: Emily Fifer	Philip Mocz , Mathematics/ Astrophysics, A Search for X-Ray Winds and Strong Gravity Around a Supermassive Black Hole In A Distant Galaxy (Julia Lee)	John Zhao , CPB, Regulation of the fanconi anemia pathway by microRNAs (Alan D'Andrea)	Vijay Jain , Chemistry and Physics; Magnetic nanostructures in heterogeneous catalysis (Prof. Adam E Cohen)	Peter Hung , Undecided, Inability to learn two conflicting motor tasks even when aided by contextual cues (Maurice Smith)	Tzu-Ying Chuang , CPB, Sortase: The power of site-specific transpeptidation (Hidde Ploegh)	Jeremy Hsu , OEB, Examining the genetic basis of migratory behavior in Monarch butterflies (Marcus Kronforst)	Frances Wu , MCB Indirect regulation of gene expression by RsmA through intermediate transcription factors in <i>Pseudomonas aeruginosa</i> (Stephen Lory)	Daphne Xiao , Chemistry, Palladium-catalyzed ligand-directed C-H bond functionalization (Tobias Ritter)
Tuesday, 8/11 Room 222 Introducer: Michael Ayoub	Senan Ebrahim , Neurobiology, Transcription factors as critical controls of corticothalamic projection neuron development (Jeffrey Macklis)	Elizabeth Zhang , Neurobiology, Development of tonotopic organization in the mouse auditory cortex (Takao Hensch)	Laura Starkston , Mathematics, An introduction to knot theory and khovanov homology (Peter Kronheimer)	Kenneth Gottlieb , Physics, Characterization of water vapor variability for astrophotometric calibration (Chris Stubbs)	James Colombe , Chemistry, Oxazaborolidine-catalyzed diels-alder reactions of aromatic compounds (E. J. Corey)	Carla Upperman , Neurobiology, TNF α production in cell death (Junying Yuan)	Chanati Jantrachotechatchawan , MCB, Projection neurons and interneurons interaction during cortical development in Fezf2 null-mutant mice model (Paola Arlotta)	Nworah Ayogu , Neurobiology, Usage of an oncolytic herpes simplex virus in dendritic cell vaccination against malignant glioma (Samuel Rabkin)
Tuesday, 8/11 Room 309 Introducer: Carol Suh	Christine Li , ESPP, Saving 'Private Pig' (Hasan Alam)	Christopher Chang , Computer Science, 3D stereoscopic special effects (Hanspeter Pfister)	Katie Sierks , Environmental Engineering Limitations on methane emissions from terrestrial wetlands (Dan Schrag)	Jen Gong , Applied Mathematics, Opposing levels of evolutionary selection: plasmid replication and cell competition (Professor Johan Paulsson)	Diana Robles , MCB, TopBP1 and activation of the DNA replication checkpoint in <i>Xenopus laevis</i> (Matthew Michael)	Nicolas Lewine , MCB, Characterization of an HIV clinical isolate with high-level resistance to small molecule CCR5 antagonists (Daniel Kuritzkes)	Hao Sun , MCB, Mapping antibody Agr86 (Joshua Sanes)	Janie Yue Zhang , MCB, Functional screening of microRNA mimic and inhibitor libraries to identify repressors of mTORC1 signaling in a cell-based model of PTEN-null prostate cancer (John Blenis)
Tuesday, 8/11 Room 309A Introducer: Scott Kominers	Jimmy Hom , MCB, Programming pluripotent and multipotent stem cells into adipocytes (Chad Cowan)	Fernando Racimo , OEB, Replaying life's tape in a microcosm: massive parallel evolution in <i>Pseudomonas fluorescens</i> (Kevin Foster)	Natalie Cameron , Psychology, Rockabye baby: The therapeutic components of music for newborn infants undergoing painful procedures (Mark J. Tramo)	Tomi Lanre-Amos , MCB, A molecular characterization of the pancreatic mesenchyme during embryonic development (Douglas Melton)	Dammy Akinfenwa , Engineering Sciences, Investigating the assumptions of generalizations (Maurice Smith)	Laura Huppert , MCB, Exploring the role of the Yuk Proteins in <i>Bacillus subtilis</i> as a potential Type VII Protein Secretion System. (Briana Burton)	Sarah Schlegel , OEB, An investigation of pathways involved with neuroregeneration: A study of the mTOR Pathway (Zhang He)	Hyunje Cho , MCB, The role of microRNA in T-helper 17 cell (Th17) plasticity (Vijay Kuchroo)

Wednesday, August 12, 2009

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Wednesday, 8/12 Room 216 Introducer: Jonathan Mayer	Sana Raouf , Biophysics, B lymphocyte evolution in the germinal center reaction (Eugene Shakhnovich)	Christopher Hollyday , Chemistry, Identity theft: reprogramming hepatocytes to pancreatic beta cells as a potential therapy for diabetes (Doug Melton)	Lulu Tsao , Undecided, Bacterial persistence: genetics of antibiotic tolerance in <i>Mycobacterium smegmatis</i> (Deb Hung)	Sam Michel , MCB, Use of alginate hydrogels to direct dendritic cell fate towards antigen specific tolerance (David Mooney)	Kevin Shee , MCB, Engineering a mammalian gene memory loop (Pam Silver)	Eva Gillis-Buck , HDRB, Molecular controls over callosal projection neuron development and subtype specificity (Jeffrey Macklis)	Chen (Amy) Chen , HDRB, mTert-GFP mice as a novel model for the isolation and identification of intestinal stem cells (David Breault)	Judy Fan , Neurobiology/MBB, Intrinsic noise in cognition: motion effects on the representation of object location (George Alvarez)
Wednesday, 8/12 Room 221 Introducer: Emily Fifer	Krzysztof Kozak , OEB, Tales of the tails: evolution of tail length variation in the deer mouse <i>Peromyscus maniculatus</i> (Hopi Hoekstra)	Lauren T. Brown , Neurobiology, Preclinical engraftment of GABAergic neurons (Miles Cunningham)	Daniel Bear , MCB, Assessing neuronal activity-dependent transcription with single-cell resolution. (Michael Greenberg)	Nan Du , Biomedical Engineering, Spatial guidance of <i>in vitro</i> angiogenesis via induction of pH gradient (David Mooney)	Chiamaka Nwakeze , Neurobiology/MBB, Imaging neuronal metabolism (Gary Yellen)	Joanna Li , Undecided, Neurochemical and behavioral effects of postnatal maternal separation in mice: a model of early life adversity (Takao Hensch/Michela Fagiolini)	Denise Xu , Neurobiology, No pain, no gain: The neuroimmune response in the spinal cord after peripheral nerve injury (Clifford Woolf/Joachim Scholz)	Ernest E. Fontes , Mathematics, Cobordism and homotopy theory (Michael J. Hopkins)
Wednesday, 8/12 Room 222 Introducer: Michael Ayoub	Erica Tsacoyeanes , Neurobiology and Chemistry, From bench to bedside: A multidimensional approach to pediatric medicine (Scott Pomeroy)	Sarah Shareef , Undecided, Designing a scaffold-based vaccine for breast cancer (David Mooney)	Maia Anderson , MCB, Validating RNAi screen hits for new spindle checkpoint components (Randall King)	Yang Gao , Engineering Sciences, Explore urban-scale wireless network monitoring with CitySense (Matt Welsh)	Isha Jain , CPB, Circadian transcriptome analysis in cyanobacteria (Erin O'Shea)	Brandon Hopkins , Physics and Mechanical Engineering, Novel interface for microfluidic chip (Robert Westervelt)	Evelyn Park , Biomedical Engineering, Developing a tool for assessing mitral annulus properties <i>in vivo</i> (Robert Howe/Samuel Kesner)	
Wednesday, 8/12 Room 309 Introducer: Carol Suh	Vernon Wu , MCB, Peripheral to decidual: T cell differentiation (Jack Strominger)	Jonathan Bragg , Computer Science and Music, From MIDI to cycles: Analyzing the music of Franz Schubert (Elaine Chew and Stuart Shieber)	Eduardo Perez , MCB, Using retinoic acid in the differentiation of A9 dopamine-producing neurons (Ole Isacson)	Bilal Siddiqui , MCB, Mechanisms of epigenetic regulation: Controlling Polycomb group (PcG) proteins through mitosis (Nicole Francis)	Koning Shen , CPB, Life at the origin: Structural studies of nucleo-protein assemblies at bacteriophage lambda origin of replication (David Jeruzalmi and Andres Leschziner)	Josh Zagorsky , Chemistry, Nanoporous platinum as a glucose fuel cell anode (Michael Aziz)	Joe Shivers , CPB, Overstretching DNA in ionic solution (Mara Prentiss)	Nico Hawley-Weld , Mechanical engineering, swarming behavior in vibrating bristle-bots (L. Mahadevan)
Wednesday, 8/12 Room 309A Introducer: Scott Kominers	Yi Liu , CPB, Structural studies of the C-terminal domain of the O protein in bacteriophage lambda (David Jeruzalmi)	Kyle Chauvin , Applied Mathematics, Savings glut or irrational bubble? (David Laibson)	Jennifer Goodhart , Chemistry, Search for small molecule inhibitors of histone demethylase Jmjd2C (Stuart Schreiber)	Victoria Hung , Chemistry, Analyzing gene essentiality in the capsular polysaccharide pathway in <i>Streptococcus pneumoniae</i> D39 (Suzanne Walker)	Geoffrey Smith , Chemistry, Using and mimicking biology: Enzymatic and organocatalytic progress towards the asymmetric synthesis of bis(phenylthio)cyclohexane (EJ Corey)	Ao Allan Fan , Applied Mathematics, The dynamics of bubbles (Lakshminarayanan Mahadevan)	Lucien Weiss , Chemistry & EPS, Tavuk yumurtasından bir kor şişlendi: Interfacing cultured cardiomyocytes with silicon nanowire field effect transistors (Charles M Lieber)	