PRISE 2017 -- FINAL PRESENTATION SCHEDULING MATRIX

Monday, August 7, 2017

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
Monday, 8/7 Room 104 Introducer: Jacob Scherba	**Jessica Huang,** Computer Science, Theory vs. implementation: Altered functional connectivity in the blind primary visual cortex (Ella Striem-Amit)	**Benjamin Senzer,** Molecular and Cellular Biology, The role of the MAPK pathway in timing H3K9me2 in *C. elegans* early embryogenesis (Susan Mango)	**Calvin Marambo,** Bioengineering (SB), Hydrogels for delivery of ultra-high concentrations of antibiotics in burn wounds (David Mooney)	**Amy Hao**, Molecular and Cellular Biology, Characterizing the role of IdsE *in vivo* in populations of *Proteus mirabilis* (Karine Gibbs)	**Lyra Wanzer,** Mechanical Engineering, Actuated tail for Harvard Ambulatory MicroRobot (Robert Wood)	**Diondra Dilworth**, Chemistry, Efficient syntheses of methyltransferase inhibitors: Concise, gram-scale synthesis of sinefungin (Matthew Shair)	**Jed Johnson,** Physics, Angular dependence in junction tunneling of thin film BSCCO (Philip Kim)
Monday, 8/7 Room 105 Introducer: Ellen Zhang	**Michele Tienni,** Mathematics/Physics, Magneto-optical trapping of CaF with high density (John Doyle)	**Jackson Allen**, Molecular and Cellular Biology, Genome-editing using zinc-finger proteins (Keith Joung)	**Emily Tiberi**, Physics/Mathematics, Development of precision atom translation in the Erbium Microscope (Markus Greiner)	**Willa Li,** Chemical and Physical Biology, The kinetics of dynamic BH3 profiling: Measuring cancer cell censitivity to apoptosis (Anthony Letai)	**Michael Xie,** Chemistry and Physics, Image registration for *in vivo* voltage imaging in awake behaving mice (Yoav Adam, Simon Kheifets, Adam Cohen)	**Brad Riew,** Psychology, The corticogeniculate visual pathway in the mouse: A partial reconstruction (Jeff Lichtman)	**Disha Trivedi**, Chemical and Physical Biology, Programming commensalistic gut bacteria to be living diagnostics of inflammatory bowel disease (Pamela Silver)
Monday, 8/7 Room 109 Introducer: Ben Sorscher	**Gha Young Lee**, Chemistry and Physics, Nanosensors for coronary artery disease detection (Omid Farokhzad)	**Constantin Arnscheidt**, Physics, A STIRAP laser system for the ground-state molecular assembly of NaCs (Kang-Kuen Ni)	**Maria Park**, Integrative Biology, Effects of water status on phloem loading and leaf turgor in *Quercus rubra* (Noel Holbrook)	**Shreya Menon,** Mathematics, Investigating the molecular basis for infertility associated with abnormality in a novel candidate gene, SYCP2 (Cynthia Morton)	**Julia Huesa,** Molecular and Cellular Biology, Inferring HIV-1C Transmission Networks in Botswana Using Next-Generation Sequencing (NGS) of Near Full-Length Viral Genome (Max Essex)	**Fowsia Warsame,** Molecular and Cellular Biology, Genetic determinants of central precocious puberty (Ursula Kaiser)	**Rebecca Greenberg,** Integrative Biology, Cooperative burrowing in *Peromyscus polionotus* (Hopi Hoekstra)
Monday, 8/7 Room 110 Introducer: Chris Li	**Nisarga Paul,** Mathematics/Physics, Quantum diffusion (Ariel Amir)	**Jeongmin Lee,** Chemistry, Role of noncoding RNA on chemo-resistant cancer cells (Shobha Vasudevan)	**Kira Brenner,** Neurobiology, Exploring pathogenic cascades of Alzheimer's Disease using 3D human neural cell culture models (Rudolph Tanzi, Doo Yeon Kim)	**Pradeep Niroula,** Physics, Realization of a scalable room-temperature quantum simulator (Mikhail Lukin)	**Sofia Kennedy**, Molecular and Cellular Biology, A shotgun approach to creating ORF libraries for bacterial perturbation (Deb Hung)	**Hunter Merryman,** Earth and Planetary Science, Diamond microscopy and paleomagnetism (Roger Fu)	**Maya Miklos,** Physics, Searching for stellar surface activity in solar spectra (Ronald Walsworth)
Monday, 8/7 Room 112 Introducer: Jaina Lane	**Duncan Rheingans-Yoo,** Computer Science/Mathematics, Embracing Uber driver heterogeneity (David Parkes, Scott Kominers)	**Morgan Buchanan,** Human Developmental and Regenerative Biology, The role of Mkrn3 in the control and mechanism of puberty initiation (Ursula Kaiser)	**Siavash Zamirpour,** Chemistry, Detecting viral pathogens in cases of encephalitis (Anne Piantadosi, Pardis Sabeti)	**Christopher Johnny,** Chemistry, Single cell ribosome profiling as a means to understand translation (Brian Liau)	**Cal Miller,** Physics, Instrumentation for magnetic resonance force microscopy (Ye Tao)	**Harry Newman-Plotnick**, Neurobiology, Biological and computational investigations of the effect of transcranial random noise stimulation on numerosity (George Alvarez)	**Timothy O'Meara**, Chemistry, Testing drug therapies for tauopathy in a transgenic *Drosophila* model (James Walker)
Monday, 8/7 Room 113 Introducer: Rachel Oshiro	**Mark Czeisler,** Neurobiology, 3-dimensional reconstruction of the human brain clock connectome (Jeff Lichtman)	**Hanson Tam,** Molecular and Cellular Biology, Identification of factors for peroxisomal membrane protein turnover (Vlad Denic)	**Jeff Naftaly;** Chemical and Physical Biology, Discovery and characterization of histone O-GlcNAcylation sites (Christina Woo)	**Eshaan Patheria**, Chemistry and Physics, Characterizing optoelectronic properties of single layer WSe2 obtained via gold mediated exfoliation (Philip Kim)	**Irla Belli**, Neurobiology, SIRP alpha (Beth Stevens)	**Tejal Patwardhan**, Statistics, Cracking our code: a method to systematically map the regulatory genome (Eric Lander)	**David Yang,** Statistics/Organismic and Evolutionary Biology, Functional motif discovery in massively parallel reporter assay of untranslated region (Dustin Griesemer, James Xue, Pardis Sabeti)

Tuesday, August 8, 2017

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Tuesday, 8/8 Room 104 Introducer: Jacob Scherba	**Ellie Bernstein**, Chemical and Physical Biology, Optimizing detection of a novel biomarker for CTE and other neurodegenerative diseases (Kun Ping Lu)	**Emi Gonzalez,** Molecular and Cellular Biology, Cardiomyocyte cell cycle dynamics with multiple stable isotope pulse labeling and clonal analysis (Richard Lee)	**Ana Olano**, Physics, Metal-Mediated exfoliation of 2D layered materials to obtain large area monolayers (Philip Kim)	**Trevor Chistolini**, Chemistry and Physics/Philosophy, Preparation and characterization of atomically flat, singly-terminated SrTiO3 (Jennifer Hoffman)	**Tina Huang,** Chemical and Physical Biology, Characterization of VPS37A and TMEM41B in Mammalian Autophagy (Vlad Denic)	**Maria Brouard,** Chemistry/Biomedical Engineering, Development of new drug and chemical linking strategies for antibody drug conjugates (Christina Woo)	**Apoorva Rangan,** Human Developmental and Regenerative Biology, Identifying small molecule promoters of muscle engraftment using a zebrafish transplantation assay (Amy Wagers)
Tuesday, 8/8 Room 105 Introducer: Ellen Zhang	**Daniel Ragheb,** Neurobiology/Government, Degradation of perineuronal nets leads to increased plasticity and higher learning (Takao Hensch)	**Vivian Wan,** Human Developmental and Regenerative Biology, Investigating the mechanism of the ALS-associated gene mutation in C9orf72 (Kevin Eggan)	**Drew Pendergrass,** Applied Mathematics, Predicting extreme smog events in Beijing (Daniel Jacob)	**Iulianna Taritsa**, Biomedical Engineering, Decellularization of embryonic organ (AGM) in mice for hematopoietic stem cell formation (Dhvanit Shah)	**Andrew Torpey**, Chemistry, Autotitration as a project-based learning opportunity (Alan Aspuru-Guzik)	**Reggie St. Louis**, Bioengineering (SB), A 3D printed bioreactor for inexpensive bioproduction optimization (Neel Joshi)	**Emma Clerx,** Human Evolutionary Biology, How long until truly gluten free?: A timeline for acquisition of self-management skills in adults with celiac disease (Daniel Leffler)
Tuesday, 8/8 Room 109 Introducer: Ben Sorscher	**Kevin Loughlin,** Computer Science, Securing smartphone apps using hardware-only isolation primitives (James Mickens)	**Katherine Ho,** Chemistry, The Origin of Life: Chemical synthesis of alternative nucleotides (Jack Szostak)	**Wyatt Mackey,** Mathematics, 3263 more conics than you ever wanted to see (Joe Harris)	**Francesca Cornero,** Integrative Biology, Overconservation in grey parrots (Irene M. Pepperberg)	**Meena Jagadeesan,** Computer Science/Mathematics, Simple analysis of sparse, sign-consistent JL (Jelani Nelson)	**Menaka Narayanan**, Computer Science, A metric for interpretability in ML models (Finale Doshi-Velez)	**Gita Abhiraman**, Molecular and Cellular Biology, Design of a new cancer model system to map the travel histories of tumor-infiltrating cells (Stephanie Dougan)
Tuesday, 8/8 Room 110 Introducer: Chris LI	**Seniha Ipekci,** Neurobiology, Whole brain activity mapping of early onset schizophrenia and epilepsy (Alex Schier)	**Aurora Sullivan,** Molecular and Cellular Biology, CC-885 mediated GSPT1 degradation in murine cells (Benjamin Ebert)	**Niamh Mulholland,** Electrical Engineering, Characterising Minerva: An integrated circuit enabling low-power, highly-accurate deep neural network accelerators (Gu Yeon Wei)	**Noah Golowich**, Mathematics and Computer Science, On generalization and capacity control in deep networks (Tomaso Poggio, Alexander Rakhlin)	**Niket Gowravaram,** Effects of Let-7 on synapse morphology and plasticity (David Van Vactor)	**Olivia Velasquez,** Organismic and Evolutionary Biology, Microbiome-level effects on atrazine resistance in *Nasonia vitripennis* (Robert Brucker)	**Neha Reddy,** Molecular and Cellular Biology, Identification and characterization of an *rrf-1* mutation and impacts on RNA interference (RNAi) (Craig Hunter)
Tuesday, 8/8 Room 112 Introducer: Jaina Lane	**Rebekah Chun,** Biomedical Engineering, The role of mechanotransduction in cancer stem cell behavior: cell encapsulation in tunable hydrogels (David Mooney)	**William Cho,** Biomedical Engineering, Combination therapy of an oncolytic herpes simplex virus and a DNA-PKcs inihibitor in glioblastoma cells (Robert Martuza)	**Claire Rushin,** Human Evolutionary Biology, The effects of bariatric surgery on bone (Elaine Yu)	**Sophia Lee,** Molecular and Cellular Biology, Requirments for NK cell activation using a skin transplantation model (Shawn Demehri)	**Joy Li,** Visual and Environmental Studies, The effects of substance P blockade on dry eye disease (Reza Dana)	**Michael Dybala**, Integrative Biology, Quantitative analysis of epigenetic modifications in immune cells following exposure to *Mycobacterium bovis* in humans (Denise Faustman)	**Reuben Stern,** Mathematics, Lines on hypersurfaces and other enumerative problems (Joseph Harris)
Tuesday, 8/8 Room 113 Introducer: Rachel Oshiro	**Danielle Frostig** Astrophysics and Physics, Giant Magellan telescope active optics tests (Brian McLeod)	**Or Eisenberg**, Mathematics, Perfect state transfer, equitable partitions, and cycles with potential (Shing-Tung Yau)	**Jacqueline Epstein**, Human Evolutionary Biology, Effects of parental socioeconomic status on the profile of Borderline Personality Disorder (Lois Choi-Kain)	**Dylan Wile,** Human Evolutionary Biology, Carbohydrate restriction and its effect on glycemic control in insulin-dependent diabetes mellitus (Belinda Lennerz)	**Jiafeng Chen,** Applied Mathematics, Registered member only: Admission fees in auctions (Scott Duke Kominers)	**William Bryk,** Physics/Computer Science, Improving two-legged walking gait with centroidal dynamics approach (Scott Kuindersma)	**Saloni Vishwakarma**, Neurobiology, Therapeutic efficacy of engineered stem cells (Khalid Shah)

Wednesday, August 9, 2017

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Wednesday, 8/9 Room 104 Introducer: Jacob Scherba	**Emma Nicholls,** Biochemistry, Signalling pathway interactions in basal cell carcinoma (Fernando Camargo)	**Kelvin Wu,** Biochemistry, Biosynthesis of L-2,3-diaminopropionic acid with AlaAB (Emily Balskus)	**Stephen Leonard,** Medicine, Metabolic reprogramming of FoxP3 deficient regulatory T cells (Talal Chatila)	**Lance Johnson,** Neurobiology, Social dominance influences competitive foraging in mice (Ziv Williams)	**Alex Kelser,** Physics. Imaging electron flow in graphene (Robert Westervelt)	**Ethan Alley**, Integrative Biology, A strategy for engineering temperature-inducible proteins applied to dCas9 (George Church)	
Wednesday, 8/9 Room 105 Introducer: Ellen Zhang	**Richard Wang,** Neurobiology, Identifying genes that inhibit axon regeneration in crushed optic nerves (Zhigang He)	**Waverley He,** Neurobiology, Characterizing the morphology and interactions of microglia in the developing cerebellum (Jeff Lichtman)	**Spencer Hallyburton,** Physics, Multistatic imaging radar for standoff concealed threat detection (William Moulder)	**Alyyah Malick,** Chemical and Physical Biology, Pressure Overload-Induced Cardiac Remodeling is a Systemic Issue (Richard Lee)	**Anna Henricks,** Human Developmental and Regenerative Biology, A Developmental Role for kazald1 in Axolotls (Jessica Whited)	**Liz Roux,** Integrative Biology, Integrative pathophysiologic associations of cerebral autoregulation, vasoreactivity, and neurovascular coupling in post-concussion patients (Can Ozan Tan)	
Wednesday, 8/9 Room 109 Introducer: Ben Sorscher	**Abijith Krishnan,** Physics and Mathematics, A characterization of the 2D ising model phase transition with deep learning (Ashvin Vishwanath)	**Tyler LeComer**, Neurobiology, Effects of Maternal immune activation on mouse cortical development (Maria Lehtinen)	**Katie Vincent,** Psychology, Sweating it?: Physiological response to fear in infants (Charles Nelson)	**Ankit Chadha,** Medicine, Learning in the rodent visual cortex (David Cox)	**Hyeon-Jae Seo,** Chemistry/Computer Science, Optimized production of antimicrobial peptides using *E. Coli* curli nanofibers (Neel Joshi)	**Will Dorrell,** Physics, Mapping the odourant response space of the nematode worm Caenorhadbitis elegans (Aravinthan Samuel)	
Wednesday, 8/9 Room 110 Introducer: Chris Li	**Ruoxi (Michelle) Chen,** Applied Mathematics, Incorporating mechanical interactions into the Cellular Potts Model (Chris Rycroft)	**Annelie Herrmann**, Integrative Biology, Sexual dimorphism as interspecific differentiation of *Anolis sagrei* (Jonathan Losos)	**Serena Hoost,** Molecular and Cellular Biology, Bacterial outer membrane synthesis and antibiotic combination therapy (Daniel Kahne)	**Ju Hyun Lee,** Chemistry, Developing biocompatible polymer electrodes to grow plants in the dark (Kelsey Sakimoto, Daniel Nocera)	**Anna Biggs,** Physics, Exhibiting proximity-induced ferromagnetism and spin-orbit coupling in graphene with the anomalous Hall effect (Amir Yacoby, Di Wei)	**Dalton Brunson,** Human Developmental and Regenerative Biology, Nitroreductase mediated immune cell lineage ablation (David Langenau, Chuan Yan)	
Wednesday, 8/9 Room 112 Introducer: Jaina Lane	**Abhishek Anand**, Physics/Computer Science, Designing a self-shielding solenoid system with low field region for the Lepton CPT Experiment (Gerald Gabrielse)	**Sean Gibney**, Molecular and Cellular Biology, Investigating the role of lymphocyte activation gene 3 in transplant outcomes (Alessandro Alessandrini)	**Nadine Khoury**, Bioengineering, CRISPR Cas9 depletion of abundant human background for sequencing infectious pathogens (Pardis Sabeti)	**Andrew Gordon**, Mathematics, Linearization: A cheap tactic for making weak proofs stronger (Joseph Harris)	**Juliet Kim**, Human Developmental and Regenerative Biology, Investigating neoblast niche markers in *Hofstenia miamia* (Mansi Srivastava)	**Gabriela Berner,** Applied Mathematics, Overcoming die swell to decrease hyaluronic acid nanofiber diameter variability (Kevin Kit Parker)	
Wednesday, 8/9 Room 113 Introducer: Rachel Oshiro	**Norma Hylton,** Neurobiology, Evaluating complementary alternative medicines for the treatment of major depressive disorder (Stephen Haggarty)	**Vaibhav Mohanty**, Chemistry and Physics, Validity of the adiabatic Born-Oppenheimer Approximation in the Tight-Binding Model of graphene (Eric J. Heller)	**Casey Zhang,** Applied Mathematics, Computational and structural investigation of conformational changes in Nramp family proteins (Rachelle Gaudet)	**Mirac Suzgun,** Computer Science/Mathematics, Automated scholarly editor: Generating a provisional critical edition of a text using a new edit-distance metric for documents (Stuart M Shieber)	**Abhishek Patel,** Natural Sciences, Molecular mechanisms of circadian clocks: Structural analysis of the mammalian NuPER complex (Charles Weitz)		