PRISE 2019 -- FINAL PRESENTATION SCHEDULING MATRIX

Monday, August 12, 2019

Date/Location in Vanserg Hall	3:00pm-3:18pm	3:20pm-3:38pm	3:40pm-3:58pm	4:00pm-4:18pm	4:20pm-4:38pm	4:40pm-4:58pm	5:00-5:18pm
Monday, 8/12 Room 210 Introducer: Charlie Colt-Simonds	**Stanley Dale**, Medicine, FACS and furious: designing cells which evade the immune system (Douglas Melton)	**Hannah Horton**, Natural Sciences, Cell sorting procedures for use in the directed evolution of biosensors (Adam Cohen)	**Xiadi Zhai**, Chemistry, Understanding atomistic details of HemK-NTD co-translational folding (Eugene Shakhnovich)	**Poppy Boyd-Taylor**, Natural Sciences, Designing new soft robotic motions (Katia Bertoldio)	**Rachel Chen**, History and Science, 3D Reconstruction of the Elephant Ear: Towards development of finite element models (Sunil Puria)	**Alex-Maree Roberts**, MCB, Obtaining pure recombinant Ndufaf2 to investigate its effects on Complex I activity (Matthew LaVoie)	
Monday, 8/12 Room 211 Introducer: Gabriela Escalante	**Annie Wang**, HDRB, Exercise-induced cardiac remodeling in aged mice (Richard Lee)	**Ilona Demler**, Physics, Optical dipole transport system with active temperature control routine for ultracold molecular reactions (Kang-Kuen Ni)	**Yash Nair**, Mathematics and Computer Science, Approximate learning and planning algorithms for predictive state representations with uncertainty (Finale Doshi-Velez)	**Unice Yoo**, CPB, Determining metal selectivity imparted by variations in the Nramp metal-binding site (Rachelle Gaudet)	**Gerard Porter**, Undeclared, Mechanistic study of catalytic C-H bond amination (Theodore Betley)	**Yemile Bazaldua Flores**, HEB, The effects of the R4 regulatory enhancer of the Gdf5 gene on the development of osteoarthritis in mice (Terence Capellini)	**Hana Kiros**, Neuroscience, Developing a universal off-target detection method for CRISPR nucleases and base editors (Keith Joung)
Monday, 8/12 Room 213 Introducer: Abijith Krishnan	**Amal Mattoo**, Mathematics, The Euler characteristics of Hilbert schemes via colored Young Diagrams (Joseph Harris)	**Ken Zou**, HDRB, Sox9 expression following tendon injury in *Mus musculus* (Jenna Galloway)	**Femke Ahlers**, Biochemistry, Structural determination of clade B Nramp transporters (Rachelle Gaudet)	**Konrad Urban**, Computer Science, A software application for the automated analysis of behavior (Venkatesh Murthy)	**Matthew Tyler**, Mathematics, The Okounkov-Vershik approach to the representation theory of the symmetric group (Arnav Tripathy)	**Camilo Castellanos Sanchez**, Physics, Loving Innolume Lasers: Creation and optimization of a stable laser system to study ultra cold chemisty (Kang-Kuen Ni)	**Ashlie Malone**, MCB, The role of Wnt gatekeeper SFRP4 in the maintenance of periosteal stem cells and progenitors (Francesca Gori)
Monday, 8/12 Room 214 Introducer: Betty Lulseged	**Michael Isakov**, Mathematics and Statistics, The origin of Celtic languages: Exploring British history with ancient DNA (David Reich, Nick Patterson)	**Jozef Soja**, Applied Math, Updating a clinical support tool for predicting cancer risk (Giovanni Parmigiani)	**Dan Stefan Eniceicu**, Physics, On the universal relaxation bound for higher dimensional charged black holes and the weak gravity conjecture (Matthew Reece)	**Wenjie Gong**, Physics and Math, Interface superconductivity between underdoped and overdoped La2-xSrxCuO4 (Jennifer Hoffman)	**Sarita Damaraju**, BME, Mock circulatory loop development for arterial physiological flow Mmodelling (Elazer Edelman)	**Raluca Vlad**, Mathematics and Computer Science, Galois groups of plane curves (Joseph Harris)	**Alberto Mosconi**, Mathematics and Physics, Hawking's Big Bang singularity theorem (Arnav Tripathy)
Monday, 8/12 Room 215 Introducer: Winston Michalak	**Jess Zhang**, MCB, Characterizing unexplained ceftriaxone antibiotic resistance in *Neisseria gonorrhoeae* (Yonatan Grad)	**Kevin Rao**, Computer Science, Online algorithms with machine learned advice (Michael Mitzenmacher)	**Suruchi Ramanujan**, MCB, Quantifying miRNAs in systemic lupus erythematosus (Vaishali Moulton)	**Richard Allen**, Physics and Mathematics, Coulomb drag in a carbon nanotube-graphene interface (Philip Kim)	**Andrew Sheat**, Earth and Planetary Sciences, Characterising the external magnetic field of Jupiter (Jeremy Bloxham)	**Brendan Burney**, Neuroscience, Effects of electrical signaling on embryonic patterning (Christoph Budjan)	**Elbert Du**, Mathematics, Implementing a differentially private synthetic data geneation to PSI (Salil Vadhan)
Monday, 8/12 Room 216 Introducer: Aleeza Shakeel	**Jeanna Qiu**, CPB, Genetic analysis of MreD, a conserved and essential protein for cell wall biogenesis (Thomas Bernhardt)	**Stephanie Tang**, CPB, Determining changes in TET3 protein interactome by O-GlcNAcylation (Christina Woo)	**Johanna Staples-Ager**, MCB, Back to the egg: Generation of human embryonic germ cells (Toshi Shioda)	**Matt Spence**, Neuroscience, The role of specificity in emotional memory and imagination (Daniel Schacter)	**Nishita Sinha**, Physics, Electrode design improvement for electric field-stimulated X-ray crystallography (Doeke Hekstra)	**Alexandra Zaloga**, IB, Axon guidance cues in the cephalopod *Doryteuthis pealeii* (Kristen Koenig)	**Kemi Ashing-Giwa**, IB, Characterizing the repeated evolution of forest-adapted deer mice through an analysis of museum specimens (Hopi Hoekstra)
Monday, 8/12 Room 217 Introducer: Lincoln Sorscher	**Kelechi Ukah**, Physics, Fabricating micro-lenses for nitrogen vacancy magnetometry (Amir Yacoby)	**Michael Chen**, Applied Mathematics, Identifying antibiotic resistance in tuberculosis with machine learning (Isaac Kohane)	**Gabriela Munoz**, HEB, The development and neural indices of facial emotion processing in early childhood: A study in fNIRS (Charles Nelson)	**Arpan Sarkar**, Statistics and MCB, Identifying spatially-associated subpopulations with a cell-type focused hidden Markov random field model (Guo-Cheng Yuan)	**Raphael Tsiamis**, Mathematics, Riemann-Roch theorem using Sheaves with applications to Elliptic Curves (Joe Harris)	**George Milner**, Medicine, Characterisation of chloroquine-induced itch in mice (Clifford Woolf)	**Sajawall Nawaz**, Medicine, Characterising the expression of CNTF and its receptor in ocular inflammation induce optic nerve regeneration (Larry Benowitz)

Tuesday, August 13, 2018

Date/Location in Vanserg Hall	3:00pm-3:18pm	3:20pm-3:38pm	3:40pm-3:58pm	4:00pm-4:18pm	4:20pm-4:38pm	4:40pm-4:58pm
Tuesday, 8/13 Room 210 Introducer: Charlie Colt-Simonds	**Yi Chen**, CPB, Evolutionary adaptation to an altered cell cycle regulation linked to genetic instability (Andrew Murray)	**Abdul Saleh**, Computer Science, Hierarchical reinforcement learning for open-domain dialog (Rosalind Picard)	**Daniela Villafuerte**, Electrical Engineering, Design and optimization of Harvard ozone and Harvard water vapor instruments (Jim Anderson)	**Anna Victoria Serbin**, Neuroscience, Early postnatal stress and cognitive impairment in mice (Takao Hensch)	**Michael Scott**, Computer Science, Software analysis of *Peromyscus* mice infant vocalizations (Hopi Hoekstra)	**Emily Murdock**, Physics, CNO neutrino detection in NEXT (Roxanne Guenette)
Tuesday, 8/13 Room 211 Introducer: Gabriela Escalante	**Julia Losner**, HDRB, Exploring the intersection between scarring and fibrosis in axolotls (Jessica Whited)	**Fredericka Lucas**, Neuroscience, Investigating the role of cis P-tau in Alzheimer's disease, CTE, and pre-eclampsia (Kun Ping Lu, Xiao Zhen Zhou)	**Julia Dokko**, Chemistry, Probing field emssion electron tunneling in metal-molecule-metal junctions (George Whitesides)	**Frederick Horne**, OEB, Size scaling effects on mimicry efficacy (Paul Shamble)	**Brandon Gong**, Neuroscience, Investigating the mechanisms of adult hippocampal neurogenesis in the pathology of Alzheimer's Disease (Se Hoon Choi)	**Alyssa Klee**, MCB, Binding of the novel inhibitory receptor KIR-X to its ligand HHLA2 negatively regulates T-Cell activation (Gordon Freeman)
Tuesday, 8/13 Room 213 Introducer: Abijith Krishnan	**Lucia Gordon**, Physics and Mathematics, Probing dark matter substructures via strong gravitational lensing (Cora Dvorkin)	**Juhee Goyal**, BME, A study of 10,000 generations of evolution in yeast (Michael Desai)	**Kayla Lentz**, MCB, The role of microbial bioproducts in modulating the response of macrophages to gluten (Alessio Fasano)	**Yu (Harry) Fu**, Neuroscience, Modelling visual attention in convolutional neural networks (George Alvarez)	**Gabriela Pelayo**, HDRB, Developing functional immunoprotected hiPSC-β for type I diabetes (Douglas Melton)	**Jenny Yao**, Chemistry and Physics, Establishing a flow-enhanced model for assessing immune-mediated nephrotoxicity in kidney organoids (Jennifer Lewis)
Tuesday, 8/13 Room 214 Introducer: Betty Lulseged	**Isabella Beckett**, Neuroscience, OPCs and CS6-CSPG clusters in synaptic plasticity (Sabina Berretta)	**Luann Zerefa**, OEB, **Developmental variation in the crocodylian palate through ontogeny using geometric morphometrics (Stephanie Pierce)**	**Risa Komatsu**, Neuroscience, Understanding corticogenesis in ADHD through organoids (Kwang-soo Kim)	**Savvy Raghuvanshi**, Computer Science, Virtual machines with user-level networking (Eddie Kohler)	**Selena Zhang**, Chemistry and Environmental Engineering, Metal-organic phase-change materials for thermal energy storage and management (Jarad Mason)	**Seungil Lee**, Neuroscience, Lipid dysregulation in Parkinson's disease (Ole Isacsont)
Tuesday, 8/13 Room 215 Introducer: Winston Michalak	**Leena Hamad**, MCB, Biochemical characterization of novel diazo compounds in *Mycobacterium abscessus* (Emily Balskus)	**Rachael Han**, Neuroscience, Connectomics of inhibitory neurons (Jeff Lichtman)	**Jason Ren**, Computer Science, Prediction focused topic models (Finale Doshi-Velez)	**Kelsey Ichikawa**, Neuroscience and Philosophy, Neural correlates of latent group preferences (Mina Cikara)	**William Shen**, MCB, Selective therapeutic targetting of biliary tract cancer (Nabeel Bardeesy)	**Ayana Watkins**, HDRB, Identifying compounds that affect the survival of dopaminergic neurons (Lee Rubin)
Tuesday, 8/13 Room 216 Introducer: Aleeza Shakeel	**Karina Ascunce**, Neuroscience, Investigating neural and behavioral markers in infants at risk for ASD and language delay (Charles Nelson)	**Matthew Parsons**, MCB, Reactivity and selectivity of diazirine-containing photoaffinity labeling tags (Christina Woo)	**Bobae Johnson**, Physics, Quasiparticle exchange statistics in graphene (Philip Kim)	**Matthew Manchung Keisuke Hase-Liu**, Mathematics, Efficient point-counting algorithms for trinomial superelliptic curves (Joe Harris)	**Sonia Chen**, HDRB, Discovering early stem cell activation mechanisms driving muscle regeneration (Amy Wagers)	**Shivani Thakur**, HDRB, Using ChIP-Seq and CRISPaint to provide insights into transcriptional dysregulation in acute myeloid leukemia (Jason Buenrostro)
Tuesday, 8/13 Room 217 Introducer: Lincoln Sorscher	**Andrew Wang**, Physics and Mathematics, Molecular and spatial profiling of the single-neuron transcriptome using MERFISH imaging (Xiaowei Zhuang)	**Catherine Ho**, Neuroscience, Episodic retrieval and metacognition during problem solving (Daniel L. Schacter)	**McKenzy Wall**, MCB, Construction of antiPD1/scIL12 fusions for use in immunotherapy (Wayne Marasco)	**Katrina Gonzalez**, Physics and Electrical Engineering, An investigation of Li metal thickness and in-situ, high pressure solid state battery measurement (Xin Li)	**Victor Qin**, Electrical Engineering and Computer Science, Zeroth-order gradient optimization with multi-agent robotic algorithms (Lina Li)	**Ana Castañer**, HDRB, Dissecting the mechanism of ionocyte differentiation (Jay Rajagopal)

Wednesday, August 14, 2018

Date/Location in Vanserg Hall	3:00pm-3:18pm	3:20pm-3:38pm	3:40pm-3:58pm	4:00pm-4:18pm	4:20pm-4:38pm	4:40pm-4:58pm
Wednesday, 8/14 Room 210 Introducer: Charlie Colt-Simonds	**Thomas Biasi**, Computer Science, Denoising mice poses with machine learning (Mackenzie Mathis)	**Cliffton Wang**, CPB, Identifying a human colon cancer cell line with YAP-induced growth suppression (Fernando Camargo)	**Zev Nicolai-Scanio**, Computer Science, VolRen: A lightweight web-based volumetric data explorer (Hanspeter Pfister)	**Frances Papandile**, IB, Investigating the regulatory activity of human accelerated regions in autism patients (Chris Walsh)	**Josie Wolf**, Neuroscience, Multisensory integration in neural circuits underlying parenting behavior (Catherine Dulac)	**Siye Zhu**, Mathematics and Physics, Formalizing land titling in cities of developing countries (Edward Glaeser, Scott Kominers)
Wednesday, 8/14 Room 211 Introducer: Gabriela Escalante	**Dylan Zhou**, Physics and Computer Science, Electronic transport measurements in oxide thin films (Julia Mundy)	**Fouzia Raza**, BME, Use of biofeedback to analyze post-stroke gait biomechanics to improve device effectiveness (Connor Walsh)	**Rachel Guo**, Computer Science, Immersive sports analytics with augmented and virtual reality (Hanspeter Pfister)	**Shea Hausman**, MCB, Development of a ring chromosome to study oncogene evolution in liposarcoma (Alejandro Gutierrez)	**Nasser Marrakchi**, MCB, CRISPR-engineering of circulating tumor cells as a therapeutic strategy (Khalid Shah)	**Sreekar Mantena**, Statistics and Physics, SHERLOCK diagnostics for respiratory viruses (Pardis Sabeti)
Wednesday, 8/14 Room 213 Introducer: Abijith Krishnan	**Benjamin Velez**, MCB, Msp1 protein recognition (Vladimir Denic)	**Spencer Hurt**, Astrophysics, A search for planets orbiting the star Vega (David Latham)	**Joseph Sanchez**, Mechanical Engineering, Development of a human shoulder test rig for soft actuator characterization (Conor Walsh)	**Terzah Hill**, Neuroscience, State-dependent modulation of olfaction in larval zebrafish (Florian Engert)	**Anne Marie Crinnion**, Psychology, Using reflections to understand representational structures of different object classes (Alfonso Caramazza)	
Wednesday, 8/14 Room 214 Introducer: Betty Lulseged	**David Xiang**, Mathematics, On the non-asymptotic behavior of the least singular value of a random matrix (Madhu Sudan)	**Sarah Araten**, CPB, Eludicating the role of H3K27M in DIPGs (Brian Liau)	**Simi Ogunnowo**, HEB, The impact of birth weight and asthma on behavioral regulation in 14-year-old children (Jonathan Litt)	**Fan Zhou**, Math and Physics, Representations of the symmetric group and combinatorial species (Arnav Tripathy)	**Apurva Kanneganti**, CPB, The role of FAM1 and FAM2 in mediating gut homeostasis (Ramnik Xavier)	**Shelby Elder**, CPB, Characterizing the relationship between fatty acid-binding proteins and eicosanoid synthetic enzymes using dSTORM (Angela Schmider)
Wednesday, 8/14 Room 215 Introducer: Winston Michalak	**Howard Timlin**, Physics and Mathematics, Branched flow simulation and control (Eric Heller)	**Maria De Leon**, MCB, The effect of early life stress on social behavior of female mice (Takao Hensch)	**Maryam Hiradfar**, Physics, Creating a magneto-optical-trap of potassium atoms using a cold buffer gas beam (John Doyle)	**Keza Levine**, HDRB, Understanding differences in heritable behavior using infant vocalizations of *Peromyscus* (Hopi Hoekstra)	**Maya Burhanpurkar**, Physics, Unsupervised machine learning topological phases in an XY-Z2 Gauge model (Subir Sachdev)	**Maria Gonzalez Di Tillio**, Applied Math, The YAP pathway interprets hemodynamic forces from blood flow to signal hematopoietic stem cell fate in endothelium during embryogenesis (Wade Sugden)
Wednesday, 8/14 Room 216 Introducer: Aleeza Shakeel	**Marissa Sumathipala**, Neuroscience, Syn-Seq: Rapid, high-throughput molecular profiling of single synapses (Steven McCarroll)	**Rithvik Rao**, Computer Science and Mathematics, Incentives in proof-of-stake mining for blockchains (David Parkes)	**Amy Shi**, MCB, Targetting DNA damage-induced secreted factors for improved responses to breast cancer therapy (Stuart Calderwood)	**Comfort Abuwa**, HDRB, Genetic exploration of the 16p11.2 deletion/dupliction (Kevin Eggan)	**Radu Andrei**, Physics, Topological gapped flat bands in phononic metamaterials (Jenny Hoffman)	**Michael Shadpour**, CPB, Mechanism of amphiregulin induced modulation of muscle stem cell expansion (Amy Wagers)