MPA Molecular Psychiatry Association

2015 Molecular Psychiatry Meeting Schedule

Friday October 30th

7:45 to 9:45 AM Concurrent Session 1 Seacliff Room A+B

Monitoring and Measuring Motivational Circuits: Chair, Tom Kash, UNC and Co-Chair, Susan Ferguson, Seattle Childrens Hospital

Amygdala Circuits in Drug Abuse, Thomas Kash, UNC

The 'Ins' and 'Outs' of the Striatum: Mapping Addiction Circuits, Susan Ferguson, Seattle Childrens Hospital

What Can Movement Circuitry Tell Us About Obesity, Lex Kravitz, NIDDK

Neural Circuits Underlying Hunger, Zack Knight, UCSF

7:45 to 9:45 AM Concurrent Session 2 Seacliff Room D

Genetic Discovery and Translational Studies in Schizophrenia: Chair, Jonathan Sebat, UCSD and Co-Chair, Lilia Iakoucheva, UCSD

Insights Into Schizophrenia From Hundreds of New Genetic Associations, Stephan Ripke, Harvard

Unearthing Novel CNVs From the PGC study of Schizophrenia, Jonathan Sebat, UCSD

Transcriptional and Protein Networks Connect Genes Implicated in Psychiatric Disorders, Lilia Iakoucheva, UCSD

Modeling Predisposition to Schizophrenia Using Stem Cells, Kristen Brennand, Icahn School of Medicine at Mount Sinai

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9:45 to 10:00 AM Break

10:00 to 12:00 PM Concurrent Session 1 Seacliff Room A+B

Novel Approaches for Studying Brain Disorders: Chair, Sergiu Pasca, Stanford and Co-Chair, Ben Barres, Stanford University

At the Nano-Bio Interface: Nanoelectrodes for Improved Electrophysiology Recording, Bianxiao Cui, Stanford

Tools for Anatomical and Functional Analysis of Widely Distributed Brain Networks, Viviana Gradinaru, California Institute of Technology

What Do Astrocytes Do? Ben Barres, Stanford

Developing Cellular 3D Models of the Human Cortex, Sergiu Pasca, Stanford University

10:00 to 12:00 PM Concurrent Session 2 Seacliff Room D

Translational Imaging in Substance Use Disorders: Chair, Greg Brown, UCSD and Co-Chair, Benjamin S. McKenna, UCSD

Introduction, Greg Brown, UCSD

Cocaine is Toxic to White Matter: Diffusion Tensor Imaging, Ponnada Narayana, UT Houston

MRI Measures of Brain Connectivity in Rodents Following Acute, Binge, and Chronic Ethanol Treatment, Natalie M. Zahr, SRI International

The Impact of Methamphetamine on the Brain: Translating Cellular and Microstructural Changes with Diffusion Tensor Imaging in Mice and Humans, Benjamin S. McKenna, UCSD

Graph Theory Analysis of Ethanol Self-Administering Nonhuman Primates, Qawi K. Telesford, US Army Research Laboratory and University of Pennsylvania

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12:00 to 1:30 PM Lunch (on your own)

1:30 to 2:30 PM Plenary Seacliff Room A+B

Immunobiology of Narcolepsy, Emmanuel Mignot, Stanford University. Introduction, Martin Schalling, Karolinska Institutet

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2:30 to 2:45 PM Break

2:45 to 4:45 PM Concurrent Session 1 Seacliff Room A+B

Molecular-Genetic Regulatory Mechanisms: Brain Development and Plasticity: Chair, John Rubenstein, University of California, San Francisco and Co-Chair, Axel Visel, UC Berkeley

Interneuron Development, John Rubenstein, UCSF

Enhancers and the Epigenome, Axel Visel, UC Berkeley

Synaptic Homeostasis Mechanisms, Graeme Davis, UCSF

Dendrite development, Jan Yuhnung, UCSF

2:45 to 4:45 PM Concurrent Session 2 Seacliff Room D

Brain Abnormalities in Psychosis: From Risk States to Chronic Illness: Chair, Daniel Mathalon, UCSF and Co-Chair, Susanna Fryer, UCSF

Functional and Structural Imaging Biomarkers of Psychosis Risk in 22q11.2 Deletion Carriers, Carrie Bearden, UCLA

Multi-site fMRI Study of Cognitive Control-Related Brain Activation in Early Schizophrenia and Clinical High-Risk Youth, Tara

Niendam, UC Davis

Resting State Brain Activity Relates to Cognition Across the Illness Span in Schizophrenia, Susanna Fryer, UCSF and SVAMC

Chronnectomics of Schizophrenia: Time-Varying Connectivity Approaches to Characterize Early Onset and Prodromal Schizophrenia, Vince D. Calhoun, Mind Research Network and University of New Mexico

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4:45 to 5:45 PM Seacliff Foyer A-C

Poster Session

Saturday October 31st

7:45 to 9:45 AM Concurrent Session 1 Seacliff Room A+B

Circuit Specificity of Molecular Alterations in Psychosis: Chair, David Lewis, University of Pittsburgh and Co-Chair, Ken Fish, University of Pittsburg

Dopaminergic Regulation of Dendritic Spines in the Prefrontal Cortex, Ariel Deutch, Vanderbilt

Layer-specific Alterations in Cortical Chandelier Cell Inputs to Pyramidal Neurons in Schizophrenia, Ken Fish, University of Pittsburg

Interactions Between Cortical Basket and Pyramidal Neurons: Impact on Neural Network Oscillations in Schizophrenia, David Lewis, University of Pittsburg

7:45 to 9:45 AM Concurrent Session 2 Seacliff Room D

Neurobiological Models for Psychiatric Disorders: Chair, Brady Maher, Lieber Institute and Co-Chair, Bryan Luikart, Dartmouth

A Retroviral CRISPR-Cas9 System for Phenotype Discovery of Autism Candidate Genes in Developing Neurons, Bryan Luikart, Dartmouth

Elucidating the Mechanisms of Epilepsy and Autism Using Genetically Defined Mouse and Human Models of Tuberous Sclerosis Complex, Helen Bateup, UC Berkeley

Phenotype Discovery and Therapeutic Target Identification Using a Cell Autonomous Model of Neurodevelopmental Disorders, Brady Maher, Lieber Institute

Mouse Models of Autism to Test Hypotheses About Causes, and for Preclinical Evaluation of Potential Therapeutics, Jacqueline Crawley, UC Davis

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9:45 to 10:00 AM Break

10:00 to 12:00 PM Concurrent Session 1 Seacliff Room A+B

Working Towards Translational Models for Endophenotypes in Psychiatric Disorders: Chair, Andres Buonanno, NIH and Co, Chair, Julio Licinio, Co-Chair, South Australian Health and Medical Research Institute (SAHMRI) and Flinders University

Exploring High-Throughput Biomarkers for Cognitive Deficits: Oxidative Stress and Autofluorescence, Akira Sawa, Johns Hopkins

The Stress-Antidepressant-Diet (SAD) Paradigm: A New Animal Model to Study the Long-Term Metabolic Effects of Antidepressant Exposure, Julio Licinio, South Australian Health and Medical Research Institute (SAHMRI) and Flinders University

Bidirectional Neuregulin and NMDA Receptor Signaling in GABAergic Interneurons, Potential Cognitive Targets, Andres Buonanno, NIH

Translating OCD GWAS Findings into Mice to Identify Disease Mechanisms, Stephanie Dulawa, University of Chicago

10:00 to 12:00 PM Concurrent Session 2 Seacliff Room D

Functional Support for Alcohol Dependence GWAS candidates from Model Organisms: Chair, Brien Riley, Virginia Commonwealth University and Co-Chair, Michael Miles, Virginia Commonwealth University

Using C. Elegans for Validation and Discovery of Genes Involved in Acute Behavioral Responses to Alcohol, Andrew G. Davies, Virginia Commonwealth

Ras Suppressor 1 Acts Downstream of Integrin to Regulate Rac1 Activity and Ethanol Consumption in Drosophila and Humans, Adrian Rothenfluh, UT Southwestern

Genetic Analysis of Behavior and the Brain Regional Transcriptome in a Mouse Model of Progressive Ethanol Consumption, Michael Miles, Virginia Commonwealth

Genomewide Association Study of Alcohol Dependence Identifies Risk Loci Altering Sensitivity and Tolerance: Brien Riley, Virginia Commonwealth

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12:00 to 1:30 PM Lunch (on your own)

1:30 to 2:30 PM Plenary Seacliff Room A+B

Transcriptional Dynamics of Neurodevelopmental Disorders, Danny Weinberger, Lieber Institute: Introduction, William Bunney, UCI

2:30 to 2:45 PM Break

Sunday November 1st

7:45 to 9:45 AM Concurrent Session 1 Seacliff Room A+B

Drug Addiction: from Molecules to Circuits: Chair, Kirill Martemyanov, Scripps Research Institute and Co-Chair, Christopher Cowan, Harvard

Regulating Opioid Receptor Signaling in Mesolimbic Reward Circuit: Kirill Martemyanov, Scripps Research Institute

Transcriptional and Translational Mechanisms in Cocaine-induced Plasticity, Christopher Cowan, Harvard

The Dark Side of Opioids: Limiting Tolerance and Dose Escalation, Howard B. Gutstein, MD Anderson

Dopamine Circuit Mechanisms of Individual Alcohol Drinking Behaviors, Ming-Hu Han, Icahn School of Medicine at Mount Sinai

7:45 to 9:45 AM Concurrent Session 2 Seacliff Room D

Genetics and Genomics of Affective Disorders: Chair, Eli Stahl, Icahn School of Medicine at Mount Sinai and Co-Chair, John Kelsoe, UCSD

GWAS Meta-analyses of Bipolar Disorder and Schizophrenia, Stephan Ripke, Charité Universitätsmedizin Berlin

Psychiatric Phenotypes in Large Scale Bipolar Disorder and Bipolar-Schizophrenia GWAS Meta-Analyses, Andrew McQuillin, University College London

Molecular Markers of Depression, Na Cai, Oxford

Genome-scale Transcriptional Regulatory Network Models of Neuropsychiatric Disease, Seth Ament, Institute for Systems Biology

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9:45 to 10:00 AM Break

10:00 to 12:00 PM Concurrent Session 1 Seacliff Room A+B

Neural Circuit Formation Throughout The Lifespan: Chair, Anna Molofsky, UCSF and Co-Chair, Eric Ullian, UCSF

Glia Modulate the Innate Immune System to Promote Synapse Development, Anna Molofsky, UCSF

Dysregulation of Astrocyte Extracellular Signaling in Neurodevelopmental Disorders, Eric Ullian, UCSF

A Systemic Approach for Rejuvenating the Old Brain, Saul Villeda, UCSF

Imaging Experience-Dependent Synapse Pruning in Vivo, Yi Zuo, UC Santa Cruz

10:00 to 12:00 PM Concurrent Session 2 Seacliff Room D

The Origin of Developmental Risk in Psychiatric Disorders: Chair, Ron McKay, Lieber Institute and Co-Chair, Arnold Kriegstein, UCSF

Signaling Supporting Expanded Germinal Regional and Progenitor Development in Human Neocortical Development, Michael

Oldham, UCSF

Mechanisms that Determine Transdifferentiation to Neurons, Marius Wernig, Stanford

A Systematic Strategy to Map the Genetic and Epigenetic Interactions that Generate the Unique Biology of Individual Humans, Josh Chenoweth, Lieber Institute

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12:00 to 1:30 PM Lunch (on your own)

1:30 to 3:30 PM Concurrent Session 1 Seacliff Room A+B

Essential Pathways and Circuits of Autism Pathogenesis: Chair, Gul Dolen, Johns Hopkins and Co-Chair, Jennifer Darnell, Rockefeller

Gene Length Matters in Autism, Mark Zylka, UNC

Translational Control by FMRP, Targets and Mechanism, Jennifer Darnell, Rockefeller

Endosomal Signaling Deficits in Intellectual Disability and Autism, Chiara Manzini, George Washington

Social reward: Basic mechanisms and autism pathogenesis, Gul Dolen, Johns Hopkins

1:30 to 3:30 PM Concurrent Session 2 Seacliff Room D

New Insights into the Role of Glutamate Transporter SLC1A1 in Neuropsychiatric Disorders: Chair, Frank Middleton, SUNY and Co-Chair, Bita Moghaddam, University of Pittsburg

Opening Remarks: Glutamate and Psychosis: Setting the Stage for SLC1A1/EAAT3, Frank A. Middleton, SUNY

The Role of EAAT3 in the Action of Psychostimulants, Suzanne Underhill, NIMH

Glutamate and OCD … What is the Evidence? James Knowles, USC

Characterization of SLC1A1 CNVs in Families and Individuals with Schizophrenia, Parisa Afshari, SUNY

Discussant Perspective and Remarks, Bita Moghaddam, University of Pittsburg

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3:30 to 3:45 PM Break

3:45 to 5:45 PM Concurrent Session 1 Seacliff Room A+B

Olfactory Epithelium as a Source of Surrogate Neurons for Psychiatry research: Chair, Nicola Cascella, Sheppard Pratt Hospital and Co-Chair, Koko Ishizuka, Johns Hopkins

Characterization of Olfactory Cells as Aurrogate Biospecimens to Define Brain-Relevant Molecular and Functional changes, Youjin Chung, Johns Hopkins

DISC1 Phosphorylation-Dependent Defects in Neural Fate, Corticogenesis, and Cognitive Function in Psychotic Disorders, Koko Ishizuka, Johns Hopkins

Title: Transcriptional Markers of Mood Stabilization in Patient-Derived Olfactory Neuroepithelium, Evaristus Nwulia, Howard

Extracellular Matrix Abnormalities in Major Psychoses: From the CNS to the Olfactory Mucosa and Back, Harry Pantazopoulos, Harvard

3:45 to 5:45 PM Concurrent Session 2 Seacliff Room D

Beyond DNA: what genes can tell us about neuropathology: Chair, Stephan Sanders, UCSF and Co-Chair, Jeremy Willsey UCSF

Convergent Approaches to ASD Neurobiology, Stephan Sanders, UCSF

What do Communities of Risk Genes Tell Us About the Origins of Autism? Bernie Devlin, University of Pittsburgh

The Anatomical Distribution of Genetic Risk: Joe Dougherty, Washington University