

2017 Molecular Psychiatry Meeting Schedule

Friday October 6th

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

Postsynaptic Mechanisms in Neurodevelopmental Disorders, Chair, Peter Penzes, Northwestern and Co-Chair, Scott Soderling, Duke

Experience-Dependent and Differential Regulation of Local and Long-Range Excitatory Neocortical Circuits by Genes Linked to Human Neurodevelopmental Disorders, Kimberly Huber, UT Southwestern

The Interplay Between Synapse Function, Cortical Circuit Assembly and Cognitive Impairments Associated with Neuropsychiatric Disorders, Gavin Rumbaigh, Scripps-Florida

Circuit Selective Analysis of Genetic Influence of Behavioral Domains, Scott Soderling, Duke

Synaptic Alterations and Drivers in 16p11.2 Microduplication Mice, Peter Penzes, Northwestern

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

Psychiatric Genetics in the Post-GWAS Era, Chair, Fernando Goes, Johns Hopkins and Co-Chair, Maja Bucan, University of Pennsylvania

Quantifying the Impact of Rare and Ultra-Rare Coding Variation Across the Phenotypic Spectrum, Andrea Ganna, Broad Institute

Big Data Analysis and Genetic Liability to Schizophrenia, Panos Roussos, Mount Sinai School of Medicine

Integrating Genetic Data Types for Risk Gene Discovery, Eli Stahl, Mount Sinai School of Medicine

Genetic Pleiotropy Between Mood Disorders and Metabolic Traits in the Extended Amish Pedigree, Maja Bucan, University of Pennsylvania

9:45 to 10:00 AM Break

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

Presynaptic Molecules and Neurotransmitter Release, Chair, Susan Voglmaier, UCSF and Co-Chair, David Krantz, UCLA

Presynaptic Function and Rapid Antidepressant Action, Ege Kavalali, UT Southwestern

Aminergic Neuromodulation of Model Circuits, David Krantz, UCLA

Synaptic Mechanism Uncovered by Genealogical Proteomics of Psychiatric Disorders, Victor Faundez, Emory

Differential Regulation of Cortical and Thalamic Vesicular Glutamate Transporter Isoforms, Susan Voglmaier, UCSF

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

Genomics and Locus Discovery, Chair, Stephan Sanders, UCSF and Co-Chair, Donna Werling, UCSF

Whole Genome Sequencing in Autism Spectrum Disorder, Stephan Sanders, UCSF

De Novo Mutations in Regulatory Elements Cause Neurodevelopmental Disorders, Patrick Short, Yale

Massively Parallel Characterization of Gene Regulatory Variants, Nadav Ahituv, UCSF

Annotation of Non-Coding Genome Using 3D Genome Architecture, Hyejung Won, UCSF

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

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

Surprise at the Synapse: MHC Class I, Pruning and Plasticity, Carla Shatz, Stanford

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

New Developments in Fast Acting Antidepressants, Chair, Abraham Palmer, UCSD and Co-Chair, Todd Gould

Identification of a Novel, Fast-Acting GABAergic Antidepressant, Abraham Palmer, UCSD

Ketamine Metabolism to Hydroxynorketamines: Relevance to Fast Antidepressant Action, Todd Gould, University of Maryland School of Medicine

Mechanism of Ketamine Rapid Antidepressant Effects, Lisa Monteggia, UT Southwestern Medical Center

Progress on Rapastinel (Formerly GLYX-13): An NMDA Receptor Modulator with Rapid Acting Antidepressant Properties. Joseph Moskal, Northwestern University and Aptinyx

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

Modeling Developmental and Aging Brain Disorders Using Cellular Approaches, Chair, Karun Singh, McMaster University and Co-Chair, Kristen Brennand, Icahn School of Medicine at Mount Sinai

Modeling the Contribution of Common Variants to Schizophrenia Risk Using Stem Cells, Kristen Brennand, Icahn School of Medicine at Mount Sinai

Studying Neurodevelopmental Disorder Genes and Mechanisms Using Cellular Models, Karun Singh, McMaster University

Genetically Engineered Human Neurons as a Model to Study Psychiatric Disorders, Tamas Danko, Stanford University

Applications of Robotics and Deep Learning to Uncovering Disease-Relevant Phenotypes in iPSC Models of CNS disorders, Steven Finkbeiner, UCSF

Modeling Autism Using Pluripotent Stem Cells, Carol Marchetto, Salk Institute

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

Poster Session

Saturday October 7th

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

Emerging Impact of GI Microbes on Brain-Mediated Responses in Mood and Other Neuropsychiatric Disorders, Chair, Giulio Pasinetti, Icahn School of Medicine at Mount Sinai and Co-Chair, Dr Lap Ho, Icahn School of Medicine at Mount Sinai

Epigenetic Modulation of Inflammation and Synaptic Plasticity Promotes Resilience Against Stress Disorder and Depression: Implications of Gut-Brain Axis, Jun Wang, Icahn School of Medicine at Mount Sinai

Human GI Microbiome-derived Xenobiotic Metabolism: Implications for Therapies, Lap Ho, Icahn School of Medicine at Mount Sinai

Role of GI Microbiota-derived Polyphenolic Acids on Midlife Neuroticism Gene Expression: Implications for Neuroresilience, Giulio Maria Pasinetti, Icahn School of Medicine at Mount Sinai

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

Adolescent Cortical Maturation: Its Physiology and Pathology Associated with Mental Illness, Chair, Minae Niwa, Johns Hopkins and Co-Chair, Akira Sawa, Johns Hopkins

Roles of Adolescent Stress in the Developmental Trajectory of Cortical neurons and behavior: Relevance to Major Mental Illness, Minae Niwa, Johns Hopkins

Developmental Regulation of Social Reward Learning: Basic Mechanisms and Therapeutic Opportunities, Gul Dolen, Johns Hopkins

Sub-Circuit Changes in Hippocampus Structure and Function in Neurodevelopmental Schizophrenia-Related Rodent Models, André A. Fenton, NYU

TBD, Raquel E. Gur, University of Pennsylvania

9:45 to 10:00 AM Break

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

n=12??? Studying Adult Neuropsychiatric Disease with Well-powered Cellular Models, Chair, Roy Perlis, Massachusetts General Hospital

TBA

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

Cav1.2 and Cav1.3 L-type Ca²⁺ Channels and Neuropsychiatric Disorders: From Gene to Mechanism to Behavior, Chair, Anjali Rajadhyaksha, Cornell and Co-Chair, Andrew Pieper, University of Iowa

Variation in CACNA1C and Schizophrenia: From Genetic Association to Biology, Dimitri Avramopoulos, Johns Hopkins

Impact of Cav1.2 Channel Deficiency in the Prefrontal Cortex on Social Behavior and Anxiety, Anjali Rajadhyaksha, Cornell

Role of Cav1.2 channels in Neuronal Cell Death, Andrew Pieper, University of Iowa

Cav1.3 L-type Calcium Channels in Brain Disorders, Joerg Striessnig, University of Innsbruck

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

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

Modeling Cellular and Molecular Mechanisms of Human Neuropsychiatric Disease with Stem Cell Technology, Rusty Gage, Salk Institute

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

Mitochondrial Dynamics and Function in Psychiatric Disorders, Chair, Zu-Hang Sheng, NINDS and Co-Chair Josef Kittler, University College London

Regulation of Mitochondrial Dynamics by the Psychiatric Disease Risk Factor DISC1, Josef Kittler, University College London

Altered Mitochondrial Transport and Synaptic Energy Variability in Psychiatric Disorders, Zu-Hang Sheng, NINDS

The Role of Mitochondria in Anxiety Induced by Aversive Social Experience, Zheng Li, NIMH

Mitochondrial dysfunction in mood disorder: From humans to mice and back, Takaoki Kasahara, RIKEN

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

New Approaches for Drug Development in Psychiatry, Chair, Gopi Shanker, Novartis Institute of Biomedical Research

Recent Biological Insights Give Birth to a New Paradigm for Therapeutic Discovery in Psychiatry, Gopi Shanker, Novartis

Identification and Validation of SCN10a/Nav1.8 as a Therapeutic Target for Pitt Hopkins Syndrome, a Syndromic ASD, Huei-Ying Chen, Lieber Institute

Biological Pathways Involved in Brain Development as Novel Treatment Targets for Psychosis, Carrie Bearden, UCLA

Digital Therapeutics and Drug/Software Combinations for Treating Severe Medical Conditions; Case study on THRIVE for treatment of schizophrenia, Corey McCann, Pear Therapeutics

Sunday October 8th

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

Functional Genomics of Neuropsychiatric Disorders, Chair, Dan Geschwind, UCLA and Sasha Gusev, Dana-Farber Cancer Institute

Transcriptome-Wide Association Study of Schizophrenia and Chromatin Activity Yields Mechanistic Disease Insights, Sasha Gusev, Dana-Farber Cancer Institute

Transcriptomic Signatures of Microglial Activation Differentiate Autism From Adult-Onset Psychiatric Disorders, Mike Gandal, UCLA

TBA, Dan Geschwind, UCLA

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

Engineering 3D Brain Organoids for Modeling Developmental Disorders, Chair, Guo-li Ming, Johns Hopkins and Co-Chair, Jenny Hsieh, UT Southwestern

Cerebral Organoid Models of Epilepsy: Fact or Fiction? Jenny Hsieh, UT Southwestern

Human Brain Organoids on a Chip Reveal the Physics of Wrinkling, Orly Reiner, Weizmann Institute of Science

Brain-Region Specific Organoids for Modeling Developmental Disease, Guo-li Ming, University of Pennsylvania

Genomic Insights Into Human Brain Development, Evolution, and Disease, Arnold Kriegstein, UCSF

9:45 to 10:00 AM Break

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

Neural Codes in Memory Circuits, Chair, Joe Tsien, Augusta University and Co-Chair, Howard Eichenbaum, Boston University

Stress Induces Synaptic and Circuit Reorganization in the Mouse Cerebral Cortex, Yi Zuo, UC Santa Cruz

Prefrontal-Hippocampal Interactions that Support Context-Dependent Memory, Howard Eichenbaum, Boston University

Median Raphe Neurons Regulate Hippocampal Ripples and Memory Consolidation, Satoshi Ikemoto, NIH

The Conserved Organizing Logic of Cell Assemblies and its Alteration Upon Drug Abuse, Joe Tsien, Augusta University

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

Transcriptome and Epigenome Contributions to Genetic Risk: From the Global to the Local and Back Again, Chair, Cathy Barr, Krembil Research Institute and Co-Chair, Krishna Vadodaria, Salk Institute

Genome Editing of the RERE Super-Enhancer Alters Expression of Schizophrenia Risk Genes, Cathy Barr, Krembil Research Institute

Studying Mechanisms of SSRI-Resistance Using MDD-Patient Derived Neurons in Vitro, Krishna Vadodaria, Salk Institute

Dynamic Landscape of Cell type-Specific DNA Methylation Over Human Cortical Development, Andrew Jaffe, Lieber Institute for Brain Development

Controlling the Message. The Role of mRNA Methylation in Learning and Memory, Brandon Walters, Hospital for Sick Children

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

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

Schizophrenia Translational Genetics, Chair, Jim Kennedy, University of Toronto

TBA

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

Omics Shedding Light on Psychiatric Disorders. Chair, Daniel Martins-de-Souza, University of Campinas and Co-Chair, Chris Turck

Genomic markers of Illness Vulnerability in Bipolar Disorder: An Integrative Transcriptomic and Epigenomic Study, Consuelo Walss-Bass, UT Health School of Medicine

Integrating Longitudinal Multi-Omics in Conversion to Psychosis, Oussama Kebir, Université Paris

Defects of Myelination Are Common Pathophysiology in Syndromic and Idiopathic Autism Spectrum Disorders, Brady J. Maher, Lieber Institute

Systems Biology Approaches to Studying Neurodevelopmental Disorders, Lilia M. Iakoucheva, UCSD