<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Track</th>
<th>Presentation Title</th>
<th>Speaker</th>
</tr>
</thead>
</table>
| 13-Mar | 06:00 - 07:00 AM| Pioneering Our Understanding of the Human Brain | Keynote Presentation: Updates from the NIH BRAIN Initiative                           | Joshua A. Gordon, MD, PhD  
Director of National Institute of Mental Health                                                                                                                                                       |
| 13-Mar | 07:00 - 07:30 AM| Pioneering Our Understanding of the Human Brain | NIH BRAIN Funding Opportunities: NIH BRAIN Initiative and Functional Human Neuroscience | James Gnadt, PhD  
Program Director, Systems and Cognitive Neuroscience, National Institute of Neurological Disorders and Stroke  
Karen David, PhD  
Program Director, BRAIN Initiative, (National Institutes of Health) & Systems and Cognitive Neuroscience, (National Institute of Neurological Disorders and Stroke) |
| 13-Mar | 07:30 - 08:30 AM| Pioneering Our Understanding of the Human Brain | Discovery Neuroscience and Humans                                                   | James Gnadt, PhD  
Program Director, Systems and Cognitive Neuroscience, National Institute of Neurological Disorders and Stroke                                                                                                                                               |
| 13-Mar | 07:40 - 08:00 AM| Pioneering Our Understanding of the Human Brain | BRAIN Initiative Scientific Updates: How the Human Brain Learns to Learn            | Elizabeth Buffalo, PhD  
Professor, Department of Physiology & Biophysics, Neuroscience Focus Group, University of Washington                                                                                                                                                       |
| 13-Mar | 08:00 - 08:20 AM| Pioneering Our Understanding of the Human Brain | BRAIN Initiative Scientific Updates: Deciphering the Neuronal Mechanisms of Human Episodic Memory at the Single-Neuron Level | Ueli Rutishauser, PhD  
Board of Governors Chair in Neuroscience, Director, Human Neuropsychology Research, Associate Professor, Neurosurgery, Neurology & Biomedical Sciences, Cedars-Sinai Medical Center                                                                 |
| 13-Mar | 08:20 - 08:40 AM| Pioneering Our Understanding of the Human Brain | BRAIN Initiative Scientific Updates: Influence of Task Context on Motor Cortical Activity During Reaching and Grasping | Jennifer Collinger, PhD  
Assistant Professor, Department of Physical Medicine and Rehabilitation, University of Pittsburgh, Rehab Neural Engineering Labs, Biomedical Engineer, VA R&D Center of Excellence                                                                 |
| 13-Mar | 08:40 - 09:00 AM | Pioneering Our Understanding of the Human Brain | BRAIN Initiative Scientific Updates: Mechanisms of Rapid, Flexible Cognitive Control in Human Prefrontal Cortex | Sameer Anil Sheth, MD, PhD
Associate Professor, Vice-Chair of Clinical Research, Neurosurgery, Baylor College of Medicine |
| 13-Mar | 09:10 - 09:30 AM | Pioneering Our Understanding of the Human Brain | PANEL DISCUSSION: BRAIN Initiative Awardees | Elizabeth Buffalo, PhD
Professor, Department of Physiology & Biophysics, Neuroscience Focus Group, University of Washington
Ueli Rutishauser, PhD
Board of Governors Chair in Neuroscience, Director, Human Neurophysiology Research, Associate Professor, Neurosurgery, Neurology & Biomedical Sciences, Cedars-Sinai Medical Center
Jennifer Collinger, PhD
Assistant Professor, Department of Physical Medicine and Rehabilitation, University of Pittsburgh, Rehab Neural Engineering Labs, Biomedical Engineer, VA R&D Center of Excellence |
| 13-Mar | 09:30 - 09:50 AM | Pioneering Our Understanding of the Human Brain | Deep Brain Stimulation: Opportunities and Ethical Dilemmas | Rowshanak Hashemiyoon, PhD
Clinical Scientist, Author, Consultant |
| 13-Mar | 10:00 - 10:20 AM | Pioneering Our Understanding of the Human Brain | Neuroethics: An Essential Partner for Neuroscience | Khara Ramos, PhD
Director, Neuroethics Program, National Institute of Neurological Disorders and Stroke |
| 13-Mar | 10:20 - 10:40 AM | Pioneering Our Understanding of the Human Brain | Neuroethics: Ethical Issues in Research with Neural Devices with Humans | Saskia Hendriks, MD, PhD
Department of Bioethics, Clinical Center, National Institutes of Health (NIH) |
| 13-Mar | 10:40 - 11:00 AM | Pioneering Our Understanding of the Human Brain | Neuroethics: Invasive Human Neurophysiological Recordings for Basic Science: Is Altruism Enough? | Nader Pouratian, MD, PhD
Professor of Neurosurgery and Radiation Oncology and affiliated faculty in Bioengineering and Neuroscience, UCLA Medical Center & UCLA Brain Research Institute
Ashley Feinsinger, PhD
Adjunct Assistant professor, Department of Medicine, Affiliated faculty department of Philosophy, UCLA |
| 13-Mar | 11:00 - 11:20 AM | Pioneering Our Understanding of the Human Brain | Neuroethics: From Lab to Law; Neuroscience in the Courtroom | Francis Shen, JD, PhD
Executive Director of the Harvard MGH Center for Law, Brain, and Behavior; Associate Professor of Law, McKnight Presidential Fellow, University of Minnesota |
<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Topic</th>
<th>Panelists</th>
</tr>
</thead>
</table>
Khara Ramos, PhD
Director, Neuroethics Program, National Institute of Neurological Disorders and Stroke
Nader Pouratian, MD, PhD
Professor of Neurosurgery and Radiation Oncology and affiliated faculty in Bioengineering and Neuroscience, UCLA Medical Center & UCLA Brain Research Institute
Ashley Feinsinger, PhD
Adjunct Assistant professor, Department of Medicine, Affiliated faculty department of Philosophy, UCLA
Francis Shen, JD, PhD
Executive Director of the Harvard MGH Center for Law, Brain, and Behavior; Associate Professor of Law, McKnight Presidential Fellow, University of Minnesota
Saskia Hendriks, MD, PhD
Department of Bioethics, Clinical Center, National Institutes of Health (NIH) |
| 13-Mar| 11:50-12:00 PM| Innovative Neurotechnologies: NIH Funding for Technology Development and Translation to Humans | Nick Langhals, PhD
Program Director, Division of Translational Research, National Institute of Neurological Disorders and Stroke (NINDS) |
| 13-Mar| 12:00-12:20 PM| Innovative Neurotechnologies: Early Feasibility Study of a Visual Cortical Prosthesis for the Blind: The Orion Visual Prosthesis System | Nader Pouratian, MD, PhD
Professor of Neurosurgery and Radiation Oncology and affiliated faculty in Bioengineering and Neuroscience, UCLA Medical Center & UCLA Brain Research Institute |
| 13-Mar| 12:20-12:40 PM| Innovative Neurotechnologies: RAVE: R Analysis and Visualization of Intracranial Encephalography | Michael Beauchamp, PhD
Professor, Vice Chair of Basic Research, Departments of Neurosurgery and Neuroscience, Director of the Core for Advanced MRI, Baylor College of Medicine
John Magnotti, PhD
Assistant Professor, Neurosurgery, Baylor College of Medicine |
| 13-Mar| 12:40-1:00 PM  | Innovative Neurotechnologies: Human Brain Science; The Intersection of Translational Neurotechnology and Systems Neuroscience | Bijan Pesaran, PhD
Associate Professor of Neural Science, New York University |
| 13-Mar| 1:00-1:20 PM   | Innovative Neurotechnologies: High-Resolution Recording and Non-Invasive Perturbation Tools for the Human Brain | György Buzsáki, PhD
Biggs Professor of Neuroscience, NYU School of Medicine |
<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Session Title</th>
<th>Speaker</th>
</tr>
</thead>
</table>
| 13-Mar   | 01:20 - 01:40 PM | Pioneering Our Understanding of the Human Brain | Innovative Neurotechnologies: Merging Minds and Machines: Brain Computer Interfaces (BCIs) to Restore Movement and Communication for People with Paralysis | John Donoghue, PhD  
Founding Director of the Wyss Center for Bio and Neuroengineering |
| 13-Mar   | 01:40 - 02:00 PM | Pioneering Our Understanding of the Human Brain | Clinical Updates: Towards Artificial Intelligence Based Adaptive Deep Brain Stimulation in Movement Disorders | Wolf-Julian Neumann, MD  
Clinician Scientist, Movement Disorders and Neuromodulation Unit at the Department of Neurology, Charité - Universitätsmedizin Berlin, Germany |
| 13-Mar   | 02:00 - 02:20 PM | Pioneering Our Understanding of the Human Brain | Clinical Updates: Basal Ganglia-Cortical Loop Function During Speech | R. Mark Richardson, MD, PhD  
Associate Professor, Director, Adult Epilepsy & Movement Disorders Surgery, Director, Brain Modulation Laboratory, Faculty Member, University of Pittsburgh Brain Institute, Univ of Pittsburgh |
| 13-Mar   | 02:20 - 02:40 PM | Pioneering Our Understanding of the Human Brain | Clinical Updates: Inducing Cortical Plasticity by Brain Stimulation and Prehabilitation | Juan A. Barcia, MD, PhD  
Professor and Head, Department of Neurosurgery, Hospital Clinico San Carlos and Universidad Complutense de Madrid |
| 13-Mar   | 02:40 - 03:00 PM | Pioneering Our Understanding of the Human Brain | Clinical Updates: Closed Loop Deep Brain Stimulation in Parkinson's Disease Using Patient Specific Biomarkers and Therapeutic Windows | Helen Bronte-Stewart, MD, MS  
John E Cahill Family Professor in the department of Neurology and Neurological Sciences, Stanford |
| 14-Mar   | 06:00 - 07:00 AM | Perspectives on Neuropsychiatric Disorders | Keynote Presentation: Environmental Risk Mechanisms for Psychiatric Disorders | Andreas Meyer-Lindenberg, MD, MSc, MBA  
Director of the Central Institute of Mental Health, Department of Psychiatry and Psychotherapy, University Medical Centre Mannheim |
| 14-Mar   | 07:00 - 08:00 AM | Perspectives on Neuropsychiatric Disorders | Vulnerability to Stress as a Risk Factor for Major Mental Disorders | Anthony Grace, PhD  
Distinguished Professor of Neuroscience, Professor of Psychiatry and Psychology Department of Neuroscience, University of Pittsburgh |
| 14-Mar   | 08:00 - 09:00 AM | Perspectives on Neuropsychiatric Disorders | Using Computational Psychiatry to Develop a Rigorous and Integrative Understanding of Psychiatric Disorders | Tiago V. Maia, PhD  
Associate Professor, Faculty of Medicine, University of Lisbon |
| 14-Mar   | 09:00 - 10:00 AM | Perspectives on Neuropsychiatric Disorders | A Gene Expression Based Screening Platform for Mouse Models of Late-Onset Alzheimer's Disease | Greg Carter, PhD  
Associate Professor, The Jackson Laboratory |
<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Session Title</th>
<th>Speaker Details</th>
</tr>
</thead>
</table>
| 14-Mar | 10:00 AM - 11:00 AM | Perspectives on Neuropsychiatric Disorders | Identifying Pattern Transitions of Mind and Brain in Psychotherapy: The Nonlinear Dynamics of Human Change Processes | Günter Schiepek, PhD  
Paracelsus Medical University: Institute of Synergetics and Psychotherapy Research, Salzburg, Austria |
| 14-Mar | 11:00 AM - 12:00 PM | Perspectives on Neuropsychiatric Disorders | Understanding Batten Disease Pathogenesis | Jonathan D. Cooper, PhD  
Professor of Pediatrics, Washington University School of Medicine, St Louis |
| 14-Mar | 12:00 PM - 01:00 PM | Emerging Roles of the Immune System in Brain Function and Behavioral Processes | Keynote Presentation: Infections and Inflammation as Possible Causes of Severe Mental Disorders - Paving the Way for new Treatment Targets | Michael Benros, MD, PhD  
Research Leader, Mental Health Care Copenhagen, Copenhagen University Hospital |
| 14-Mar | 01:00 PM - 02:00 PM | Emerging Roles of the Immune System in Brain Function and Behavioral Processes | Exploring the Link Between Infection and Mental Illness: Results From Nationwide Studies | Ole Köhler-Forsberg  
Aarhus University and Copenhagen University Hospitals, Denmark; Massachusetts General Hospital and Harvard University |