**2015 Kavli Futures Symposium: “Next Generation NeuroTechnologies”**
September 26th, 2015
550 West 120th St.
5th floor Auditorium, NWC Building,
Columbia University, New York City

**Saturday September 26th**

<table>
<thead>
<tr>
<th>Breakfast (5th floor mezzanine NWC)</th>
<th>8:00 – 8:30am</th>
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<tbody>
<tr>
<td><strong>Speaker</strong></td>
<td><strong>Title</strong></td>
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<tr>
<td>Rafael Yuste, Columbia</td>
<td>Welcome</td>
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<tr>
<td>Miyoung Chung, Kavli Foundation</td>
<td>Introduction Kavli Futures Symposium</td>
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<tr>
<td>Tom Kalil, Deputy Director for Technology and Innovation</td>
<td>White House Brain Initiative</td>
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**Session I: Neuro Chemistry**  
Moderator: Virginia Cornish

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<tr>
<th>Speaker</th>
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<tr>
<td>Anne Andrews, UCLA</td>
<td>“Micro- to Nanoscale Neurotransmitter Sensors”</td>
<td>9:00 – 9:30am</td>
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<tr>
<td>Dirk Trauner, Munich</td>
<td>“Controlling Biological Activity with Photopharmacology”</td>
<td>9:30 – 10:00am</td>
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<tr>
<td>Luke Lavis, HHMI Janelia</td>
<td>“From Drugs to Dyes and Back Again”</td>
<td>10:00 – 10:30am</td>
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Discussion: Chemistry Technologies for Neuro  
10:30 – 10:45am

**Coffee Break (5th floor mezzanine NWC)**  
10:45 – 11:00am

**Session II: Neuro Computation**  
Moderator: Liam Paninski

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<tr>
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<tr>
<td>Jonathan Pillow, Princeton</td>
<td>“Flexible, scalable statistical methods for modeling the representation of sensory and decision-related information in neural populations”</td>
<td>11:00 – 11:30am</td>
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<td>Dmitri Chklovskii, Simons Center for Data Analysis</td>
<td>“Similarity matching: A principle of neural computation”</td>
<td>11:30 – 12:00pm</td>
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<td>Jeremy Freeman, HHMI Janelia</td>
<td>Computation + Neuroscience</td>
<td>12:00 – 12:30pm</td>
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Discussion: Neuro Computation Technologies  
12:30 – 12:45pm
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<tr>
<th>Time</th>
<th>Event Description</th>
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<tbody>
<tr>
<td>12:45 - 2:00pm</td>
<td>Lunch (Optional) NTC NeuroTechnology Fair (6th floor mezzanine NWC)</td>
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<td>1:00 – 2:00pm</td>
<td>Session III: Nano Neuro Moderator: Ken Shepard</td>
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<td>Jon Viventi, Duke <em>High-Resolution Brain Machine Interfaces using Flexible Silicon Electronics</em> 2:00 – 2:30pm</td>
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<td>Polina Anikeeva, MIT <em>Interrogation of Neural Circuits with Optoelectronic and Magnetic Materials</em> 2:30 – 3:00pm</td>
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<td>Hong-kun Park, Harvard <em>CMOS-Nanoelectrode Array for High Fidelity, Multiplexed Interrogation of Neuronal Networks</em> 3:00 – 3:30pm</td>
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<td>Discussion: Nano Neuro Technologies 3:30 – 3:45pm</td>
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<td>3:45 – 4:00pm</td>
<td>Coffee Break (5th floor mezzanine NWC)</td>
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<td>4:00 – 4:30pm</td>
<td>Session IV: Neuro Imaging Moderator: Darcy Peterka</td>
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<td>Na Ji, Janelia HHMI <em>Wavefront shaping for high-resolution deep brain imaging</em> 4:00 – 4:30pm</td>
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<td>Spencer Smith, SLAB UNC <em>Multiplexed roving surveillance across cortical areas</em> 4:30 – 5:00pm</td>
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<td>Karel Svoboda, Janelia HHMI <em>Illuminating the neural circuits underlying behavior</em> 5:00 – 5:30pm</td>
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<td>Discussion: Neuro Imaging Technologies 5:30 – 5:45pm</td>
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<td>5:45 – 6:00pm</td>
<td>Rafael Yuste Closing Remarks</td>
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<td>6:00 – 7:30pm</td>
<td>Reception and Poster Session (6th floor mezzanine NWC)</td>
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