**7th NTC Symposium:**

Voltage Imaging: a Next-Generation Technology for Neuroscience  
Dec 13-14th, 2018  
Jerome L. Greene Science Center- 9th Floor Lecture Hall  
Columbia University Manhattanville campus  
3227 Broadway (at West 129th Street)  
New York, NY 10027

Organizers: Rafael Yuste (Columbia NTC), Darcy Peterka (Columbia NTC & ZMBBI) and Yuki Bando (Hamamatsu U.)  
Sponsors: NSF and Z-MBBI

**THURSDAY, DECEMBER 13th**

**Breakfast and Registration:** 8:00 - 8:30 a.m.  
**Welcome:** 8:30 - 8:45 a.m.  
Rafael Yuste (Columbia NTC)  
Steve Sielgelbaum (Columbia MBBI) Kelley  
Remole (Columbia MBBI)  
NSF NeuroNex Representative TBN

**Keynotes:** 8:45 - 9:45 a.m.  
Lawrence Cohen (Yale)  
Amiram Grinvald (Weizmann)

**Session 1: Sensors 1**  
9:45 a.m. – 12.00 p.m. (with coffee break)  
Yuki Bando Moderator

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<tr>
<th>Thomas Knopfel (UCL, London)</th>
<th>“Idea, Conceptualization, and Towards Practical Application of Genetically Encoded Voltage Indicators”</th>
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<tr>
<td>Vincent Pieribone (Yale)</td>
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<td>Francois St-Pierre (Baylor)</td>
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<td>Pancho Bezanilla (Chicago)</td>
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**Lunch:** 12:00 – 1:00 p.m.  
**Greene Building Tour:** 1:00 – 1:30 p.m.

**Session 2: Sensors 2**  
1:30 – 4.30 p.m. (with coffee break)  
Pancho Bezanilla Moderator

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<tr>
<th>Adam Cohen (Harvard)</th>
<th>“All-optical Electrophysiology in Behaving Mice”</th>
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Ed Boyden (MIT)  “Evolving and Designing Optical Tools for Observing and Controlling Neural Circuits”
Yuki Bando (Hamamatsu U.)  TBA
Rafael Yuste (Columbia)  TBA

Summary day 1: 4:30 – 5:00 p.m. (P. Bezanilla and Y. Bando)

Poster Session and Reception: 5:00 -7:00 p.m.

Dinner for Speakers: 7:00 - 9:00 p.m.

FRIDAY, DECEMBER 14th

Breakfast: 8:00-8:30 a.m.

Session 3: Sensors 3
8.30 am– 12:00 p.m. (with coffee break)
Darcy Peterka  Moderator
Mark Schnitzer (Stanford)  TBA
Evan Miller (Berkeley)  TBA
Eric Schreiter (Janelia)  TBA
Dali Sames (Columbia)  TBA
Yamuna Krishnan (Chicago)  TBA
Na Ji (Berkeley)  “kHz Frame Rate Imaging of Genetically Encoded Activity Indicators”

Lunch: 12:00 p.m. – 1:00 p.m.

Session 4: Optical and Computational Methods
1:00 p.m. – 4:30 p.m. (with coffee break)
Rafael Yuste  Moderator
Darcy Peterka (Columbia)  TBA
Valentina Emiliani (Paris)  TBA
Elizabeth Hillman (Columbia)  TBA
Laura Waller (Berkeley)  TBA
Liam Paninski (Columbia)  “Denoising, Compressing, and Demixing Voltage Imaging Data”
Adrienne Fairhall (U Washington)  

Summary day 2: 4.30 -5.00 p.m. (R. Yuste and D. Peterka)

Session 5: Trainee Social and Discussion: Fostering Interdisciplinary Collaborations  5:00 p.m. – 6:30 p.m.  
Adrienne Fairhall  
Moderator

Dinner for Speakers: 7:00 - 9:00 p.m.