

*7<sup>th</sup> NTC Symposium*  
**Voltage Imaging: A Next-Generation Technology for Neuroscience**

December 13<sup>th</sup> and 14<sup>th</sup>, 2018  
Jerome L. Greene Science Center 9<sup>th</sup> Floor Lecture Hall  
Columbia University Manhattanville Campus  
3227 Broadway (at West 129<sup>th</sup> Street)  
New York, NY 10027

**Organizers**

Rafael Yuste (Columbia Neurotechnology Center)  
Darcy Peterka (Columbia Neurotechnology Center and Zuckerman Mind Brain Behavior Institute)  
Yuki Bando (Hamamatsu University)

**Sponsors**

National Science Foundation  
Zuckerman Mind Brain Behavior Institute

**THURSDAY, DECEMBER 13<sup>th</sup>**

**Breakfast and Registration: 8:00 - 8:30 a.m. Welcome: 8:30 - 8:45 a.m.**

Rafael Yuste (Columbia Neurotechnology Center)  
Steve Sielgelbaum (Columbia Zuckerman Mind Brain Behavior Institute)  
Kelley Remole (Columbia Zuckerman Mind Brain Behavior Institute)  
National Science Foundation NeuroNex Representative TBA

**Keynotes: 8:45 - 9:45 a.m.**

Lawrence Cohen (Yale University)  
Amiram Grinvald (Weizmann Institute of Science)

**Session 1, Sensors 1: 9:45 a.m. – 12:00 p.m. (with coffee break)**

Yuki Bando	Hamamatsu University	Moderator
		Idea, Conceptualization, and Towards
Thomas Knopfel	University College, London	Practical Application of Genetically
		Encoded Voltage Indicators
Vincent Pieribone	Yale University	TBA
Michael Lin	Stanford University	TBA
Francois St-Pierre	Baylor University	TBA
Pancho Bezanilla	University of Chicago	Recording and Stimulation with Light

**Lunch: 12:00 – 1:00 p.m.**

**Jerome L. Greene Building Tour: 1:00 – 1:30 p.m.**

**Session 2, Sensors 2: 1:30 – 4:00 p.m. (with coffee break)**

Pancho Bezanilla	University of Chicago	Moderator
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Adam Cohen	Harvard University	All-Optical Electrophysiology in Behaving Mice
Ed Boyden	Massachusetts Institute of Technology	Evolving and Designing Optical Tools for Observing and Controlling Neural Circuits
Yuki Bando	Hamamatsu University	TBA
Rafael Yuste	Columbia University	TBA

**Summary of Day 1: 4:30 – 5:00 p.m. (Pancho Bezanilla and Yuki Bando)**

**Poster Session and Reception: 5:00 – 7:00 p.m.**

**Dinner for Speakers: 7:00 – 9:00 p.m.**

**FRIDAY, DECEMBER 14<sup>TH</sup>**

**Breakfast: 8:00 – 8:30 a.m.**

**Session 3, Sensors 3: 8:30 a.m. – 12:00 p.m. (with coffee break)**

Darcy Peterka	Columbia University	Moderator
Mark Schnitzer	Stanford University	TBA
Evan Miller	University of California, Berkeley	TBA
Eric Schreiter	Janelia Research Campus	TBA
Dali Sames	Columbia University	TBA
Yamuna Krishnan	University of Chicago	TBA
Na Ji	University of California, Berkeley	kHz Frame Rate Imaging of Genetically Encoded Activity Indicators

**Lunch: 12:00 – 1:00 p.m.**

**Session 4, Optics and Computation: 1:00 – 4:30 p.m. (with coffee break)**

Rafael Yuste	Columbia University	Moderator
Darcy Peterka	Columbia University	TBA
Valentina Emiliani	University of Paris	TBA
Elizabeth Hillman	Columbia University	TBA
Laura Waller	University of California, Berkeley	TBA
Liam Paninski	Columbia University	Denoising, Compressing, and Demixing Voltage Imaging Data
Genevra Allen	University of Texas, Austin	TBA
Adrienne Fairhall	University of Washington	TBA

**Summary of Day 2: 4:30 – 5:00 p.m. (Rafael Yuste and Darcy Peterka)**

**Session 5, Trainee Social and Discussion on Fostering Interdisciplinary Collaborations: 5:00 – 6:30 p.m.**

Adrienne Fairhall

University of Washington

Moderator

**Dinner for Speakers: 7:00 – 9:00 p.m.**