

**NanoNeuro 2022**  
Thursday, July 21<sup>st</sup>, 2022

Sponsored by the Tianqiao and Chrissy Chen Institute

Hosted by the NeuroTechnology Center at Columbia University and the Donostia International Physics Center

Organized by Rafael Yuste and Aitzol Garcia-Etxarri

New York Time  
EDT (UTC -4)

Europe Time  
CEST (UTC +2)

**Session 1: Nano**

Chair: *Aitzol Garcia-Etxarri*

8:00 - 8:05 AM	14:00 - 14:05	Rafael Yuste (Columbia U) and Aitzol Garcia-Etxarri (DIPC) <i>Introductory Remarks</i>
8:05 - 08:35 AM	14:05 - 14:35	Guillaume Baffou (CNRS, Marseille) <i>Quantitative Phase Imaging for Thermoplasmonics and Biomicroscopy</i>
8:35 - 9:05 AM	14:35 - 15:05	Viola Vogel (ETH Zurich) <i>Molecular Mechanobiology of Extracellular Matrix: Healthy Versus Inflammatory Cell Niches</i>
9:05 - 9:35 AM	15:05 - 15:35	Sylvie Roke (EPFL) <i>Water as a Contrast Agent for Membrane Potentials &amp; Ion Fluxes in Neurons</i>
9:35 - 10:05 AM	15:35 - 16:05	Valentin Nägerl (Bordeaux) <i>Mind the Gap: New Approaches to Study the Extracellular Space of the Brain</i>
10:05 - 10:35 AM	16:05 - 16:35	Panel Discussion <i>Moderated by Rafael Yuste and Aitzol Garcia-Etxarri</i>
10:35 - 11:05 AM	16:35 - 17:05	Break

**Session 2: Neuro**

Chair: *Rafael Yuste*

11:05 AM - 11:35 PM	17:05 - 17:35	Shimon Weiss (UCLA) <i>Novel Nano-optical Tools for Electrophysiology and Bioelectricity Investigations</i>
11:35 -12:05 PM	17:35 - 18:05	Ozgur Sahin (Columbia U) <i>Electromechanical Tension in Cell Membranes</i>
12:05 - 12:35 PM	18:05 - 18:35	Jerzy Szablowski (Rice U) <i>Noninvasive Neuroengineering</i>
12:35 - 1:05 PM	18:35 - 19:05	Dirk Trauner (NYU) <i>Optical Control of Proteins Essential for Memory</i>
1:05 - 1:45 PM	19:05 - 19:45	<b>Keynote: Alice Ting (Stanford U)</b> <i>Molecular Recorders for Writing Transient Cellular Events into RNA</i>
1:45 - 2:15 PM	19:45 - 20:15	Panel Discussion <i>Moderated by Rafael Yuste and Aitzol Garcia-Etxarri</i>
2:15 - 2:30 PM	20:15 - 20:30	Rafael Yuste and Aitzol Garcia-Etxarri <i>Closing Comments</i>