

Biophysical Society 67<sup>th</sup> Annual Meeting  
Single-Molecule Forces, Manipulation, and Visualization Subgroup Symposium  
Saturday February 18, 2023  
San Diego, California

**Subgroup Co-Chairs:** Zev Bryant, Stanford University, USA and Wesley P. Wong, Harvard University, USA

**Symposium Time:** 1:30 PM - 5:30 PM PST

**Symposium Room:** 11AB

**Subgroup Business Meeting:** 3:30 PM

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1:30 PM Opening Remarks

1:30 PM Ruben Gonzalez, Jr., Columbia University, USA

*Realtime Observation of Substrate Translocation Dynamics in an ABC Transporter*

1:52 PM Sabrina Leslie, University of British Columbia, Canada

*Tether-Free, Single-Molecule Microscopy of DNA Interactions in Out-of-Equilibrium Conditions*

2:14 PM Jie Yan, National University of Singapore, Singapore

*The Mechanical Activation of Talin- and Vinculin-Mediated Rigidity Sensing of Extracellular Matrix*

2:36 PM Wendy Thomas, University of Washington, USA

*How Some Single Receptor-Ligand Bonds Lock Instantly into a Long-Lived Force-Resistant State*

2:58 PM Pallav Kosuri, Salk Institute, USA

*Origami Movement Microscopy*

3:20 PM Break

3:30 PM Subgroup Business Meeting

3:52 PM Fangyuan Ding, University of California, Irvine, USA

*Reveal Competitive Hybridization Dynamics at the Single-Molecule Level*

4:14 PM Olga Dudko, University of California, San Diego, USA

*Universality vs. Specificity in Synaptic Transmission*

4:36 PM Felix Ritort, University of Barcelona, Spain

*RNA Cold Misfolding*

4:58 PM Eugene Kim, Max Planck Institute, Frankfurt, Germany

*DNA Loop Extrusion Is a Conserved Mechanism among All Eukaryotic SMC Complexes*

5:20 PM Closing Remarks

The Single-Molecule Forces, Manipulation, and Visualization Subgroup is grateful for support from the following sponsor:

The logo for LUMIX features the word "LUMIX" in a bold, sans-serif font. The letters "L", "U", "M", and "X" are dark grey, while the "I" is a bright blue. The "C" is dark grey with a blue circle in the center. The "K" and "S" are dark grey. The letters are closely spaced and have a modern, clean aesthetic.