

HARRINGTON SYMPOSIUM

Micro/Nano Fluidics for Biomedicine and Sustainable Energy

Thursday, May 15th, 2025

5th Floor | Gary L. Thomas Energy Engineering Building

7:30 AM Breakfast

8:30 AM Opening Remarks

Xiaoyun Ding & Piran Kidambi, Conference Organizers

David Vanden Bout, Interim Executive Vice President and Provost

Don Siegel, Department Chair, Walker Department of Mechanical Engineering

9:00 AM Session 1

Lydia Sohn, University of California, Berkeley

Using Microfluidics to Assess Breast Cancer Susceptibility

Benny Freeman, The University of Texas at Austin

Facilitated Transport Membranes for Olefin/Paraffin Separation.

10:30 AM Break

11:00 AM Session 2

Hang Lu, Georgia Institute of Technology

Illuminating Natural Intelligence with Smart Experimental Systems and Advanced Machine Learning

Venkat Ganesan, The University of Texas at Austin

Mechanisms Underlying Selectivity of Zwitterionic Amphiphilic Copolymer (r-ZAC) Membranes

12:30 PM Lunch

1:30 PM Session 3

Eric Chiou, University of California, Los Angeles

Manipulating Single Cells with Light Beams

Adela Ben-Yakar, The University of Texas at Austin

The Next Generation High-Content & High-Throughput Microfluidic Platforms for Testing Using New Approach Methodologies (NAMs)

Narayan Aluru, The University of Texas at Austin

Nanofluidics in Solid-State Membranes

4:00 PM Adjourn



The University of Texas at Austin
Walker Department
of Mechanical Engineering
Cockrell School of Engineering

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Micro/Nano Fluidics for Biomedicine and Sustainable Energy

Friday, May 16th, 2025

5th Floor | Gary L. Thomas Energy Engineering Building

7:30 AM Breakfast

8:30 AM Session 4

Manish Kumar, The University of Texas at Austin

What Can We Learn From Biology About Designing Membranes?

Emma Fan, The University of Texas at Austin

Advancing Robotic Materials and Devices through Controlled Electric-Matter-Water Interactions

10:00 AM Break

10:30 AM Session 5

Jamie Warner, The University of Texas at Austin

Understanding the Structure of Nano and Micro Fluidic Systems Using Advanced Electron Microscopy Methods

Yuebing Zheng, The University of Texas at Austin

Opto-Thermo-Fluidics: Enabling Versatile Manipulation and Multifunctional Measurement Across Scales

Hang Ren, The University of Texas at Austin

Learning from the Heterogeneity at the Electrode-Electrolyte Interface via Electrochemical Correlative Microscopy

12:45 PM Closing Remarks

Xiaoyun Ding & Piran Kidambi, Conference Organizers

1:00 PM Lunch

2:00 PM Happy Hour

Moxy Austin, Courtyard
2552 Guadalupe Street
Austin, TX 78705



The University of Texas at Austin
Walker Department
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