THE JOINT UT SOUTHWESTERN-UT DALLAS

NIH FIRST PROGRAM

UTSouthwestern Medical Center | THE UNIVERSITY OF TEXAS AT DALLAS

FIRST FUTURE FACULTY SYMPOSIUM
November 6-7, 2023

ND14 Open Dining Room,
UT Southwestern Medical Center (UTSW)
T. Boone Pickens Biomedical Building
6001 Forest Park Rd., Dallas, TX 75235

DAY 1: NOV 6, 2023

11:00 AM - 12:00 PM	Check-in and Registration
12:00 - 1:50 PM	Lunch Welcome and Opening Remarks Joan Conaway, Ph.D., Vice Provost and Dean of Basic Research, UTSW Joseph Pancrazio, Ph.D., Vice President, Research & Innovation, UTD Overview of UTSW-D NIH FIRST Helen Yin, PhD, Professor of Physiology, Associate Dean Women's Careers, UTSW Francesca Filbey, PhD, Professor of Cognitive Sciences. Associate Provost, UTD Ice Breakers and Networking
1:50 – 2:00 PM	Break

Session 1 (short talks: 12 min. presentation, 2 min. Q&A, 1 min. transition)
NEUROSCIENCE. Moderator: Theodore Price, PhD, UTD

2:00 – 2:15 PM	Titilola Akintoloa, PhD, U. of Maryland *The Influence of Expectations & Cognitive Factors on Pain and Health Outcomes*
2:15 – 2:30 PM	John S. Del Rosario Benjamin, PhD, Washington U. *Homeostatic Regulatory Mechanisms in Mouse and Human Sensory Neurons: A Yin and Yang Tale of Neuroplasticity in the Peripheral Nervous System*
2:30 – 2:45 PM	Erica J. Rodriguez, PhD, Columbia U. *How Do Social Stimuli Drive Motivated Behavior?*

2:45 – 3:00 PM Anny Reyes, PhD, UC San Diego
Community-Engaged Research To Promote Brain Health Equity

3:00 – 3:15 PM Ismail Ahmed, PhD, Lagone NYU
Chemical Tools to Study Neuropeptide Signaling

3:15 – 3:30 PM Kiel Telesford, PhD, MS, Weill Cornell Medicine
Antibody Response 'Quantity and Quality': A Bridge to Understanding Ethnicity-associated, Discordant Multiple Sclerosis Severity

10 min Break

Session 2 (short talks)
BIOMEDICAL ENGINEERING. Moderator: Shalini Prasad, PhD, UTD

3:40 – 3:55 PM Lisa Eshun-Wilson, PhD, Scripps Research Institute
Visualizing Some of Nature's Most Mysterious Machines Using Cryo-EM

3:55 – 4:10 PM Charisse M. Nartey, PhD, UT Dallas
In vivo Functional Phenotypes from a Computational Epistatic Model of Evolution

4:10 – 4:25 PM Gabriel Muhire Gihana, PhD, Lyda Hill Dept. Bioinformatics, UTSW
Branched Actin Morphological Motifs Regulate Oncogenic Ras Signaling

4:25 – 4:40 PM Nicolas Muzzio, PhD, UT San Antonio
Engineering Soft Biomedical Materials to Modulate Neuronal Cell Behavior

4:40 – 4:55 PM Katie Young, PhD, Vanderbilt University
Expanding the Genomechanics Toolbox: New Techniques to Investigate the Role of Cancer Cell Mechanics in Metastasis

DAY 2: NOVEMBER 7, 2023

T. Boone Pickens Biomedical Building
6001 Forest Park Rd., Dallas, TX 75235

7:30 - 8:30 AM — Breakfast and Networking

Session 3 (short talks):
CANCER 1. Moderator: Maralice Conacchi Sorrell, PhD, UTSW

8:30- 8:45 AM — Roberto Alonso Matilla, PhD, University of Minnesota
Optimization of Therapeutic T Cells Through Biophysical Modeling

8:45 – 9:00 AM — Melanie Rodriguez, PhD, UTSW
Unveiling Targeted Cancer Therapies through Strategic Small Molecule Design and Synthesis

9:00 – 9:15 AM — Tania Lopez Silva, PhD, NCI
Material-Based Immunomodulation Using Nanofibrous Peptide Hydrogels

9:15 – 9:30 AM — Kendrick Smith, PhD, U. Michigan – Ann Arbor
Developing Biocatalytic Strategies to Access Complex Molecular Scaffolds

9:30 – 9:45 AM — Maria Fernanda Forni, PhD, Yale
Metabolic Regulation of Cell Fate and Function in Mammalian Skin: Implications for Tissue Homeostasis and Aging

10 min Break

Session 4 (short talks)
Cancer 2. Moderator: Russell DeBose-Boyd, PhD

9:55 –10:10 AM — Jodi Kraus, PhD, Princeton
Regulation of Branched Microtubule Networks by Ran GTP

10:10 - 10:25 AM — Johanna Melo-Cardenas, PhD, St Jude Children's Research Hospital
Insights into the Fibrotic Progression of Myeloproliferative Neoplasms

10:25 – 10:40 AM — Arianne Hunter, PhD, California Institute of Technology
Taming Reactive Intermediates Using Transition Metal Catalysis

10:40 – 10:55 AM — Crystal Rae Archer, PhD, UT Health Science Center San Antonio
A phosphorylation switch controls Kv7 channel configuration and activity

10:55 – 11:10 AM — Maria del Carmen Lafita Navarro, PhD, UTSW
Uncovering Molecular Players in Cell Growth and Proliferation

11:10 – 11:30 AM Grab lunch at buffet line

11:30 – 12:00 PM Lunch (30 min) without formal programing & continue lunch during next career development module

12:00 – 1:35 PM **Session 5. Transitioning From a Postdoc to a Faculty**

Moderators: Helen Yin, PhD, UTSW & Francesca Filbey, PhD, UTD

- **Ted Price, PhD, Professor,** UTD School of Behavior and Brain Science: The joint UTSW- UTD FIRST Program Capitalizes on Both Worlds (10 min)
- **Kate Rader, CPRP,** UTSW Office of Academic Recruitment Support Services (30 min)
- **Frankie Heyward, PhD**: Experience of a New UTSW Tenure Track Assistant Professor (10 min)
- **Katelyn Sadler, PhD, UTD**: Experiences of a UTD Junior Faculty - Advantages of Research University with Undergraduate Students (10 min)
- **Vincent Tagliabracci, PhD:** Experience of a UTSW faculty who has risen through the ranks. Advantages of Working at UTSW (15 min)
- **Q&A** (20 min)
- **Fill out evaluation**

