



The University of Texas System

The University of Texas Systemwide Brain Research Summit

AT&T Conference Center at the University of Texas
1900 University Avenue, Austin, TX, 78705

Monday, November 18, 2024

7:30 am - 9:00 am

Registration/Check in/Breakfast

9:00 am - 9:30 am

Introduction and Opening Remarks

- Message from **Governor Greg Abbott** (pre-recorded)
- **William Dauer, MD**, Co-Chair
UT Southwestern

9:30 am - 10:20 am

Keynote Session

Rex Marco, MD – Program Director of Spine Fellowship at the McGovern Medical School, UTHSC-Houston

10:20 am – 11:20 am

Advancements in Acute Brain Injury

- *“Stroke and Traumatic Brain Injury: Unveiling the Burden in Texas”* - **Robin Novakovic, MD** (UT Southwestern)
- *“Delayed Treatment Strategies for Chronic Brain Injury”* - **Rodney Ritzel, PhD** (UTHSC-Houston)
- *“Role of the Immune System in Acute Brain Injury after Stroke and Aneurysm Rupture”* - **Pangiotis “Panos” Masterakos, MD, PhD** (UT Southwestern)
- *“Exploring New Frontiers in Cerebrovascular Disease: How AI is Shaping Modern Clinical Practices”* - **Sunil Sheth, MD** (UTHSC-Houston)

Moderators:

- **Sara Doyle, MD** (UTHSC-San Antonio)
- **Robin Novakovic, MD** (UT Southwestern)



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11:20 am - 12:20 pm

Trauma and PTSD: Understanding and Healing the Brain

- “*Understanding Childhood Trauma: The Texas Childhood Trauma Research Network (CTRN)*” - **Karen Wagner, MD, PhD** (UT Medical Branch - Galveston)
- “*What Postmortem Brain Studies Reveal about Post Traumatic Stress Disorder, Childhood Maltreatment and Suicide*” - **Charles Nemeroff, MD, PhD** (UT Austin)
- “*Neurocircuitry Consequences of Early Life Trauma*” - **Josh Cisler, PhD** (UT Austin)

Moderators:

- **Charles Nemeroff, MD, PhD** (UT Austin)
- **Karen Wagner, MD, PhD** (UT Medical Branch - Galveston)

12:20 pm - 1:20 pm

Lunch and Networking

1:20 pm - 2:20 pm

Neuroimmunology

- “*Neuromyelitis Optica: An Autoimmune Astrocytopathy*” - **Claudia Lucchinetti, MD** (UT Austin)
- “*STING Signaling and Neuroinflammation*” - **Nan Yan, PhD** (UT Southwestern)
- “*Unraveling the Neuroimmune Axis in Long COVID: From the Bench to the Bedside*” - **Esther Melamed, MD, PhD** (UT Austin)
- “*Microglia P2Y6 Calcium Signaling Shapes Neuroimmune Responses in Epilepsy*” - **Long Jun Wu PhD** (UTHSC-Houston)

Moderators:

Nan Yan, PhD (UT Southwestern)

Claudia Lucchinetti, MD (UT Austin)



The University of Texas System

2:20 pm - 3:20 pm	<p>Psychosis: Early Detection and Advanced Treatment</p> <ul style="list-style-type: none">• “<i>Molecular Psychiatry of Schizophrenia</i>” - Daniel Lodge, PhD (UTHSC-San Antonio)• “<i>Early Schizophrenia, What is New in Schizophrenia Course of Illness</i>” - Elena Ivleva, MD PhD (UT Southwestern)• “<i>Treatment Needs in Established Schizophrenia</i>” - David Roberts, PhD (UTHSC-San Antonio)• “<i>Brain Imaging in Schizophrenia</i>” - Elliot Hong, MD (UTHSC-Houston) <p>Moderators:</p> <ul style="list-style-type: none">• Carol Tamminga, MD (UT Southwestern)• Jair Soares, MD, PhD (UTHSC-Houston)
3:20 pm - 3:35 pm	<p>Break</p>
3:35 pm - 5:05 pm	<p>Electroceuticals and Pharmaceuticals: New Horizons</p> <ul style="list-style-type: none">• “<i>Enhancing Rehabilitation with Vagus Nerve Stimulation</i>” – Seth Hays, PhD (UT Dallas)• “<i>Selective Activation of Neuronal Subgroups using Cellular Biophysics-based Programming of Electrical Waveforms</i>” - David Paydarfar, MD (UT Austin)• “<i>Neuromodulation and Neuroplasticity for Gait Rehabilitation</i>” - Anjali Sivaramakrishnan, PT, PhD (UTHSC-San Antonio)• “<i>New Tools for Brain State Modeling in Humans</i>” - Bradley Lega, MD (UT Southwestern)• “<i>Developing Antibodies Targeting LILRB2/TREM2 in Alzheimer’s Disease</i>” - Zhiqiang An, PhD (UTHSC Houston)• “<i>MD Anderson’s Small Molecule Drug Discovery Engine</i>” - Michael “Mick” Soth, PhD (MD Anderson) <p>Moderators:</p> <ul style="list-style-type: none">• Nader Pouratian, MD, PhD (UT Southwestern)• Jim Ray, PhD (MD Anderson)
5:05 pm - 5:10 pm	<p>Closing Remarks</p> <p>Karen Wagner, MD, PhD – Co-Chair UT Medical Branch - Galveston</p>
5:10 pm - 7:00 pm	<p>Reception and Poster Session</p>



The University of Texas System

Tuesday, November 19, 2024

- 7:00 am - 8:00 am **Registration/Check-in/Breakfast**
- 8:00 am - 8:20 am **Introduction and Opening Remarks**
Karen Wagner, MD, PhD – Co-Chair (UT Medical Branch - Galveston)
John Zerwas, MD, FASA (University of Texas System)
- 8:20 am – 9:20 am **How to Elevate Brain Health in Texas: A Legislative Perspective**
- **Representative Tom Craddick** - Texas Representative for House District 82 and former Speaker of the House
 - **Senator Joan Huffman, JD** - Texas Senate District 17 and Chair of the Senate Committee on Finance
 - **Representative Greg Bonnen, MD** - Texas Representative for House District 24 and Chair of the Committee on Appropriations
- Moderator:**
- **John Zerwas, MD, FASA** (University of Texas System)
- 9:20 am - 10:20 am **Overcoming Substance Use Disorders**
- *“High Pressure: Cannabis, Stress, and the Developing Brain”* - **Francesca M. Filbey, PhD** (UT Dallas)
 - *“Beyond the High: Cannabis, Mood, and Cognition”* - **Chukwuemeka “Emeka” Okafor, PhD, MPH**, UTHSC-San Antonio
 - *“Sex Differences in Models of Alcohol Use Disorder: Implications for Recovery”* - **Kimberly Nixon, PhD** (UT Austin)
 - *“Phenotypes of Substance Use Disorders: Toward precision medicine”* – **Noelle C. Anastasio, PhD** (UT Medical Branch - Galveston)
 - *“Human-derived Models of Drug Exposure: Promise for Developing Novel Therapeutics”* - **Consuelo Walss-Bass, PhD** (UTHSC-Houston)
- Moderators:**
- **Kathryn Cunningham, PhD** (UT Medical Branch - Galveston)
 - **Jennifer Potter, PhD, MPH** (UTHSC-San Antonio)
- 10:20 am - 10:30 am **Break**



The University of Texas System

10:30 am - 11:30 am

Battling Neurodegenerative Disorders

- *“Epidemiology of Dementia: Challenges and Opportunities Ahead”* - **Claudia Satizabal, PhD** (UTHSC-San Antonio)
- *“Biology of Alzheimer’s and Related Dementia”* - **Myriam Fornage, PhD** (UTHSC-Houston)
- *“TAU Protein Aggregated Polymorphs in Neurovegetative Diseases”* - **Rakez Kayed, PhD** (UT Medical Branch - Galveston)
- *“Restorative Treatment for Communication in Language-led Dementia”* - **Maya Henry, PhD, CCC-SLP** (UT Austin)

Moderators:

- **Claudia Satizabal, PhD** (UTHSC-San Antonio)
- **Gladys Maestre, MD, DM** (UT Rio Grande Valley)

11:30 am - 12:30 pm

Autism and Other Neurodevelopmental Disorders

- *“Is ASD Increasing? Its Meaning and Implications in Public Health”* - **Young Shin Kim, MD, PhD** (UT Austin)
- *“Novel Approaches in Human Neuroimaging to Understand the Brain in Autism”* - **Anila D’Mello, PhD** (UT Southwestern)
- *“Advances in Understanding and Treating Pediatric Epilepsy”* - **Lena Nguyen, PhD** (UT Dallas)
- *“Genotype: Phenotype Correlations Suggest Disparate Functions of HCFC1 during Brain Development”* - **Anita Quintana, PhD** (UT El Paso)

Moderators:

- **Jenny Hsieh, PhD** (UT San Antonio)
- **Young Shin Kim, MD, PhD** (UT Austin)

12:30 pm - 1:15 pm

Lunch and Networking

1:15 pm - 2:15 pm

Tackling Mood Disorders and Suicide

- *“A Circuit-Focused Treatment Approach for Mood Disorders”* - **Greg Fonzo, PhD** (UT Austin)
- *“TX-YDSRN and Longitudinal Studies in Depression”* - **Madhukar Trivedi, MD** (UT Southwestern)
- *“Interplay Between Mitochondria and Cognition in Bipolar Disorder”* - **Giselli Scaini, PharmD, PhD** (UTHSC-Houston)
- *“Neural Circuits Involved in Depression”* - **Steve Shabel, PhD** (UT Southwestern)

Moderators:

- **Madhukar Trivedi, MD** (UT Southwestern)
- **Jorge Almeida, MD, PhD** (UT Austin)



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2:15 pm - 3:25 pm

Innovations in the Neurobiology and Management of Pain

- *“Impact of Pain on Patients and Opportunities for Clinical Translational Work”* - **Ken Hargreaves, DDS, PhD** (UTHSC-San Antonio)
- *“Strength of Pain Research in TX: Opportunities for Advancement and Training”* - **Carmen Dessauer, PhD** (UTHSC-Houston)
- *“Pain Therapeutics Development in Texas: Entrepreneurship and Industry Collaboration”* - **Peter Grace, PhD** (MD Anderson)
- *“Targeting Ion Channels in Pain: Navigating the Texas Biotech Ecosystem toward Technology Commercialization”* - **Fernanda Laezza, MD, PhD** (UT Medical Branch - Galveston)
- *“Federal Funding for Multi-Disciplinary Collaborative Pain Research”* - **Stan McHardy, PhD** (UT San Antonio)

Moderators:

- **Theodore Price, PhD** (UT Dallas)
- **Robert Messing, MD** (UT Austin)

3:25 pm - 3:30 pm

Closing Remarks

William Dauer, MD, Co-Chair
UT Southwestern