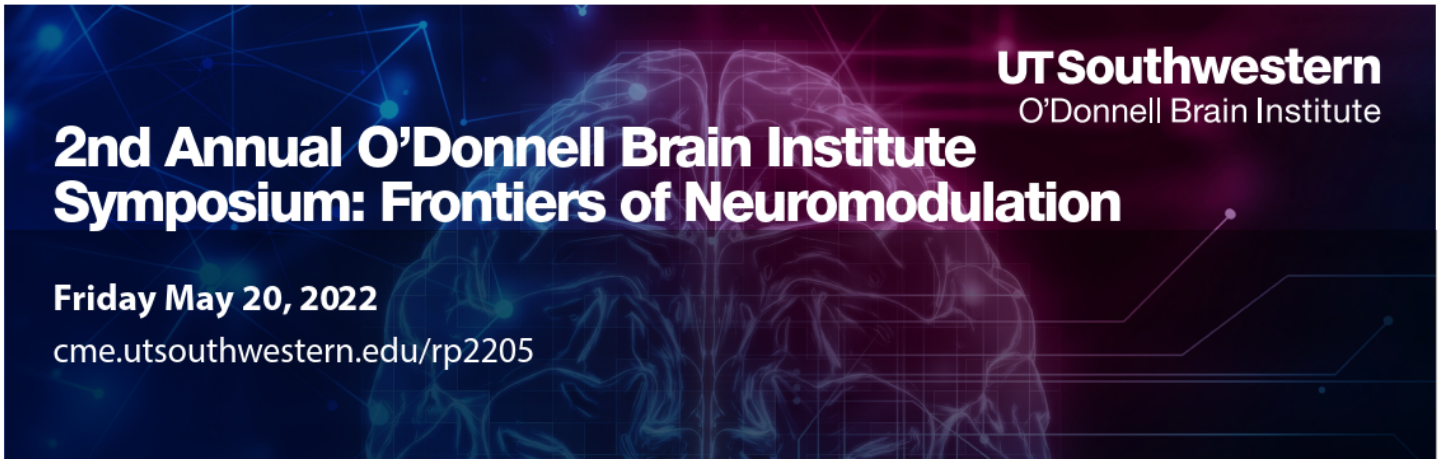


PURPOSE AND CONTENT

Neuromodulation therapy adjusts nerve activity with the potential to help many types of health conditions, from psychiatric disorders to cardiovascular illness. Recent innovations in neuromodulation devices have led to breakthroughs in treating disease and improving human health. This symposium will bring together scientists currently investigating the application of brain stimulation technologies to solve a variety of clinical challenges.

The goal of this symposium is to engage clinicians and researchers from different disciplines to present current work and open discussion on solutions and challenges treating cognitive and motor symptoms. Additionally, this symposium aims to educate the UT Southwestern brain science community about current state-of-the-art approaches and to stimulate discussion that will advance new approaches to solving problems that draw on the broad expertise of our presenters.

EDUCATIONAL OBJECTIVES

Upon completion of this activity, participants should be able to:

- *Expand their knowledge of invasive and non-invasive neuromodulation mechanisms and the clinical effectiveness of therapies for affective disorders. (Sessions 1 and 2)*
- *Compare and contrast results from models of invasive and non-invasive neuromodulation therapies for memory and learning disorders (Sessions 3 and 4)*
- *Relate knowledge of basic neural genetics in research (Session 5)*
- *Describe progress and gaps in invasive neuromodulation as a therapy to regain lost motor function (Session 6)*

TARGET AUDIENCE

This symposium is designed for and open to physicians and others involved in neuromodulation and clinical care of affective disorders, memory and learning disorders, and motor function disorders.

SPONSORED BY

UT Southwestern Peter O'Donnell Jr. Brain Institute and the UT Southwestern Office of Continuing Medical Education.

ACCREDITATION AND DESIGNATION STATEMENT

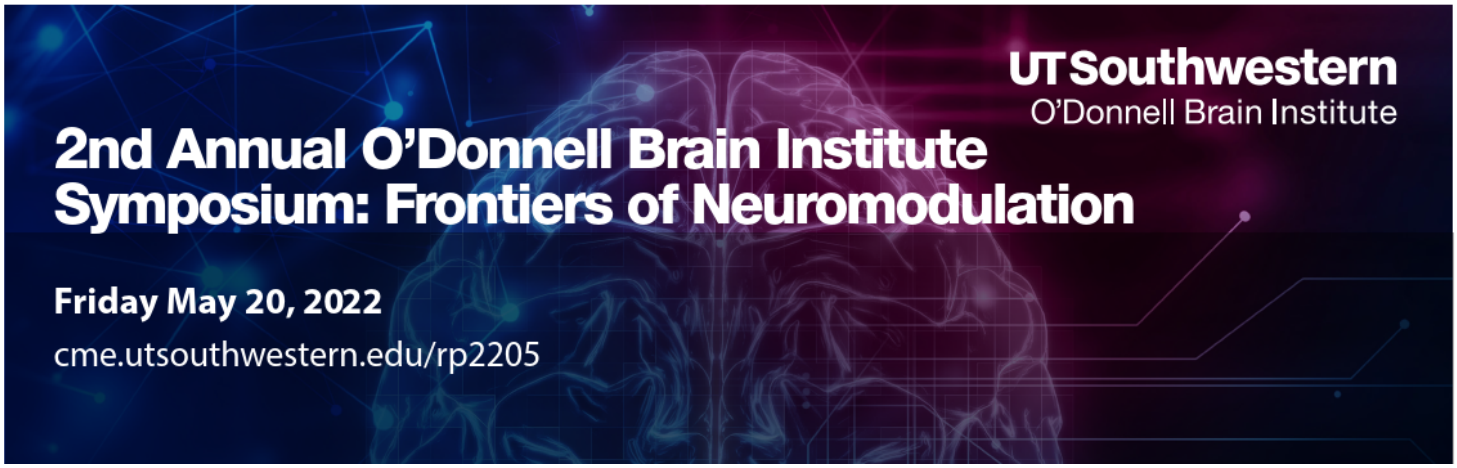
The University of Texas Southwestern Medical Center is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

The University of Texas Southwestern Medical Center designates this live educational activity for a maximum of 5.5 *AMA PRA Category 1 Credit™*. Physicians should only claim credit commensurate with the extent of their participation in the activity.

The University of Texas Southwestern Medical Center certifies that non-physicians will receive an attendance certificate stating that they participated in the activity that was designated for 5.5 *AMA PRA Category 1 Credit™*.

EVALUATIONS & CERTIFICATES

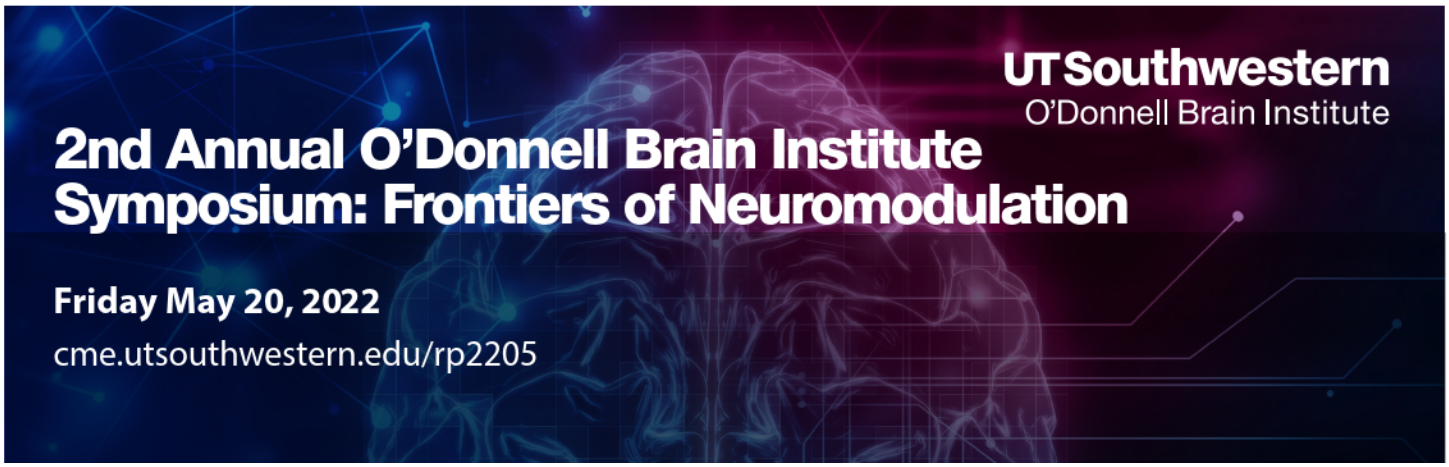
You will receive an email next week with a link and instructions for accessing and completing the online course evaluation. Once the evaluation is completed, you will be able to claim credit and view/download/ print your CME Certificate or Certificate of Attendance.



Friday, May 20, 2022

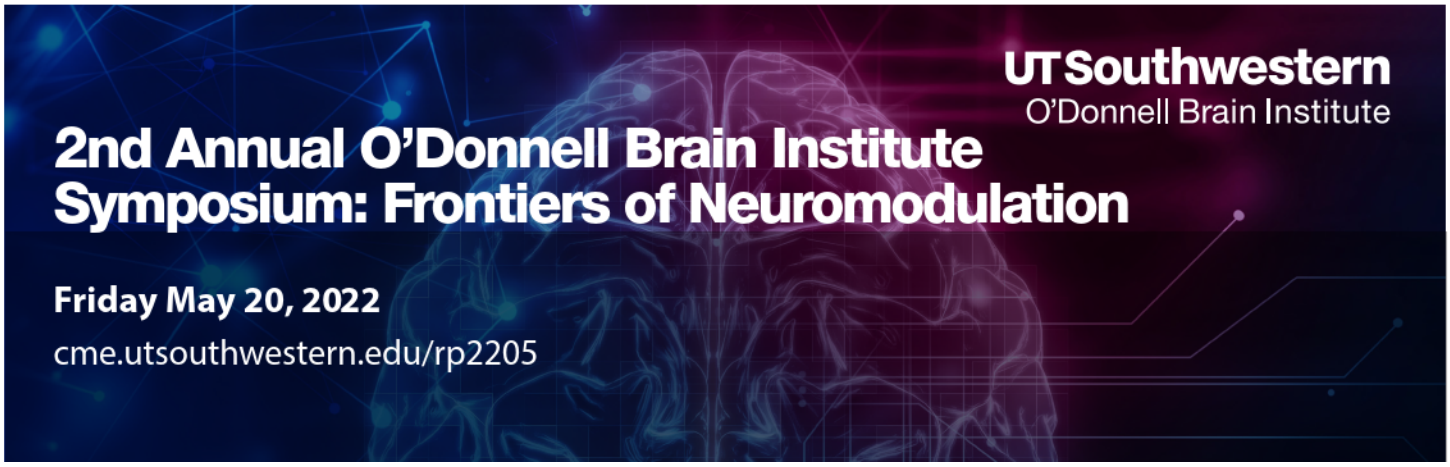
TIME		TOPIC	SPEAKER
8 a.m.	8:15 a.m.	**Opening Remarks**	William Dauer, M.D. ; Bradley Lega, M.D.
Session 1 - Invasive Neuromodulation for Affective Disorders			
8:15 a.m.	8:45 a.m.	**Closed Loop Approaches to Psychiatric DBS: From Diagnoses to Cognitive Domains**	Alik Widge, M.D.
8:45 a.m.	9:15 a.m.	**DBS for Intractable OCD**	Wayne Goodman, M.D.
9:15 a.m.	9:45 a.m.	**Model-based neural decoding and control systems for brain stimulation**	Maryam Shanechi, Ph.D.
9:45 a.m.	10 a.m.	BREAK	
Session 2 - Non-invasive Neuromodulation for Affective Disorders			
10 a.m.	10:30 a.m.	**Advancements in quantifying and modulating neural circuit dysfunction in substance use disorders**	Travis Baker, Ph.D.
10:30 a.m.	11 a.m.	**Using personalized functional networks to understand development, cognition, and psychopathology**	Theodore Satterthwaite, M.D.
11 a.m.	1 p..m.	BREAK (Extra Q&A Time)	

Agenda Continues on Next Page



Friday, May 20, 2022

TIME		TOPIC	SPEAKER
Session 3 - Invasive Neuromodulation for Memory			
1 p.m.	1:30 p.m.	**Neural Mechanisms of Direct Electrical Stimulation to the Human Brain**	Sydney Cash, M.D.
1:30 p.m.	2 p.m.	**Lessons learned from pursuing the invasive neuromodulation for memory**	Bradley Lega, M.D.
2 p.m.	2:15 p.m.	BREAK	
Session 4 - Non-Invasive Neuromodulation for Memory Disorders			
2:15 p.m.	2:45 p.m.	**Network-targeted stimulation to test mechanisms for episodic memory**	Joel Voss, Ph.D.
Session 5 - Neuromodulation and gene expression			
2:45 p.m.	3:15 p.m.	**Human gene networks linked with cognition: potential targets for neuromodulation**	Stefano Berto, Ph.D.
3:15 p.m.	3:30 p.m.	BREAK	
Session 6 - Non-invasive Neuromodulation for Motor Restoration			
3:30 p.m.	4 p.m.	**Recovery of Locomotion with Epidural Stimulation**	Susan Harkema, Ph.D.
4 p.m.	4:30 p.m.	**Novel targets for neurostimulation protocols to augment behavioral performance**	Rachel Kae Spooner, Ph.D.
4:30 p.m.		FINAL REMARKS & ADJOURN	Bradley Lega, M.D.



SYMPOSIUM FACULTY

INSTITUTE DIRECTOR

William Dauer, M.D.
Director, Peter O'Donnell Jr. Brain Institute
Professor, Neurology and Neuroscience
UT Southwestern Medical Center
Dallas, TX

COURSE DIRECTOR

Bradley Lega, M.D.
Associate Professor
Department of Neurological Surgery
UT Southwestern Medical Center
Dallas, TX

SPEAKERS

Travis Baker, Ph.D.
Assistant Professor
Center for Molecular and Behavioral Neuroscience
Rutgers University
Newark, NJ

Stefano Berto, Ph.D.
Assistant Professor
College of Medicine (Neuroscience)
Medical University of South Carolina
Charleston, SC

Sydney Cash, M.D.
Associate Professor of Neurology
Harvard Medical School
Assistant Professor in Neurology
Massachusetts General Hospital
Boston, MA

Wayne Goodman, M.D.
Professor
Department of Psychiatry and Behavorial Sciences
Baylor College of Medicine
Houston, TX

SPEAKERS (continued)

Susan Harkema, Ph.D.
Professor
Department of Neurological Surgery, Anatomical Sciences & Neurobiology
University of Louisville
Louisville, KY

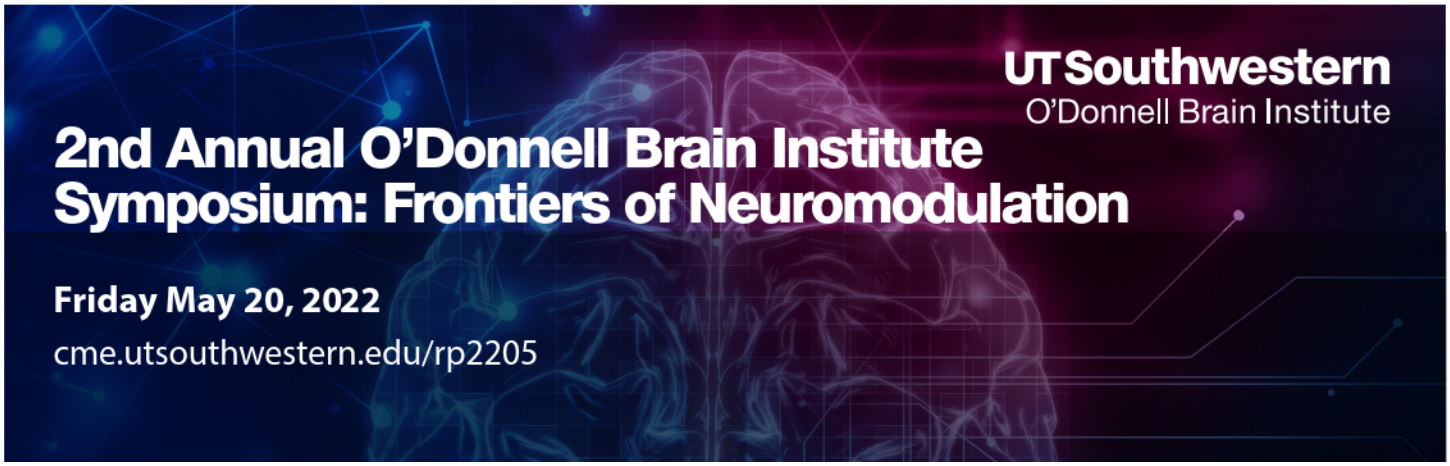
Theodore Satterthwaite, M.D.
Associate Professor of Psychiatry
Director, Penn Lifespan Infomatics and Neuroimaging Center
Perelman School of Medicine
University of Pennsylvania
Philadelphia, PA

Maryam Shanechi, Ph.D.
Associate Professor
Department of Electrical and Computer Engineering
University of Southern California
Los Angeles, CA

Rachel Spooner, Ph.D.
Institute for Clinical Neuroscience and Medical Psychology
Heinrich-Heine-Universitat Dusseldorf
Duseeldorf, Germany

Joel Voss, Ph.D.
Professor of Neurology
Director, Center NOIR
(Center for Neurocognitive Outcomes Improvement Research)
University of Chicago
Chicago, IL

Alik Widge, M.D.
Assistant Professor
Department of Psychiatry
University of Minnesota Medical School
Minneapolis, MN



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The following is a listing of all individuals that contributed to the educational content of this activity and any reported financial relationships within the last 24 months:

NAME	ROLE	RELATIONSHIP/COMPANY
Travis Baker	Speaker	None
Stefano Berto	Speaker	None
Sydney Cash	Speaker	Professional Services: Beacon Biosignals, Inc. - Advisor (Topic: Use of AI/machine learning in EEG and in the development of small EEG systems)
William Dauer	Committee member, Planner	None
Wayne Goodman	Speaker	Grant or Contract: Research - Biohaven, Medtronic Financial Support: Biohaven - consulting
Susan Harkema	Speaker	None
Bradley Lega	Course Director, Peer reviewer, Planner	None
Nader Pouratian	Committee member	Independent Contractor: Abbott Laboratories, Boston Scientific, Sensoria Therapeutics
Theodore Sattwerthwaite	Speaker	None
Maryam Shanechi	Speaker	None
Rachel Spooner	Speaker	None
Joel Voss	Speaker	None
Alik Widge	Speaker	Grant or Contract: Medtronic - device donations Professional Services: Dandelion Science - consulting
Huda Zoghbi	Speaker	None
Mary-Colette Lybrand	Planner (OBI Staff)	None
Mark Vinciguerra	Planner (CME Staff)	None