Center for Research and Training in the Sciences (UTSA), Institute for Integration of Medicine & Science (UTHSA), Translational Science Graduate Program, & UTSA-UTHSA Joint Graduate Program in Biomedical Engineering invite you to attend

Seminars in Translational Research

Presents

Nanomagnetic Actuators for Neuromodulation

The ability to modulate neural activity on-demand is essential for understanding the basic biology of neural circuit dynamics and to develop novel therapies for neurological disorders and psychiatric conditions. Existing technologies for the control of neural circuits offer only limited possibilities. In this seminar, I will give an overview of our recent results in the development of novel magnetic nanotechnologies for the modulation of biological signaling. I will focus on modulation of neuronal activity through magnetothermal, magnetomechanical and chemomagnetic nanoactuation.

magnetomechanical and chemomagnetic nanoactuation. Finally, I will review the current challenges, limitations and prospects of magnetic nanotechnologies in neuroengineering.



Gabriela Romero Uribe, PhD

Margie and Bill Klesse Assistant Professor in Chemical Engineering Department of Biomedical Engineering and Chemical Engineering BME Joint Graduate Program UTSA & UTHSA Brain Health Consortium University of Texas at San Antonio



Friday, September 22nd, 2023 Virtually from 9:00 AM - 10:00 AM

For information on participating in the current monthly seminar, please head to <u>https://utsa.edu/crts/strech/</u> or **scan the QR code** below



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