

UTHealth Neuroscience Research Center  
and  
UTHealth Graduate School of Biomedical Sciences

**Current Topics in the Neurobiology of Disease - GS14 1021**

***Neuromodulation: Principles, Methods and Clinical Applications***

Directors: Joao L. de Quevedo, M.D., Ph.D. and John H. Byrne, Ph.D.

***Course Description***

This course is an integrated approach to neurological diseases, which includes background information as well as the diagnosis, the treatment, and the biological mechanisms of the disease under study. The topic for fall 2019 is "**Neuromodulation: Principles, Methods and Clinical Applications**". The International Neuromodulation Society defines therapeutic neuromodulation as "the alteration of nerve activity through targeted delivery of a stimulus, such as electrical stimulation or chemical agents, to specific neurological sites in the body." In appropriate patients, this growing class of therapies, in common use since the 1980s, can help restore function or relieve symptoms that have a neurological basis. This course focuses on understanding the neuromodulation principles and methods as well as its clinical applications. Presentations will review the latest findings from preclinical and human studies, detailing mechanisms by which neuromodulation strategies could treat brain disorders. This course is open to graduate students, medical students, residents and postdoctoral fellows.

***Lecture Time and Location***

*Tuesdays, 12:00 p.m. – 1:00 p.m.*

*McGovern Medical School at UTHealth in MSB 7.037*

***Course Requirements:***

Attendance

Completion of final essay (based on a course lecture, Postdoctoral fellows are exempt)

***Directors:***

**John H. Byrne, Ph.D.** - June and Virgil Waggoner Chair, Neurobiology & Anatomy

**Joao L. de Quevedo, M.D., Ph.D.** - Vice Chair For Faculty Development & Outreach, Director, Translational Psychiatry Program, Director, Treatment-Resistant Depression Clinic Email: [Joao.L.DeQuevedo@uth.tmc.edu](mailto:Joao.L.DeQuevedo@uth.tmc.edu)

***NRC Contact:***

Donna Wood - Email: [donna.wood@uth.tmc.edu](mailto:donna.wood@uth.tmc.edu) or phone: 713-500-5633