Educational Objectives

This year's BRAIN Conference will continue to focus on strategies to teach neuroscience and incorporate a modern neuroscience perspective into clinical care. This all-day conference will include a series of morning and afternoon workshops designed to:

- 1) Empower faculty with or without a neuroscience background to feel confident that they can teach neuroscience effectively;
- 2) Engage conference attendees to participate as both student and instructor using new and innovative teaching methods; and
- 3) Provide programs with resources for how they might address, teach, and assess neuroscience-specific milestones.

Through large and small group activities, attendees will receive training in various new and creative approaches to teaching neuroscience.

Practice Gap

Psychiatry is in the midst of a paradigm shift. The diseases we treat are increasingly understood in terms of the complex interactions between genetic and environmental factors and the development and regulation of neural circuitry. Yet most psychiatrists have a relatively minimal knowledge of neuroscience. This may be due to many factors, including the difficulty of keeping pace with a rapidly advancing field or a lack of exposure to neuroscience during training. To date, neuroscience has generally not been taught in a way that is engaging, accessible, and relevant to patient care. Much of neuroscience education has remained lecture-based without employing active, adult learning principles. It is also frequently taught in a way that seems devoid of clinical relevance, disconnected from the patient's story and life experience, and separated from the importance of the therapeutic alliance. Regardless of the reason, what has resulted is an enormous practice gap: despite the central role that neuroscience plays in psychiatry, we continue to under-represent and fail to integrate this essential perspective in our work.

Scientific Citations

1. Insel, T. The future of psychiatry (= Clinical Neuroscience). April 20, 2012.

https://www.nimh.nih.gov/about/directors/thomas-insel/blog/2012/the-future -of-psychiatry-clinical-neuroscience.shtml. Accessed October 24th, 2017.

- 2. Ross, DA, Travis, MJ, Arbuckle, MR. "The future of psychiatry as clinical neuroscience: Why not now?" JAMA Psychiatry, 2015; 72(5):413-414. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5347976/
- 3. Arbuckle, MR, Travis, MJ, Ross, DA. "Integrating a neuroscience perspective into clinical psychiatry today". JAMA Psychiatry, 2017; 74(4):313-314.

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5501322/

Workshop Abstract

"I don't know what happened in education... somewhere between kindergarten and medical education we decided that learning shouldn't be fun..."

-- Melissa Arbuckle, AADPRT President, 2020-2021

Over the past two decades, advances in neuroscience have dramatically enhanced our understanding of the brain and of the neurobiological basis of psychiatric illness. While biological models of mental illness once emphasized "chemical imbalances", modern perspectives increasingly incorporate the role of genetics and epigenetics, a more nuanced understanding of neurotransmitters and corresponding second messenger systems, the importance of neuroplasticity, and the functional dynamics of neural circuits. New methods and technologies are leading to new discoveries and paving the way to new frontiers in diagnosis and treatment. As educators, we have the responsibility to train the leaders of this new world.

Yet for many programs, implementing an effective neuroscience curriculum has been fraught. Determining which content to prioritize is challenging - especially in the context of the many other pressing issues in graduate medical education today. Many programs lack faculty to teach neuroscience in the classroom and who can role model its applicability to patient care. Students may feel alienated from material that seems overly complex and lacking in overt clinical relevance. At its worst, neuroscience teaching may feel rote if not torturous.

It all changes today. This year's conference will address some of the most cutting-edge topics in psychiatry and neuroscience. Whether you're starting from scratch or already have a fully developed curriculum, this year's conference will help you move your program forward. Get ready for our most memorable set of teaching and learning resources that promises to be relevant, engaging, and -- yes -- fun.

List first name, last name, degrees/credentials of co-presenters

David Ross, MD, PhD (leader); Joseph Cooper, MD (co-leader); Joan Anzie, MD; Melissa Arbuckle, MD, PhD; Belinda Bandstra, MD, MA; Adrienne Bentman, MD; Robert Boland, MD; Lisa Catapano, MD, PhD; Joyce Chung, MD; Deborah Cowley, MD; Sallie DeGolia, MD, MPH; Jane Eisen, MD; Elizabeth Fenstermacher, MD; Marshall Forstein, MD; Samantha Friend, MD, PhD; Manesh Gopaldas, MD; Erick Hung, MD; Sansea Jacobson, MD; Michael Jibson, MD, PhD; Sussann Kotara, MD; Andrew Novick, MD, PhD; Lindsey Pershern, MD; Sanjai Rao, MD; Aaron Reliford, MD; Demian Rose, MD, PhD; Maggie Schneider, MD, PhD; Elizabeth Schwartz, MD, PhD; Elise Scott, MD; Sourav Sengupta, MD; Desiree Shapiro, MD; Amanda Silverio, MD; Asher Simon MD; Maja Skikic, MD; Michael Travis, MD; Randon Welton, MD; Sean Wilkes, MD, MSc