Workshop #2: The Human Brain and Factors Affecting the Neurobiological Development From Adolescent to Adulthood Exploring the Intersection of Mental Illness, Addiction, and the Role of Laboratory Science

Date: Monday, October 30 Time: 8:00 AM – 12:00 PM

Cost:

MEMBER RATES				
Early Bird Registration June 1 – Aug 31	Late Registration Begins Sept 1	On-site Registration Begins October 11		
\$150	\$175	\$200		
NON – MEMBER AND DAILY RATES				
Early Bird Registration	Late Registration	On-site Registration		
June 1 – Aug 31	Begins Sept 1	Begins October 11		
\$200	\$225	\$250		

#### Chairs

Michael A. Wagner, PhD, F-ABFT Laboratory Director Witham Health Services mwagner@witham.org

Thomas C. Kupiec, PhD
President and CEO
ARL Bio Pharma and DNA Solutions
tkupiec@arlok.com

### Abstract

This workshop examines the environmental and genetic factors that impact the neurobiological development of the human brain. Trajectory studies are being conducted by scientists known as the ABCD (Adolescent Brain Cognitive Development) Study. The presentation of this study will focus on factors that impact the comorbid development of mental illness and addiction. Additionally, this workshop will present how animal models of dual diagnosis compliment human studies in understanding the bidirectional causality, shared neurocircuitry, and interactive genetics involved with these comorbid illnesses. Finally, this workshop will present clinical treatment modalities of the adolescent patient population for cannabis and alcohol use disorders. Underscored in this workshop will be the clinical tools used to care for this population and the central role clinical/forensic toxicology plays.

### **Learning Objectives**

- 1. The audience member will be able to create a more thorough understanding of the factors that impact early development of mental illness and addiction.
- 2. The participant will be able to use this information when evaluating case work interpretation.
- **3.** The audience member will be able to create laboratory policies that will assist the clinician or forensic/court system with establishing best practices in the use of laboratory science.

# **Faculty**

Jessica Megan Ross, PhD
Assistant Professor, Psychiatry-Substance Dependence
CU Medicine Psychiatry – Outpatient Clinic

R. Andrew Chambers, MD
Associate Professor of Psychiatry
Director, Laboratory for Translational Neuroscience of Dual Diagnosis & Development
Director, IU Addiction Psychiatry
Indiana University School of Medicine

Jesse D. Hinckley, MD, PhD Assistant Professor University of Colorado School of Medicine

Michael A. Wagner PhD, F-ABFT Laboratory Director Witham Health Services

# **Audience Knowledge Level**

Intermediate

# **Workshop Agenda**

Time	Topic	Speaker
8:00 – 8:10 AM	Introduction	Thomas C. Kupiec
8:10 – 9:05 AM	ABCD Study	Jessica Megan Ross
9:10 – 10:00 AM	Genes and Experiences Collide in the Explosion of Addiction and Mental Illness	R. Andrew Chambers
10:00 – 10:30 AM	Break	
10:30 – 11:20 AM	Adolescent cannabis use: Neurodevelopmental consequences and treatment considerations	Jesse D. Hinckley
11:25 – 11:50 AM	Laboratory Science Clinical/Forensic Toxicology in support of clinical and judicial services	Michael A. Wagner
11:50 - 12:00	Panel Discussion	Thomas C. Kupiec