MAURY STRAUSS DISTINGUISHED PUBLIC LECTURE Presented by the Fralin Biomedical Research Institute at VTC



EMERY BROWN, M.D., Ph.D.

Edward Hood Taplin Professor of Medical Engineering and of Computational Neuroscience

Director, Harvard –MIT Health Sciences Technology Program Massachusetts Institute of Technology

Warren M. Zapol Professor of Anesthesia Harvard Medical School, Massachusetts General Hospital

Deciphering the Dynamics of the Unconscious Brain Under General Anesthesia

General anesthesia is a drug-induced state in which a patient is rendered insensate in order to safely and humanely undergo surgery or an invasive diagnostic procedure. During the last 10 years, the study of the neuroscience of anesthetic drugs has been an active area of research. In this lecture Dr. Brown will show how anesthetics create altered states of arousal by creating oscillations that impede how the various parts of the brain communicate. These oscillations, which are readily visible in the electroencephalogram (EEG), change systematically with anesthetic dose, anesthetic class and patient age. Dr. Brown will show how the EEG oscillations can be used to monitor the brain states of patients receiving general anesthesia, manage anesthetic delivery and learn about fundamental brain physiology.

THURSDAY, MAY 6, 2021 at 5:30 p.m.

This virtual lecture will be webcast live at <u>fbri.vtc.vt.edu/live-webcast.</u> Attendees can also register through our website to access a Zoom link for this presentation.

