BIOSTATISTICS SEMINAR

Uncovering the Mechanisms of General Anesthesia: Where Neuroscience Meets Statistics

General anesthesia is a drug-induced, reversible condition involving unconsciousness, amnesia (loss of memory), analgesia (loss of pain sensation), akinesia (immobility), and hemodynamic stability. I will describe a primary mechanism through which anesthetics create these altered states of arousal. Our studies have allowed us to give a detailed characterization of the neurophysiology of loss and recovery of consciousness, in the case of propofol, and we have demonstrated that the state of general anesthesia can be rapidly reversed by activating specific brain circuits. The success of our research has depended critically on tight coupling of experiments, statistical signal processing and mathematical modeling.

Emery N. Brown, PhD

Edward Hood Taplin Professor of Medical Engineering and of Computational Neuroscience, Massachusetts Institute of Technology

Thursday February 6, 2020   **3:30 pm - 4:30 pm**
Blue Cross and Blue Shield of North Carolina Foundation Auditorium

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