EMERY N. BROWN, M.D., PH.D.
DECIPHERING THE DYNAMICS OF THE UNCONSCIOUS BRAIN
UNDER GENERAL ANESTHESIA

FEBRUARY 11, 2016
4:00 P.M.
208 LIGHT HALL

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ANESTHESIOLOGY

Upcoming Discovery Lecture:

GILBERT S. OMENN, M.D., PH.D.
Director, Center for Computational Medicine and Bioinformatics (CCMB)

February 25, 2016
208 Light Hall / 4:00 P.M.
General anesthesia is a drug-induced, reversible condition comprised of five behavioral states: unconsciousness, amnesia (loss of memory), analgesia (loss of pain sensation), akinesia (immobility), and hemodynamic stability with control of the stress response. The mechanisms by which anesthetics induce unconsciousness relate to the extent to which these agents create oscillations in key brain circuits that impair the ability of these regions to communicate. These oscillations are readily discernible in the EEG recorded from patients under general anesthesia and sedation. Our results show that it is now possible to have a detailed neurophysiological understanding of the brain under general anesthesia, and that this understanding, can be used to monitor the anesthetic state more accurately and design more principled strategies for drug delivery.