A-756 Room D, 10/17/2000 9:00 AM - 11:00 AM (PS)
Presynaptic Calcium Channels Coupled to Glutamate Release Are Less Sensitive than Sodium Channels to Isoflurane or Propofol *Hugh C. Hemmings, Jr, MD,PhD; Martin L. Birch, BS; Ratnakumari Lingamaneni, PhD, Anesthesiology & Pharmacology, Weill Medical College of Cornell University, New York, NY, United States*

A-757 Room D, 10/17/2000 9:00 AM - 11:00 AM (PS)
Epidural Lidocaine Decreases End-Tidal Sevoflurane Required to Suppress Level of Consciousness as Measured by the Bispectral Index (BIS) *Peter S. Hodgson, MD; Spencer S. Liu, MD, Anesthesiology, Virginia Mason Medical Center, Seattle, WA, United States.* Epidural lidocaine decreases the sevoflurane needed to suppress level of consciousness as measured by BIS.

A-758 Room D, 10/17/2000 9:00 AM - 11:00 AM (PS)
Nitrous Oxide Induced Met-enkephalin Release Provokes Dopamine Release in Rat Adrenal Medulla Cultured In Vitro *Shin-ichi Inomata, MD, PhD; Mervyn Maze, MB, ChB, FRCP; Toshikazu Hashimoto, MD; Matthew Jones, MB, BS, FRCA; Masahiko Fujinaga, MD, Magill Department of Anaesthetics, Chelsea and Westminster Campus, Imperial College of Science, Technology and Medicine, University of London, London, United Kingdom*

A-759 Room D, 10/17/2000 9:00 AM - 11:00 AM (PS)
The Non-Linear EEG Dynamics Increase with Depth of Anesthesia *Christian Jeleazcov, M.D.; Frank Bremer, M.D.; Helmut Schwilden, M.D.,Ph.D., Department of Anesthesiology, University of Erlangen, Erlangen, Germany.* The non-linear EEG dynamics were studied during different anesthesia states. The frequency of non-linear EEG epochs increases with anesthesia depth, but it remains under 5%.

A-760 Room D, 10/17/2000 9:00 AM - 11:00 AM (PS)
Effects of Convulsant and Depressant Barbiturate Stereoisomers on Neuronal Nicotinic Acetylcholine Receptors in Rat CNS Neurons *Y. Kamiya, M.D.; T. Andoh, M.D.; I. Watanabe, M.D.; T. Higashi, M.D.; F. Okumura, M.D., Anesthesiology, Yokohama City University School of Medicine, Yokohama, Kanagawa, Japan.* Both convulsant and depressant barbiturates equally inhibit neuronal nAChRs in rat CNS neurons

A-761 Room D, 10/17/2000 9:00 AM - 11:00 AM (PS)
Low Dose Lidocaine Rapidly Inhibits Axonal Transport in Cultured Mouse Dorsal Root Ganglion Neurons *Akifumi Kanai, MD; Hiromi Hiruma, MD; Tadashi Kawakami, MD; Sumio Hoka, MD, Anesthesiology and Physiology, Kitasato Univ. School of Medicine, Sagamihara, Japan.* Low dose lidocaine decreased axonal transport in DRG neurons due to Ca^{2+} influx and activation of CAM II kinase.

A-762 Room D, 10/17/2000 9:00 AM - 11:00 AM (PS)
Mitochondrial Effects on Ethanol Sensitivity *Ernst-Bernhard Kayser, PhD; Phil G. Morgan, MD; Margaret M. Sedensky, MD, Anesth., Univers. Hosp., Cleveland, OH, United States.* The primary defect of a nematode hypersensitive to anesthetics is a malfunction of Complex I. However, comparing wildtype and mutant the respiratory capacity of Complex I does not correlate to the anesthetic state.

A-763 Room D, 10/17/2000 9:00 AM - 11:00 AM (PS)
Inhibitory Effects of Isoflurane and Nonimmobilizing Halogenated Compounds on Neuronal Nicotinic Receptors *T. Matsuura, M.D.; T. Andoh, M.D.; Y. Kamiya, M.D.; H. Itoh, M.D.; F. Okumura, M.D., Anesthesiology, Yokohama City University of Medicine, Yokohama, Japan.* Inhibition of nAChRs in rat CNS neurons by halogenated agents correlates with their amnesic effects but not anesthetic effects.

A-764 Room D, 10/17/2000 9:00 AM - 11:00 AM (PS)
Physostigmine Reverses Unconsciousness during a Steady-State Infusion of Midazolam *Pascal Meuret, MD; Gerard Audibert, MD-PHD; Pierre Fiset, MD; Steven Backman, MD-PHD; Marie C. Laxenaire, MD, Anesthesia Department, Hopital Central, Nancy, France.* Unconsciousness was associated with a decrease of BIS: 96% to 54%. Physostigmine reversed unconsciousness in all 7 subjects (BIS 83%).

A-765 Room D, 10/17/2000 9:00 AM - 11:00 AM (PS)
Site of Action of Propofol on Muscarinic M1 Receptor-Mediated Signaling in *Xenopus* Oocytes *Yoshihisa Nagase, M.D.; Koji Sumikawa, M.D., Anesthesiology, Nagasaki University School of Medicine, Nagasaki, Japan.* This study clarifies the inhibitory effect and the site of action of propofol on muscarinic M1 receptor-mediated signaling in *Xenopus* oocytes.

A-766 Room D, 10/17/2000 9:00 AM - 11:00 AM (PS)
Midazolam Does Not Inhibit Implicit Memory Formation in Human Volunteers Not Undergoing Surgery *Anthony N. Passannante, MD; Jason D. Arndt, MA; Elliot L. Hirshman, PhD, Anesthesiology, UNC-Chapel Hill, Chapel Hill, NC, United States.* Midazolam .03mg/kg was administered to 48 human volunteers. Explicit and implicit memory was assessed. Midazolam impaired explicit memory and spared implicit memory.

A-767 Room D, 10/17/2000 9:00 AM - 11:00 AM (PS)
Mice with Glycine Receptor Subunit Mutations Are Both Sensitive and Resistant to Enflurane *Joseph J. Quinlan, M.D.; Leonard L. Firestone, M.D.; Carolyn Ferguson, B.S.; Kate Jester; Gregg E. Homanics, Ph.D., Dept. of Anes./CCM, U. of Pittsburgh, Pittsburgh, PA,.* Glycine receptor mutant mice were more sensitive to enflurane in the LORR assay, but resistant to enflurane in the tail clamp assay.

A-768 Room D, 10/17/2000 9:00 AM - 11:00 AM (PS)
Inhalational Anesthetics Stabilize the Interaction between G-protein Subunits *Mario J. Rebecchi, Ph.D.; John Woehrle, B.S.; Donna Miller, B.S.; Rakesh Gupta, M.D.; Srinivas N. Pentyala, Ph.D., Anesthesiology, School of Medicine, State University of New York, Stonybrook, NY, United States.* Inhalational anesthetics promote the affinity between the heterotrimeric G-protein subunits.

A-769 Room D, 10/17/2000 9:00 AM - 11:00 AM (PS)
Contribution of Nitric Oxide, Prostaglandins and Epoxyeicosatrienoic Acids to Isoflurane-Induced Cerebral Hyperemia in Mice *Hui Shen, MD; Anthony G. Hudetz, PhD; Neil E. Farber, MD, PhD; Richard J. Roman, PhD; John P. Kampine, MD, PhD, Anesthesiology, Medical College of Wisconsin, Milwaukee, WI, United States*