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; Masabiko 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, Sagamibara, Japan. Low dose lidocaine decreased axonal transport in DRG neurons due to $\mathrm{Ca}^{2+}$ 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, $O H$, 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, MDPHD; 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 $.03 \mathrm{mg} / \mathrm{kg}$ 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 Gprotein 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

