

- 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 Schwilgen, M.D., PhD., *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. Andob, 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; Tadasbi 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 Ca²⁺ 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. Andob, M.D.; Y. Kamiya, M.D.; H. Itob, 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 Yoshibisa 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. Passanante, MD; Jason D. Arndt, MA; Elliot L. Hirschman, 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. Pentylala, 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*