

Anesthetic Action: Mechanisms of General Anesthesia - Channels & Transporters

A-139 Room 309, 10/18/2000 9:00 AM - 10:30 AM (PD)
A Soluble Substance in Intravenous Bags Inhibits Nicotinic Acetylcholine Receptors Pamela Flood, M.D.; Kristen Coates, B.A., Anesthesiology, Columbia University, New York, NY, United States

A-140 Room 309, 10/18/2000 9:00 AM - 10:30 AM (PD)
Effects of Isoflurane and Halothane on Human Neuronal N-type Calcium Channels Igor M. Nikonorov, MS; Thomas J.J. Blanck, MD, PhD; Esperanza Recio-Pinto, PhD, Anesthesiology, The Hospital for Special Surgery, New York, NY, United States. Halothane and Isoflurane inhibit N-type Ca^{2+} currents and the level of isoflurane inhibition correlates with the degree of G-protein activation.

A-141 Room 309, 10/18/2000 9:00 AM - 10:30 AM (PD)
The Diverse Actions of Volatile and Gaseous Anesthetics on Human-Cloned 5-HT₃ Receptors Expressed in *Xenopus* Oocytes Takabiro Suzuki, M.D.; Hideki Koyama, B.S.; Masabiro Sugimoto, M.D.; Ichiro Uchida, M.D., PhD.; Takashi Mashimo, M.D., PhD., Anesth., Osaka Univ. Med. Sch., Suita, Osaka, Japan. Iso potentiated but Sev, N₂O and Xe inhibited 5-HT₃ receptor function.

A-142 Room 309, 10/18/2000 9:00 AM - 10:30 AM (PD)
Both Sevoflurane and Propofol Affect GABA_A Receptor Binding in Humans Elina Salmi, BM; Kaike Kaisti, MD; Liisa Metsabonkala, MD; Kjell Nogren, PhD; Harry Scheinin, MD, Turku PET Centre, Turku University Hospital, Turku, Finland

A-143 Room 309, 10/18/2000 9:00 AM - 10:30 AM (PD)
Halothane Acts on the Pore Domain of an Intermediate Conductance Ca^{2+} -Activated K^{+} Channel Tsunehisa Namba, M.D., PhD.; Mitsuko Ikeda, M.D.; Takabiro M. Ishii, M.D., PhD.; Kazubiko Fukuda, M.D., PhD., Dept. of Anesthesia, Kyoto University Faculty of Medicine, Sakyo-ku, Kyoto, Japan. Halothane inhibits IK but not SK. Chimeras between IK and SK implicated the pore domain as a site of action.

A-144 Room 309, 10/18/2000 9:00 AM - 10:30 AM (PD)
Sensitivity to Isoflurane Induced in Chimeric Muscarinic Receptors Marcel E. Durieux, MD PhD; Ganesan L. Kamatchi, PhD, Anesthesiology, University of Virginia, Charlottesville, VA, United States. m1 muscarinic receptors, normally unresponsive to isoflurane, are inhibited by the anesthetic when the 3rd intracellular loop is replaced by that of the m3 receptor

A-145 Room 309, 10/18/2000 9:00 AM - 10:30 AM (PD)
A Closer Look at Volatile Anesthetic Interaction with Ion Channel: One Femtosecond a Time Pei Tang, Ph.D.; Igor Z. Zubrzycki, Ph.D.; Yan Xu, Ph.D., Anesthesiology/CCM and Pharmacology, University of Pittsburgh School of Medicine, Pittsburgh, PA. 1.6-ns MD simulations revealed intimate details of halothane interaction with a gramicidin A channel in a fully hydrated DMPC membrane.

A-146 Room 309, 10/18/2000 9:00 AM - 10:30 AM (PD)
Effects of Halothane and Sevoflurane on Sodium-Calcium Exchange in Cardiac Myocytes Inanc Seckin, M.D.; Gary C. Sieck, Ph.D.; Y.S. Prakash, Ph.D., Anesthesiology, Mayo Clinic, Rochester, MN, United States. This study found that clinically-relevant concentrations of halothane, and to a lesser extent sevoflurane, inhibit both influx and efflux mode of sodium-calcium exchange in cardiac myocytes.