ASA ABSTRACTS

A-1341  Room G, 10/17/2000 2:00 PM - 4:00 PM (PS) Interaction between Volatile Anesthetics and Hypoxia in Porcine Tracheal Smooth Muscle Michiaki Yamakage, MD, PhD; Xiangdong Chen, MD; Naoki Tsujiguchi, MD; Yasubiro Kamada, MD; Akiyoshi Namiki, MD, PhD. Anesthesiology, Sapporo Medical University School of Medicine, Sapporo, Hokkaido, Japan. Hypoxia inhibits airway smooth muscle contraction independently of intracellular Ca++.

A-1342  Room G, 10/17/2000 2:00 PM - 4:00 PM (PS) Both PKA and PKG are Essential in Regulating Basal Ciliary Beat Frequency in Rat Tracheal Epithelial Cells Xinhua Zhan, M.D., Ph.D; Decsun Li, M.D., Ph.D; Roger A. Jobsis, M.D., Department of Anesthesiology, Union Affiliated Hospital of Tongji Medical University, Wuhan, Hubei, China. Inhibition of PKA or PKG did not change CBF. Inhibition of both decreased CBF significantly.

Respiration: Airway / Pulmonary Vascular Smooth Muscle


A-1344  Room 309, 10/16/2000 2:00 PM - 3:30 PM (PD) Intravenous Colforsin Daropate Prevents Thiamylal-Fentanyl-Induced Bronchoconstriction Zen'ichi Wajima, MD,PhD; Tatsusuke Yoshikawa, MD,PhD; Akira Ogura, MD,PhD; Kazuyuki Imanaga, MD; Tetsuo Inoue, MD,PhD, Dept. of Anesthesia, Chiba Hokkous Hospital, Nippon Medical School, Inba, Chiba, Japan. After thiamylal and fentanyl, airway resistance unchanged by w. colforsin daropate.

A-1345  Room 309, 10/16/2000 2:00 PM - 3:30 PM (PD) Different Inhibitory Effects of Volatile Anesthetics on T- and L-type Calcium Channels in Airway Smooth Muscle Michiaki Yamakage, MD, PhD; Xiangdong Chen, MD; Naoki Tsujiguchi, MD; Yasubiro Kamada, MD; Akiyoshi Namiki, MD, PhD, Anesthesiology, Sapporo Medical Univ. Sch. of Med., Sapporo, Hokkaido, Japan. Volatile anesthetics have more inhibitory effects on T-type calcium channels.

A-1346  Room 309, 10/16/2000 2:00 PM - 3:30 PM (PD) Effect of Hexanol on Calcium Sensitivity in Airway Smooth Muscle Hayashi Yoshimura, MD; Keith A. Jones, MD; William J. Perkins, MD; Shosuke Takabashi, MD; David O. Warner, MD, Department of Anesthesiology, Mayo Clinic and Foundation, Rochester, MN, United States. Hexanol inhibits agonist-induced Ca++-sensitization in permeabilized airway smooth muscle

A-1347  Room 309, 10/16/2000 2:00 PM - 3:30 PM (PD) Propofol Increases Myofilament Calcium Sensitivity Via Protein Kinase C Activation Satoru Tanaka, MD; Izumi Kondo, MD; Derek Damron, PhD; Paul Murray, PhD, Anesthesia Research, Cleveland Clinic Foundation, Cleveland, OH, United States. Propofol decreases [Ca++], but increases myofilament Ca++ sensitivity in pulmonary artery smooth muscle.

A-1348  Room 309, 10/16/2000 2:00 PM - 3:30 PM (PD) Endothelin-1 Induces Sustained Contraction without Myosin Light Chain Phosphorylation in Porcine Pulmonary Artery Chie Sakihara, M.D., Ph.D.; Tetsuya Kai, M.D., Ph.D.; Shosuke Takabashi, M.D., Ph.D, Department of Anesthesiology, Kyushu University, Fukuoka, Japan. Ca++-sensitive contraction might be mediated by phosphorylation of the protein that is sensitive to H-7 and staurosporine.

A-1349  Room 309, 10/16/2000 2:00 PM - 3:30 PM (PD) Selective Inhibition of the Triphasic HPV Response by Inhalational Anesthetics Bryan E. Marshall, MD; Masami Ozaki, MD; James E. Baumgardner, MD Ph.D; Carol Marshall, Ph.D, Center for Anesthesia Research, University of Pennsylvania Health System, Philadelphia, PA, United States. These studies suggest that isoflurane and halothane inhibit the force sensitization mechanisms of HPV with the greatest potency.

A-1350  Room 309, 10/16/2000 2:00 PM - 3:30 PM (PD) Endogenous Nitric Oxide Does Not Play a Significant Role in the Maintenance of Basal Pulmonary Microvascular Tone Sanjay Bhatia, MB,BS; Paul Murray, PhD; David DeFily, Ph.D, Center for Anesthesiology Research, Cleveland Clinic Foundation, Cleveland, OH, United States. Nitric oxide does not regulate the baseline diameter of 40-140µm pulmonary arteries in vivo.

Respiration: Lung Injury / Cellular Physiology

A-1351  Room 224-226, 10/16/2000 3:30 PM - 5:00 PM (PD) Human Airway Smooth Muscle Expresses miRNA Encoding Seven Subtypes of Adenylly Cyclase Charles W. Emala, M.D; Dingbang Xu, Anesthesiology, Columbia University, New York, NY, United States. Messenger RNA encoding 7 of the 9 known subtypes of adenyly cyclase, the target protein of b-adrenoceptor bronchodilating agents, was identified by RT-PCR in human airway smooth muscle.


A-1353  Room 224-226, 10/16/2000 3:30 PM - 5:00 PM (PD) Nitric Oxide Production and Stimulation of Ciliary Motility in Rat Tracheal Ciliated Epithelial Cells Gotaro Sibata, M.D; Decsum Li, M.D., Ph.D; Akiyoshi Namiki, M.D.; Roger A. Jobsis, M.D, Department of Anesthesia, Kyoto University Hospital, Kyoto, Japan. Nitric oxide production was detected and it was positively correlated with ciliary motility in cultured rat tracheal epithelial cells.

A-1354  Room 224-226, 10/16/2000 3:30 PM - 5:00 PM (PD) Hypoxia Mediates Upregulation of ICAM-1 in Rat Alveolar Macrophages Beatrice Beck-Schimmer, M.D.; Caveh Madjidpour, M.D; Thomas Pasch, M.D.; Ralph C. Schimmer, M.D., Institutes of Anesthesiology and Physiology, University of Zurich, Zurich, Switzerland. Hypoxia upregulates ICAM-1 expression in alveolar macrophages time- and concentration-dependent.