

Respiration

A-1313 Room G, 10/17/2000 2:00 PM - 4:00 PM (PS)
Additional Work of Breathing with Laryngeal Mask Airway in Anesthetized Spontaneous Breathing Patients Gerardo Aguilar, MD; F. Javier Belda, MD, PhD; Antonio Guillen, MD; Marina Soro, MD, PhD; Francisco Jose Marti, MD, PhD, *Anesthesiology and Critical Care, Hospital Clinico Universitario, Valencia, Spain*

A-1314 Room G, 10/17/2000 2:00 PM - 4:00 PM (PS)
The Development of Novel Magnetic Resonance Imaging in the Normal Porcine Lung: Comparison with Standard Methods Margaret Aranda, MD; Rabim Rizi, PhD; Hiroto Hatabu, MD; Alvin Yamamoto; Baumgardner E. James, MD, *Anesthesia, University of Pennsylvania, Philadelphia, PA, United States*. Novel ^3He and gadolinium MRI techniques may be compared with anatomic SPECT and physiologic MIGET data.

A-1315 Room G, 10/17/2000 2:00 PM - 4:00 PM (PS)
Effect of Inhalational Versus Intravenous Anesthesia on Hypoxic Pulmonary Vasoconstriction J.F. Bricbant, MD; S. Brimio-ulle, MD; M. Demets, MD; M. Delcroix, MD, *Laboratory of Pneumology, Catholic University of Leuven, Leuven, Belgium*. Preservation of HPV is not a general characteristic of intravenous anesthetic agents whereas not all potent inhaled anesthetics inhibit HPV.

A-1316 Room G, 10/17/2000 2:00 PM - 4:00 PM (PS)
Prolonged Maximal Breath Oxygenation: Effects on End-Tidal Gases Suvarchala D. Chiravuri, MD; Usbarani Nimmagadda, MD; Ninos J. Joseph, BS; M. Ramez Salem, MD; Mubammed El-Orbany, MD, *Dept Anesth, Illinois Masonic Med Ctr, Chgo, IL, United States*. Neither 30 sec nor 1 min maximal breath oxygenation raises ETO_2 to 90%. Prolonged maximal breathing decreases ETCO_2 and may left-shift the O_2Hgb dissociation curve.

A-1317 Room G, 10/17/2000 2:00 PM - 4:00 PM (PS)
Analysis of the Intrapulmonary Distribution of Ventilation and PO_2 in Patients after Single-Lung Transplantation: A $^3\text{Helium-MR I}$ Study Baltasar Eberle, MD; Klaus Markstaller, MD; Anselm Deninger, MS; Hans U. Kauczor, MD; Norbert Weiler, MD, *Anesthesiology, J.G.U., Mainz, Germany*. Data showed maldistributed ventilation and low $\text{P}_{\text{A}}\text{O}_2$.

A-1318 Room G, 10/17/2000 2:00 PM - 4:00 PM (PS)
Minimal Inflation Volume for Adequate Filling of the Combitude Pharyngeal Balloon Luis A. Gaitini, MD; Sonia J. Vaida, MD; Mostafa Somri, MD; Milian Croitoru, MD; Bruce Ben-David, MD, *Department of Anesthesiology, B'nai Zion Medical Center, Haifa, Israel*. For airway seal during spontaneous ventilation the Combitude pharyngeal balloon needs less air than recommended by the manufacturer.

A-1319 Room G, 10/17/2000 2:00 PM - 4:00 PM (PS)
Intrathecal Morphine Improves Forced Vital Capacity and Peak Expiratory Flow Rate after CABG Surgery Sheldon Goldstein, MD; Oscar B. Elbert, RRT; Enrique Pantin, MD; Kim Cocozello, RN, MSN; Vincent DeAngelis, MD, *Anesthesia, UMDNJ-Robert Wood Johnson Medical School, New Brunswick, NJ, United States*. Patients who received ITM had larger FVC and PEFV post-CABG as compared to controls.

A-1320 Room G, 10/17/2000 2:00 PM - 4:00 PM (PS)
Protective Effects of Volatile Agents Against Methacholine-Induced Bronchoconstriction in Rats Walid Habre, MD; Ferenc Petak, PhD; Peter D. Sly, MD; Zoltan Hantos, PhD; Denis R. Morel, MD, *Dept of Anesthesiology, Pharmacology and Intensive Care, University Hospitals of Geneva, Geneva, Switzerland*. Isoflurane, sevoflurane, and desflurane are as effective as halothane in protecting airway constriction.

A-1321 Room G, 10/17/2000 2:00 PM - 4:00 PM (PS)
Halothane Inhibits Smooth Muscle Protein Phosphatase in Airway Smooth Muscle Motobiko Hanazaki, M.D.; Keith A. Jones, M.D.; David O. Warner, M.D., *Department of Anesthesiology, Mayo Clinic and Foundation, Rochester, MN, United States*. Halothane decreases calcium sensitivity in airway smooth muscle by indirectly increasing smooth muscle protein phosphatase activity.

A-1322 Room G, 10/17/2000 2:00 PM - 4:00 PM (PS)
Apnea Induces Bronchoconstriction by Vagally Mediated Reflexes in Dogs Kazuyoshi Hirota, MD; Shizuko Kabara, MD; Eiji Hasbiba, MD; Yoshio Hasbimoto, MD; Akitomo Matsuki, MD, *Anesthesiology, University of Hirosaki School of Medicine, Hirosaki, Aomori, Japan*. Apnea produces vagally mediated bronchoconstriction.

A-1323 Room G, 10/17/2000 2:00 PM - 4:00 PM (PS)
Oxidative Stress Relaxes Airway Smooth Muscle by Novel Mechanisms Keith A. Jones, MD; Robert R. Lorenz; William J. Perkins, MD; David O. Warner, MD, *Anesthesiology, Mayo Clinic and Foundation, Rochester, MN, United States*. Hydrogen peroxide relaxes airway smooth muscle in part by directly inhibiting contractile proteins that do not regulate regulatory myosin light chain phosphorylation.

A-1324 Room G, 10/17/2000 2:00 PM - 4:00 PM (PS)
Primary Alcohols Mimic the Actions of Volatile Anesthetics on Airway Smooth Muscle Keith A. Jones, MD; Nicole E. Marshall; Keri Griffin; William J. Perkins; David O. Warner, *Anesthesiology, Mayo Clinic and Foundation, Rochester, MN, United States*. Primary alcohols mimic the airway smooth muscle relaxing effect of volatile anesthetics by decreasing $[\text{Ca}^{2+}]_i$ and Ca^{2+} sensitivity.

A-1325 Room G, 10/17/2000 2:00 PM - 4:00 PM (PS)
Propofol Antagonizes Methacholine-Induced Bronchoconstriction in Dogs with and without Wagotomy Shizuko Kabara, MD; Kazuyoshi Hirota, MD; Eiji Hasbiba, MD; Hideki Yoshioka, MD; Akitomo Matsuki, MD, *Anesthesiology, University of Hirosaki School of Medicine, Hirosaki, Aomori, Japan*. Propofol may directly relax methacholine-induced bronchoconstriction.

A-1326 Room G, 10/17/2000 2:00 PM - 4:00 PM (PS)
Inhaled Nitric Oxide Does Not Improve Oxygenation nor Reduce Rate of Desaturation during One-Lung Ventilation W. Karzai, MD; K. Schwarzkopf, MD; F. Bloos, MD, PhD; U. Klein, MD, *Department of Anesthesiology, University Hospital, Jena, Germany*. During One lung ventilation and FiO_2 at 0.3, 0.5 or 1.0, inhaled NO did not improve oxygenation or decrease frequency of arterial desaturation.