A-622 Room D, 10/16/2000 9:00 AM - 11:00 AM (PS)
Abnormal Vascular Reactivity in the Ob/ob Mouse *B. Winters, PhD/MD; D. Berkowitz, MD; A. Shoukas, PhD, ACCM, Johns Hopkins, Baltimore, MD, United States.* We report the phenomena of enhanced vasoconstriction and impaired endothelial dependent vasorelaxation in the ob mouse as compared to wild type. Leptin repletion reversed these abnormalities. This implicates leptin's role in vasomotor regulation.

A-623 Room D, 10/16/2000 9:00 AM - 11:00 AM (PS)
Immunohistochemical Localization of the NO-cGMP-PKG Signaling Pathway in Rat Kidney *Xinhua Zhan, M.D., Ph.D; Dechun Li, M.D., Ph.D; Roger A. Johns, M.D., Department of Anesthesiology, Union Affiliated Hospital of Tongji Medical University, Wuhan, Hubei, China.* eNOS, sGC and PKG I-βshowed in tubule and renin-containing cell. PKG I-α showed in SMC of the arterioles only.

Experimental Circulation: Cardiac Muscle & Cardiac Performance

A-624 Room D, 10/16/2000 2:00 PM - 4:00 PM (PS)
Intracellular Ca^{2+} Is Not Altered by Increased External Mg^{2+} in Isolated Guinea Pig Hearts *Jianzhong An, MD; Amadou K.S. Camara, PhD; Srinivasan G. Varadarajan, MD; Enis Novalija, MD; David F. Stowe, MD, PhD, Anesthesiology, Medical College of Wisconsin, Milwaukee, WI, United States.* Cytosolic Ca^{2+} is not altered by incremental increases in external Mg^{2+}

A-625 Room D, 10/16/2000 2:00 PM - 4:00 PM (PS)
Increased β-Tubulin in Hypertrophied and Failing Human Hearts *Louise A. Aquila-Pastir, M.S.; Christine S. Moravec, Ph.D., Anesthesiology Research, The Cleveland Clinic Foundation, Cleveland, OH, United States.* β-tubulin protein is increased in hypertrophied and failing human hearts vs non-failing human hearts, suggesting a role for increased microtubules in cardiac dysfuction.

A-626 Room D, 10/16/2000 2:00 PM - 4:00 PM (PS)
Increased Extracellular Magnesium in Intact Beating Guinea Pig Hearts Does Not Alter Rates of Accumulation and Removal of Myoplasmic Free Calcium *Amadou Camara, Ph.D; Jianzhong An, M.D; Enis Novalija, M.D; Srinivasan G. Varadarajan, M.D; David F. Stowe, M.D.Ph.D, Anesthesiology, Medical College of Wisconsin, Milwaukee, WI, United States.* Excess Mg does not alter cytosolic Ca accumulation in the intact beating heart.

A-627 Room D, 10/16/2000 2:00 PM - 4:00 PM (PS)
IGF-I Gene Transfer Prevents Hypoxia-Induced Cardiomyocyte (CM) Apoptosis *Wei Chao, M.D., Ph.D; Takashi Matsui, M.D., Ph.D; Ling Li, M.D.; Anthony Rosenzweig, M.D., Anesthesia and Cardiovascular Research Center, Mass. General Hospital, Boston, MA,.* We conclude: 1) adenoviral gene transfer achieves effective expression of IGF-I in vitro and in vivo, 2) expression of IGF-I inhibits hypoxia-induced CM apoptosis.

A-628 Room D, 10/16/2000 2:00 PM - 4:00 PM (PS)
Cholinergic Regulation of Myocardial Contractility *George J. Crystal, PhD; Syed Alam, MD; Agnieszka Piotrowski, MD; Guochang Hu, MD, Anesthesiology, IL Masonic Med Ctr & Univ IL Col Med, Chicago, IL, United States.* Negative inotropic effect of acetylcholine during B-adrenergic stimulation is independent of NO-cGMP pathway. Mechanism downstream from adenylate cyclase plays role in this effect.

A-629 Room D, 10/16/2000 2:00 PM - 4:00 PM (PS)
Lidocaine Reduces Ischemic Injury but Not Reperfusion Injury in the Isolated Rat Heart *Dirk Ebel, MD; Peter Lipfert, MD, PhD; Benedikt Preckel, MD; Volker Thamer, MD, PhD; Wolfgang Schlack, MD, PhD, Institute of Clinical Anaesthesiology, Heinrich-Heine-University, Dusseldorf, NRW, Germany.* Lidocaine protects myocardium from ischemic injury but not against reperfusion injury in the isolated rat heart.

A-630 Room D, 10/16/2000 2:00 PM - 4:00 PM (PS)
Multivariate Analysis of Ventricular Fibrillation and Prediction of Defibrillation Success *Matthias Fischer, MD; Holger Grethe, MS; Martin Breil, MS; Alfred Dahmen, MD; Jorgen Bruhn, MD, Anesthesiology, University of Bonn, Bonn, Germany.* Prediction of defibrillation success by ECG derived parameters might optimize CPR algorithm, but median, entropy, amplitude and power of VF failed.

A-631 Room D, 10/16/2000 2:00 PM - 4:00 PM (PS)
Effects of Nicorandil on Myocardial Function and Metabolism in the Ischemic Heart with or without Inhalation Anesthetics *Atsushi Furuya, M.D.; Satoshi Kashimoto, M.D.; Takeshi Oguchi, M.D.; Kenichi Masui, M.D.; Teruo Kumazawa, M.D., Anesthesiology, Yamanashi Medical University, Yamanashi, Japan.* Isoflurane and sevoflurane reduced the beneficial effects of nicorandil on the heart.

A-632 Room D, 10/16/2000 2:00 PM - 4:00 PM (PS)
Naloxone Improves Functional Recovery from Myocardial Stunning in Conscious Dogs *Maike A. Grosse Hartlage, M.D.; Thomas P. Weber, M.D.; Andreas Meissner, M.D.; Hugo Van Aken, Ph.D.; Norbert Rolf, Ph.D., Anaesthesiologie, Westfaelische Wilhelms-Universitaet, Muenster, Germany.* Naloxone improves functional recovery from myocardial stunning in chronically instrumented conscious dogs.

A-633 Room D, 10/16/2000 2:00 PM - 4:00 PM (PS)
Effects of Halothane, Isoflurane, and Sevoflurane on SR Calcium Content and the Sarcolemmal Calcium Pump in Isolated Cardiac Myocytes *James D. Hannon, M.D.; Mark J. Cody, B.A.; Y.S. Prakash, Ph.D., Anesthesiology, Mayo Foundation, Rochester, MN, United States.* Halothane reduces calcium content of the SR; sevoflurane increases it. Isoflurane and sevoflurane inhibit sarcolemmal calcium pump function.

A-634 Room D, 10/16/2000 2:00 PM - 4:00 PM (PS)
Effects of Combined Use of Sevoflurane with MCI-154, a Calcium-Sensitizer, on Stunned Myocardium in Dogs *Tetsuya Hara, MD; Shunji Takahashi, MD; Sungsam Cho, MD; Shiro Tomiyasu, MD; Koji Sumikawa, MD, Anesthesiology, Nagasaki University, Nagasaki, Japan.* The combination of sevoflurane and MCI-154 could synergistically act to produce full recovery of myocardial contraction after ischemia.

A-635 Room D, 10/16/2000 2:00 PM - 4:00 PM (PS)
The Effect of Magnesium Deficiency on the Dysrhythmic Dose of Epinephrine during Halothane and Sevoflurane Anesthesia *David H. Ho, MBBS; Mark W. Crawford, MBBS; Meraj Shams; Robert Gow; Frederick J. Carmichael, Dept. of Anaesthesia, The Hospital for Sick Children, University of Toronto, Toronto, ON, Canada.* Mg deficiency attenuates differences in the DDE during H and S anesthesia.