

- A-728** Room E, 10/16/2000 2:00 PM - 4:00 PM (PS)
Neurons in Brain Slices Obtained from Ischemic Preconditioned Rats Can Utilize Lactate as Energy Source Takaaki Kitano, MD; Kettaro Yoshioka, MD; Naoko Nisimaru, MD; Hideo Iwasaka, MD; Takayuki Noguchi, MD, Department of Anesthesiology, Oita Medical University, Oita, Oita, Japan. Our results suggest that neurons in pre-stressed brain increase the ability to utilize lactate efficiently.
- A-729** Room E, 10/16/2000 2:00 PM - 4:00 PM (PS)
Effects of Volatile Anesthetics on NMDA Excitotoxicity in Primary Mixed Neuronal/Glial Cultures Masaya Kudo, M.D.; Yoonki Lee, M.D.; Gary W. Massey, B.S.; David S. Warner, M.D.; Robert D. Pearlstein, Ph.D., Anesthesiology, Duke University, Durham, NC, United States. Only modest protection against NMDA excitotoxicity was provided by volatile anesthetics at clinical concentrations in neural culture.
- A-730** Room E, 10/16/2000 2:00 PM - 4:00 PM (PS)
Neuroprotection by Desflurane during Deep Hypothermic Circulatory Arrest C. Dean Kurth, M.D.; M. Priestley, M.D.; H.M. Watzman, M.D.; J. McCann, B.S., Anesthesia, The Children's Hospital of Philadelphia, Philadelphia, PA, United States. Desflurane improves neurologic outcome after deep hypothermic circulatory arrest in newborn pigs.
- A-731** Room E, 10/16/2000 2:00 PM - 4:00 PM (PS)
Spinal Cord Ischemic Injury Induced by Aortic Cross-Clamping: Effect of Tacrolimus (FK506) Loic Lang-Lazdunski, MD; Jean Mantz, MD, PhD; Catherine Heurteaux, PhD; Danielle Rouelle, BA; Michel Lazdunski, PhD, DSc, Cardiovascular surgery, Hopital Bicbat, Paris, France. FK506 afforded significant but only partial neuroprotection in a rat model of spinal cord ischemia induced by aortic cross-clamping.
- A-732** Room E, 10/16/2000 2:00 PM - 4:00 PM (PS)
Dexmedetomidine Protects Against Neonatal Excitotoxic Brain Injury Vincent Laudenbach, M.D.; Jean Mantz, M.D., Ph.D.; Philippe Evrard, M.D.; Pierre Gressens, M.D., Ph.D., Laboratory of Developmental Neurology, INSERM E9935, Robert Debre Hospital, Paris, France. We compared the influence of dexmedetomidine and clonidine on the extent of excitotoxic neonatal brain lesions in a murine model.
- A-733** Room E, 10/16/2000 2:00 PM - 4:00 PM (PS)
Anesthetic Influenced CO₂ Reactivity in a Silicone Embolus Model of Focal Ischemia Kathryn K. Lauer, M.D.; Hui Shen, M.D.; Anthony G. Hudetz, B.M.D., Ph.D.; John P. Kampine, M.D., Ph.D., Anesthesiology, Medical College of Wisconsin, Milwaukee, WI, United States. This study evaluated CO₂(sub)2/(sub) reactivity acutely, and 2 weeks after a silicone embolus rat stroke model under pentobarbital and isoflurane anesthesia.
- A-734** Room E, 10/16/2000 2:00 PM - 4:00 PM (PS)
Neuroprotective Effect of Low-Dose Lidocaine in a Rat Model of Transient Focal Cerebral Ischemia Baiping Lei, MD, PhD; Ira S. Kass, PhD; James E. Cottrell, MD, Department of Anesthesiology, SUNY-HSC at Brooklyn, Brooklyn, NY, United States. The present study demonstrates that low-dose lidocaine, when given before transient focal cerebral ischemia, significantly reduces infarct size.
- A-735** Room E, 10/16/2000 2:00 PM - 4:00 PM (PS)
Supranormal Hemoglobin Levels Combined with Normal Hematocrit Decrease Cerebral Blood Flow in Rats C. Lenz, MD; Th. Frietsch, MD; A. Rebel, MD; W. Kuschinsky, MD; K. Waschke, MD, Dept. of Anesthesia, Fac. Mannheim, Univ. Heidelberg, Mannheim, Germany. CBF is reduced by 37% when hemoglobin content is raised from 15 to 20 g/dl by blood exchange with erythrocytes suspended in a hemoglobin solution.
- A-736** Room E, 10/16/2000 2:00 PM - 4:00 PM (PS)
An Inhibitor of 20-HETE Formation Attenuates the Fall in Cerebral Blood Flow Following Subarachnoid Hemorrhage Hirotsugu Okamoto, M.D., Ph.D.; Kristopher G. Maier, Ph.D.; David R. Harder, Ph.D.; Richard J. Roman, Ph.D., Physiology, Medical College of Wisconsin, Milwaukee, WI, United States. 20-HETE, a cytochrome P450 metabolite of arachidonic acid, may contribute to acute cerebral vasospasm following SAH.
- A-737** Room E, 10/16/2000 2:00 PM - 4:00 PM (PS)
Cerebral Blood Flow Sensitivities to CO₂ Determined by Read's Rebreathing Method and the Steady-State Method Are Not Equal Jaideep J. Pandit, FRCA; Ravi M. Mohan, PhD; Nicole D. Paterson; Marc J. Poulin, DPbil, Nuffield Department of Anaesthetics, John Radcliffe Hospital, Oxford, Oxon, United Kingdom. Read's rebreathing method yields a smaller CBF-CO₂ response than the steady-state method.
- A-738** Room E, 10/16/2000 2:00 PM - 4:00 PM (PS)
Effect of Halothane and Sevoflurane on Microvascular Spasm in a Rat Model of Subarachnoid Hemorrhage (SAH) Kyung W. Park, MD; Hai B. Dai, MD; Mark E. Comunale, MD; Frank W. Sellke, MD, Anesthesia, Beth Israel Deaconess Medical Center, Boston, MA, United States. Endothelial dysfunction of rat cortical arterioles after subarachnoid hemorrhage is not worsened by halothane or sevoflurane.
- A-739** Room E, 10/16/2000 2:00 PM - 4:00 PM (PS)
Chromosome Mapping of the Human Homologue of a New Glutamate Receptor Gene Suggests Roles in Neuroprotection and Autism Raymond S. Roginski, MD, PhD; Bhaskara K. Mohan Raj, PhD; Scott W. Finkernagel, MS; Leonard J. Sciorra, PhD, Anesthesia, UMDNJ-RW Johnson Medical School, New Brunswick, NJ, United States. Presence in *humans* means that this gene can have medical relevance.
- A-740** Room E, 10/16/2000 2:00 PM - 4:00 PM (PS)
Comparison of Human and Rat Sequences of a New, Putative Glutamate Receptor Reveals Conserved Elements Raymond S. Roginski, MD, PhD; Bhaskara K. Mohan Raj, PhD, Anesthesia, UMDNJ-RW Johnson Medical School, New Brunswick, NJ, United States. The existence of a conserved *human* form means that this gene may have medical importance. Interspecies conservation of key Glu receptor elements was found.
- A-741** Room E, 10/16/2000 2:00 PM - 4:00 PM (PS)
Brain Tissue Oxygenation and Cerebral Blood Flow during Hemodilution and Hypoxia Phillip G. Schmid, III, MD; Michael M. Todd, MD; Johnny E. Brian, MD; JoAnn Schwarting, Anesthesia, University of Iowa, Iowa City, IA, United States. Brain tissue oxygenation decreases more during hypoxia than during hemodilution when arterial O₂ contents are decreased to equivalent degree.