

A-700 Room F, 10/16/2000 9:00 AM - 11:00 AM (PS)
Fentanyl, but Not Sufentanil, Exacerbates Neonatal Excitotoxic White Matter Lesions Via the ORL-1 Receptor Vincent Laudenbach, M.D.; Girolamo Calo; Jean Marie Desmonts, M.D.; Philippe Evrard; Pierre Gressens, M.D., Ph.D., Laboratory of Developmental Neurology, INSERM E9935, Robert Debre Hospital, Paris, France. To test opioids in a neonatal excitotoxic brain lesions model.

A-701 Room F, 10/16/2000 9:00 AM - 11:00 AM (PS)
Neuroprotection from Delayed Post-Ischemic Administration of a Metalloporphyrin Catalytic Antioxidant in the Rat Georg B. Mackensen, MD; Manisha Patel, PhD; James D. Crapo, MD; Ines Batinic-Haberle, PhD; David S. Warner, MD, Anesthesiology, Duke University, Durham, NC, United States. A catalytic anti-oxidant given up to 6 hrs after focal ischemia caused major reduction in cerebral infarct size.

A-702 Room F, 10/16/2000 9:00 AM - 11:00 AM (PS)
Aquisition of Ischemic Tolerance after an Electroconvulsive Shock Treatment in Rats Yasunori Misbima, MD; Hideki Harada, MD; Tsuruo Matsuda, PhD; Tatsubiko Kano, MD, Anesthesiology, Kurume Univ.School of Medicine, Kurume, Japan. Electroconvulsive shock at 48 hours before ischemia reduces ischemic neuronal injury of CA1 sectors for subsequent lethal forebrain ischemia.

A-703 Room F, 10/16/2000 9:00 AM - 11:00 AM (PS)
Effect of Sodium Pentobarbital on the Kinetics of the Sodium/Bicarbonate Cotransporter in Astrocytes Ronald L. Morgan, PhD, M.D.; Rona G. Giffard, PhD, M.D., Anesthesia, Stanford University, Stanford, CA, United States. Kinetics of the sodium/bicarbonate cotransporter (NBC) in astrocytes were studied. Pentobarbital and a pH of 6.8 were found to inhibit NBC in similar nonlinear manners.

A-704 Room F, 10/16/2000 9:00 AM - 11:00 AM (PS)
Dual Effect of Hyperbaric Oxygen on Cerebral Infarction in Rats George Mychaskiw II, D.O.; Ahmed E. Badr, M.D.; John H. Zhang, PhD; John H. Eichborn, M.D., Anesthesiology, University of Mississippi, Jackson, MS, United States. In a model of MCAO ischemia-reperfusion injury, HBO exerts a dual effect, with final infarct volume dependent on the interval between injury and therapy.

A-705 Room F, 10/16/2000 9:00 AM - 11:00 AM (PS)
Brain Caspase Activity Is Significantly Elevated 72 Hours after Deep Hypothermic Circulatory Arrest in Newborn Pigs Margaret A. Priestley, M.D.; Chandra Ramamoorthy, M.D.; John McCann, B.S.; C. Dean Kurth, M.D., Anesthesia/Critical Care Medicine, The Children's Hospital of Philadelphia, Philadelphia, PA, United States. Caspase activity increases significantly for days in neocortex after DHCA in newborn pigs.

A-706 Room F, 10/16/2000 9:00 AM - 11:00 AM (PS)
Heat Shock Protein Expression and Ischemic Preconditioning in the In Vivo Rat Retina Steven Roth, MD; Charles Zhang, MD; Afzal Shaikh, MS; Elise Krecji, BS; Chris Yang, Anesthesia and Critical Care, University of Chicago, Chicago, IL, United States. Heat shock gene expression in retinal ischemic preconditioning

A-707 Room F, 10/16/2000 9:00 AM - 11:00 AM (PS)
Improved Neurological Status and Cerebral Edema with Continuous Intravenous Infusion of LF 18-1505 T after Head Injury Yoram Shapira, MD, PhD; Didier Pruneau, PhD; Alan A. Artru, MD; Alexander Pitkin, MD; Tamila Brook, MD, Division of Anesthesiology, Soroka Medical Center, Ben-Gurion University of the Negev, Beer-Sheva, Israel. LF 18-1505 T improves neuro-outcome in head trauma.

A-708 Room F, 10/16/2000 9:00 AM - 11:00 AM (PS)
SQ Injection of LF 16-0687 Ms Improves Cerebral Edema and Neurological Outcome in a Rat Model of Closed Head Trauma Yoram Shapira, MD, PhD; Ilia Asa, MD; Alan A. Artru, MD; Didier Pruneau, PhD; Sergei Shikanov, MD, Division of Anesthesiology, Soroka Medical Center, Ben-Gurion University of the Negev, Beer-Sheva, Israel. LF 16-0687 Ms improves head trauma outcome.

A-709 Room F, 10/16/2000 9:00 AM - 11:00 AM (PS)
Effect of Acidosis And Antioxidants on Neuronal Cell Death Due to Hypoxia Hirochika Shibakama, MD; Yuji Morimoto, MD; Takaki Shibano, MD; Osamu Kemmotsu, MD, Anesthesiology and Critical Care Medicine, Hokkaido University School of Medicine, Sapporo, Japan. We evaluated which type of cell death acidosis enhanced after hypoxic insult and examined the effect of antioxidants.

A-710 Room F, 10/16/2000 9:00 AM - 11:00 AM (PS)
Fas Ligand Expression is Enhanced in the Hippocampus of Mongolian Gerbil after 5-min Transient Ischemia Hideyuki Shiratsuka, MD, PhD; Hiroshi Abe, MD, PhD; Yoshimichi Ueda, MD, PhD; Hideaki Tsuchida, MD, PhD; Shogo Katsuda, MD, PhD, Anesthesiology, Kanazawa Medical University, Uchinada, Ishikawa, Japan. Fas and Fas ligand were expressed in the hippocampus regardless of ischemia; the latter peaked 48 hrs after ischemia.

A-711 Room F, 10/16/2000 9:00 AM - 11:00 AM (PS)
Ischemic Tolerance Preserves Propagation of Membrane Depolarization in the Gerbil Hippocampus Kitchiro Taga, MD; Naoshi Fujiwara, PhD; Koki Shimoji, MD, Anesthesiology, Niigata Univ. Sch. of Med., Niigata, Japan. The propagation of membrane depolarization after lethal ischemia was more preserved in gerbils that had acquired ischemic tolerance than in gerbils that had not.

A-712 Room F, 10/16/2000 9:00 AM - 11:00 AM (PS)
Activation of Mitogen-Activated Protein Kinase Signalling Following Traumatic Brain Injury in Rats Daniel Talmor, MD; Alan A. Artru, MD; Rony Seger, PhD; Tami Hanoc, MSc; Yoram Shapira, MD, PhD, Anesthesiology, Beth Israel Deaconess Medical Center and Harvard Medical School, Boston, MA, United States. Mitogen-activated protein kinases (ERK, P-38, and JNK) are activated after head injury in rats.

A-713 Room F, 10/16/2000 9:00 AM - 11:00 AM (PS)
Interaction of Furosemide and Mannitol in Reducing Brain Water Kokila Thenuwara, MD; Johnny E. Brian, MD; Michael M. Todd, MD, Dept. of Anesthesia, University of Iowa Hospitals and Clinics, Iowa City, IA, United States. The concomitant administration of furosemide with mannitol produces greater increase in plasma osmolality and reduction of brain water than mannitol alone.