

**A-969** Room 310, 10/17/2000 10:30 AM - 12:00 PM (PD)  
**Preoperative Intradermal Acupuncture Reduces Postoperative Pain, Analgesic Requirements, and Sympatho-Adrenal Responses** Naoki Kotani, M.D.; Yutaka Sato, M.D.; Hirosbi Hasbimoto, M.D.; Masatoshi Muraoka, M.D.; Akitomo Matsuki, M.D., *Anesthesiology, University of Hirosaki, Hirosaki, Aomori-ken, Japan*. Preoperative insertion of intradermal needles is effective for reducing postoperative pain.

**A-970** Room 310, 10/17/2000 10:30 AM - 12:00 PM (PD)  
**Epidural Catheter Length That Can be Threaded without Coiling in Lumbar Epidural Space** Young-jin Lim, MD; Sang-Chul Lee, MD, *Anesthesiology, Seoul National University College of Medicine, Seoul, Korea*. The length of catheter threaded into lumbar epidural space without coiling was measured using fluoroscopy. It was 2.8 cm (median), and varied from 1.0 to 8.0 cm.

### Local Anesthesia: Pain - Basic Science

**A-971** Room 310, 10/17/2000 3:30 PM - 5:00 PM (PD)  
**Chronic Opioid Administration Alters Pain Thresholds in a Rat Model of Incisional Pain** David J. Clark, M.D./Ph.D.; Xiangqi Li, M.D., *Anesthesiology, Stanford University, Palo Alto, CA, United States*. These studies examine the effect of chronic opioid use on post-procedural pain in a model of incisional pain. Chronic opioid use is correlated with increased post-procedural hyperalgesia and allodynia.

**A-972** Room 310, 10/17/2000 3:30 PM - 5:00 PM (PD)  
**Evidence of the Involvement of cGMP-Dependent Protein Kinase I  $\alpha$  in Spinal Processing of Nociceptive Information** Yuan-Xiang Tao, Ph.D., M.D.; Roger A. Johns, M.D.; Aalya Hassan; Elie Haddad, M.D., *Department of Anesthesiology and Critical Care Medicine, Johns Hopkins University School of Medicine, Baltimore, MD, United States*. cGMP-dependent protein kinase I $\alpha$  is involved in pain processing.

**A-973** Room 310, 10/17/2000 3:30 PM - 5:00 PM (PD)  
**Cannabinoids Reduce Morphine-Induced Emesis in Ferrets** Isabelle I. Simoneau, M.D.; Maged Hamza, M.D.; Heriberto P. Mata, B.S.; Frank Porrecca, Ph.D.; T. Phillip Malan, Jr., M.D., Ph.D., *Department of Anesthesiology, University of Arizona, Tucson, AZ, United States*. The mixed CB1/CB2 cannabinoid receptor agonist, WIN 55212-2, dose-dependently prevents retching and vomiting induced by morphine.

**A-974** Room 310, 10/17/2000 3:30 PM - 5:00 PM (PD)  
**Role of NOS Isoforms on the Modulation of Pain and Associated Cardiovascular Effects in the Rat Formalin Test** Marie-Francoise Doursout, Ph.D.; Yangyan Liang; Jacques E. Chelly, M.D., Ph.D., MB, *Anesthesiology, University of Texas Medical School, Houston, TX, United States*. Our data provide direct evidence of the involvement of cNOS and iNOS in nociceptive behaviors in the rat formalin test.

**A-975** Room 310, 10/17/2000 3:30 PM - 5:00 PM (PD)  
**Intracerebroventricular Morphine Evokes GABA Release through Activation of 5-HT<sub>3</sub> Receptor in the Spinal Cord** Tomoyuki Kawamata, MD; Keiichi Omote, MD; Masaki Toriyabe, MD; Mikiito Kawamata, MD; Akiyoshi Namiki, MD, *Anesthesiology, Sapporo Medical University School of Medicine, Sapporo, Hokkaido, Japan*. I.c.v. morphine evokes spinal GABA release via the activation of spinal 5-HT<sub>3</sub> receptors.

**A-976** Room 310, 10/17/2000 3:30 PM - 5:00 PM (PD)  
**Efficacy of Spinal Cyclooxygenase (COX) Inhibitors and Clonidine Combination to Relieve Postoperative Pain in a Validated Animal Model** Patricia M. Lavand'homme, MD, PhD; Nathalie Renier; Marc De Kock, MD, PhD, *Anesthesiology, St Luc Hospital - UCL, Brussels, Belgium*. Spinal selective COX2 inhibitor displays clonidine sparing effect in post-incisional pain.

**A-977** Room 310, 10/17/2000 3:30 PM - 5:00 PM (PD)  
**Effect of Joro Spider Toxin (JSTX) on Primary and Secondary Hyperalgesia after Incision in the Rat** Esther M. Pogatzki, MD; Jan S. Niemeier, BS; Linda S. Sorkin, PhD; Timothy J. Brennan, PhD, MD, *Anesthesia, Univ of Iowa, Iowa City, IA, United States*. IT JSTX, an antagonist to Ca<sup>2+</sup> permeable AMPA receptors, blocked secondary but not primary punctate hyperalgesia after incision.

**A-978** Room 310, 10/17/2000 3:30 PM - 5:00 PM (PD)  
**Tumor Necrosis Factor  $\alpha$  Mediates Spontaneous Activity in Chronically Compressed Dorsal Root Ganglion Neurons in the Rat** Jun-Ming Zhang, M.S., M.D.; Huiqing Li, M.D.; Sorin J. Brull, M.D., *Anesthesiology, University of Arkansas for Medical Sciences, Little Rock, AR, United States*. TNF- $\alpha$  altered firing rate of abnormal activity and action potential characteristics of the injured sensory neuron.

### Local Anesthesia: Basic Science

**A-979** Room 301, 10/18/2000 9:00 AM - 10:30 AM (PD)  
**Calcium Dependence of Low-Dose Local Anesthetic Neurotoxicity** Michael E. Johnson, M.D., Ph.D.; Cindy B. Ubl, B.S., *Anesthesiology, Mayo Medical School, Rochester, MN, United States*. Low dose local anesthetic is neurotoxic after 2-4 hr exposure. Cytoplasmic calcium buffering by BAPTA is not protective. Equipotent bupivacaine is as toxic as lidocaine under these conditions.

**A-980** Room 301, 10/18/2000 9:00 AM - 10:30 AM (PD)  
**Nicorandil, Calcium and Glyceryl Trinitrate - Efficacy in Reversal of Ropivacaine-Induced Cardiotoxicity** Jennifer M. Porter, FFARCSI; Farouk Markos, BSc; H.M. Snow, PhD; George D. Shorten, PhD, *Anaesthesia & Intensive Care Medicine, Cork University Hospital, University College Cork, Cork, Ireland*. Calcium chloride was effective in reversing ropivacaine-induced depression of myocardial contractility.

**A-981** Room 301, 10/18/2000 9:00 AM - 10:30 AM (PD)  
**Inhibition of L-Type Ca<sup>2+</sup> Current by Bupivacaine Enantiomers in Rat Cardiac Myocytes** G. Zapata-Sudo, M.D., Ph.D.; M.M. Trachez, M.D., Ph.D.; R.T. Sudo, M.D., Ph.D.; T.E. Nelson, Ph.D., *Dept. of Basic and Clin. Pharmacol., UFRJ, Rio de Janeiro, Brazil*. R(+) and S(-) bupivacaine block L-type calcium current of cardiac myocytes in a dose-dependent manner, by binding to the inactivated state of the channel.

**A-982** Room 301, 10/18/2000 9:00 AM - 10:30 AM (PD)  
**Stereoselective Effects of Ropivacaine on Lysophosphatidate Signaling** Markus W. Hollmann, MD; Andreas Berger, MS; Lars G. Fischer, MD; Marcel E. Durieux, MD, PhD, *Department of Anesthesiology, University of Virginia, Charlottesville, VA, United States*. Inhibition of LPA signaling by S(-) ropivacaine is less than that induced by comparable concentrations R(+) ropivacaine, lidocaine or bupivacaine.