

- A-784** Room D, 10/17/2000 2:00 PM - 4:00 PM (PS)
Intrathecal Mu and Delta, but Not Kappa Agonists, Can Induce Spastic Paraplegia after Non-Injurious Interval of Spinal Cord Ischemia in Rats Manabu Kakinobana, MD; Seiya Nakamura, MD; Yutaka Taira, MD; Martin Marsala, MD, *Anesthesiology, University of the Ryukyus, Nishibara, Okinawa, Japan*. Intrathecal mu and delta agonists induced spasticity after short lasting spinal ischemia.
- A-785** Room D, 10/17/2000 2:00 PM - 4:00 PM (PS)
Effect of Nitric Oxide Synthase Inhibitor, 7-Nitro Indazole on the Loss of Righting Reflex during Sevoflurane Anesthesia in Rats Shunji Kobayashi, M.D.; Tatsuaki Iwamoto, M.D.; Hiromichi Bito, M.D.; Takasumi Katoh, M.D.; Shigebito Sato, M.D., *Department of Anesthesiology and Intensive Care, Hamamatsu University School of Medicine, Hamamatsu, Shizuoka, Japan*. Administration of 7-nitroindazole reduced ED50.
- A-786** Room D, 10/17/2000 2:00 PM - 4:00 PM (PS)
Local Anesthetics Preferentially Inhibit Sustained K⁺ Currents of Small Dorsal Root Ganglion Neurons Hirochika Komai, Ph.D.; Thomas S. McDowell, M.D., Ph.D., *Anesthesiology, University of Wisconsin, Madison, WI, United States*. Local anesthetics block K⁺ currents more potently in small vs. large sensory neurons. This may facilitate block of Na⁺ currents in these cells.
- A-787** Room D, 10/17/2000 2:00 PM - 4:00 PM (PS)
Spontaneous Opioid Withdrawal Is Dose-Dependent Lev Langerman, MD; Alexander Krendal, MD, PhD; Gilbert J. Grant, MD, *Anesthesia, NYU Med Center, New York, NY, United States*. We revised the theory that the induced opioid withdrawal intensity is dose-dependent, while the spontaneous opiate withdrawal intensity (SOWI), is not. In contrast to the current concept, we found that SOWI is dose-dependent.
- A-788** Room D, 10/17/2000 2:00 PM - 4:00 PM (PS)
Opioid Inhibition of Calcium Currents Elicited by Action Potential Waveform Thomas S. McDowell, M.D., Ph.D., *Anesthesiology, University of Wisconsin, Madison, WI, United States*. Opioid inhibition of total Ca²⁺ entry is similar whether elicited by a typical square wave voltage pulse or an action potential waveform, but is less voltage dependent during the action potential waveform.
- A-789** Room D, 10/17/2000 2:00 PM - 4:00 PM (PS)
Activation of the δ_2 Opioid Receptor Reduces Ca²⁺ Currents in Sensory Neurons Thomas S. McDowell, M.D., Ph.D., *Anesthesiology, University of Wisconsin, Madison, WI, United States*. Ca²⁺ channels in a population of sensory neurons are negatively coupled to μ - and/or δ_2 -opioid receptors but not to δ_1 -opioid receptors.
- A-790** Room D, 10/17/2000 2:00 PM - 4:00 PM (PS)
Effects of Nonimmobilizers on Immobility in *C. Elegans* Phil G. Morgan, MD; Gregory W. Radke, BA; Margaret M. Sedensky, MD, *Anesthesiology, Case Western Reserve Univ., Cleveland, OH, United States*. In *C.elegans* nonimmobilizers have effects antagonistic to volatile anesthetics. The data indicate that the antagonistic effects require specific gene products.
- A-791** Room D, 10/17/2000 2:00 PM - 4:00 PM (PS)
Mutual Antagonism of Buprenorphine and Morphine as Evidenced in the Nociceptive Activity Evoked in Thalamus Neurons of the Rat Alexander Nemirousky, MD; Ilmar Jurna, Dr. Med., *Anesthesiology, USC, Los Angeles, CA, United States*. Pure (morphine) and partial (buprenorphine) agonists of μ -opioid receptors interacted in an antagonistic manner while producing depression of thalamic neurons in rats.
- A-792** Room D, 10/17/2000 2:00 PM - 4:00 PM (PS)
Membrane and Synaptic Actions of Halothane on Rat Hippocampal Pyramidal Neurons and Inhibitory Interneurons Kobichi Nishikawa, MD, PhD; M. Bruce MacIver, MSc, PhD, *Anesthesia, Stanford University School of Medicine, Stanford, CA, United States*. Halothane increases GABA_A receptor-mediated synaptic transmission between hippocampal interneurons and depresses excitatory transmission.
- A-793** Room D, 10/17/2000 2:00 PM - 4:00 PM (PS)
Time-Dependent Effect of Fentanyl on Affective States as Assessed by Place Conditioning in Rats Laure Pain, MD; Guy Simonnet, PhD; Philippe Oberling, MD, PhD, *GRERCA, service d'anesthésie et U405 INSERM, CHU Hautepierre, Strasbourg, France*. Fentanyl (4X60 μ g/kg) induced an immediate pleasant state, but a delayed (24 hours) unpleasant one, independently of any nociceptive stimulus.
- A-794** Room D, 10/17/2000 2:00 PM - 4:00 PM (PS)
Implication of Forebrain Cholinergic Neurotransmission in Propofol Induced Sedation Laure Pain, MD; Olivia Lebmann; Helene Jetsch, PhD; Fathem-Zohra Laalou; Jean-Cristophe Cassel, PhD, *GRERCA, Service d'Anesthésie et U405 INSERM, CHU Hautepierre, Strasbourg, France*. The sedative potency of propofol is reduced by about 50 % in rats with alteration of brain cholinergic function.
- A-795** Room D, 10/17/2000 2:00 PM - 4:00 PM (PS)
ERK Inhibition Reduces Opioid Tolerance in Rats Phillip P. Pearson, Ph.D.; Gavin B. Bishop, B.S.; James M. Trzaskos, Ph.D.; Howard B. Gutstein, M.D., *Anesthesiology, UT-MD Anderson Cancer Center, Houston, TX, United States*. ERK inhibition reduces opioid-induced tolerance in rats.
- A-796** Room D, 10/17/2000 2:00 PM - 4:00 PM (PS)
The Influence of Morphine on Thermogenesis and Ventilatory Control in μ -Opioid-Receptor Knockout Mice Elise Y. Sarton, MD; Luc J. Teppema, PhD; Cees N. Olivier; Diederik J.F. Nieuwenhuijs, MD; Albert Daban, MD PhD, *Department of Anesthesiology, Leiden University Medical Center, Leiden, Netherlands*. The μ -opioid-receptor is the primary molecular target of all respiratory actions of morphine.
- A-797** Room D, 10/17/2000 2:00 PM - 4:00 PM (PS)
Nitrous Oxide-Induced Antinociception and Noradrenergic Activation Are Not Mediated by Enkephalinergic Mechanism in Mice Shigebito Sawamura; Geeta Agasbe; Wade S. Kingery; M. Frances Davies; Mervyn Maze, *Anesthesiology, Stanford University, Stanford, CA, United States*. Antinociception and brainstem noradrenergic activation by N2O were preserved in preproenkephalin-deficient mice.