A-770  
**Room D, 10/17/2000 9:00 AM - 11:00 AM (PS)**  
Thermoregulatory Effects of the Nonimmobilizer 1,2-Dichloro- 
hexafluorocyclohexane. James M. Sonner, MD; Anya J. Mauser, BS;  
Daniel I. Sessler, MD; Edmond I. Eger, II, MD. Anesthesiology and  
Percutaneous Care, University of California, San Francisco, San  
Francisco, CA, United States. Unlike isoflurane, a nonimmobilizer has  
minimal effects on thermoregulation in rats.

A-771  
**Room D, 10/17/2000 9:00 AM - 11:00 AM (PS)**  
Treatment of Chronic Low Back Pain by Local Injection of Bot 
ulinum Toxin A. Bill Subin, MD; Georgia A. Morgan First, BS;  
Randall C. Cork, MD, PhD, Anesthesiology, LSU Health Sciences Center,  
Shreveport, LA, United States. Comparison between untreated and  
BTX-treated chronic low back pain demonstrates that BTX appears to  
reduce muscle spasm and relieve pain.

A-772  
**Room D, 10/17/2000 9:00 AM - 11:00 AM (PS)**  
Volatile Anesthetic Effects of Calcium and NADPH Require 
ments of NOS. Thomas M. Tagliente, MD,PhD, Anesthesiology, Mt  
Sinai School of Medicine, New York, NY, United States. The effects of  
halothane, isoflurane and ionetic strength on Ca^{2+} and NADPH require 
ments of NOS were studied. Ionic strength significantly affects the EC_{50}  
of Ca^{2+} but the VAs are without effect.

A-773  
**Room D, 10/17/2000 9:00 AM - 11:00 AM (PS)**  
Xenon Increases Norepinephrine Neuronal Activities in Rat  
Medial Preoptic Area and Posterior Hypothalamus: Comparison  
with Nitrous Oxide. Hitoshi Yoshida, MD; Tetsuya Kusibaka, MD;  
Takeshi Kubota, MD; Kazuyoshi Hirota, MD; Akitomo Matsuki, MD,  
Anesthesiology, University of Hiroaki, Hiroaki, Aomori-ken, Japan.  
Xe increases ENE in the MPO and PH, but N_{2}O does only in the MPO.

A-774  
**Room D, 10/17/2000 9:00 AM - 11:00 AM (PS)**  
Mutation of an Anesthetic-Photolabeled Residue in the nAChR  
Pore Alters Sensitivity to GAs. Qiong L. Zhou, Ph.D; Stuart A. Forn 
man, MD,PhD, Dept. of Anesthesia and Critical Care, MGH, Boston,  
MA, USA. The a262L mutation decreases nAChR sensitivity to inhibition by  
GAs.

A-775  
**Room D, 10/17/2000 2:00 PM - 4:00 PM (PS)**  
The Anesthetic, But Not Anesthetic, Effect of Propofol is Pre 
vented by Selective Lesions of the Basolateral Amygdala. M.T.  
Allkire, M.D.; A. Vazdarjanova, Ph.D.; H. Dickinson-Anson, Ph.D.; N.  
White, B.S.; L. Cabill, Ph.D., Anesthesiology, University of California,  
Irvine, CA, United States. Multiple sites, multiple mechanisms of an 
esthesia: a site identified? Evidence the amygdala may mediate anes 
thetic-induced amnesia.

A-776  
**Room D, 10/17/2000 2:00 PM - 4:00 PM (PS)**  
Low Concentrations of Isoflurane Block Long Term Potentiation of  
Hippocampal Neuron Synapses. Rodney J. Anderson; Brita Horn 
ning, MD; Sky Pittson, BS (MD); Frances A. Monroe, BA; M. Bruce  
Maclver, MSc,PhD, Anesthesiology, Stanford University School of Medi 
cine, Stanford, CA, United States. Loss of recall occurs at less than 0.4  
MAC in humans, 0.36 MAC was needed to block synaptic LTP found in  
the present study.

A-777  
**Room D, 10/17/2000 2:00 PM - 4:00 PM (PS)**  
Pentobarbital Enhances Synaptic Transmission in Rat Hipp 
campus. David P. Archer, MD; Naznim Samanani, BSc; Sheldon  
H. Roth, PhD, Department of Anesthesiology, University of Calgary,  
Calgary, Canada. Very low concentrations of pentobarbital (1-5  
\mu\text{M}) produce persistent enhancement of synaptic transmission by  
mechanisms involving GABA_A receptors and bicarbonate ion.

A-778  
**Room D, 10/17/2000 2:00 PM - 4:00 PM (PS)**  
Volatile Anesthetics Dose-Dependently Disrupt Spontaneous  
Ca^{2+}-Oscillations in Hippocampal Neuron Networks. Claudia  
Benkwitz, MD; Petrus Tav, PhD; Frank Kobelt, PhD; Norbert Roewer,  
MD, Dept. of Anesthesiology, University of Wuerzburg, Wuerzburg,  
Germany. Disruption of Ca^{2+}-oscillations in neuronal networks might  
reflect a common mechanism of anesthetic action.

A-779  
**Room D, 10/17/2000 2:00 PM - 4:00 PM (PS)**  
Chronic Administration of Opioids and Psychostimulants Alter  
RG54 mRNA Levels in Rat Brain. Gavin B. Bishop, B.S.; Eileen J.  
Carran; Stanley J. Watson; Huda Akl, Ph.D.; Howard B. Gutstein,  
M.D., Anesthesiology, M.D. Anderson Cancer Center, Houston, TX,  
United States. The current study demonstrates RG54 mRNA is altered by  
chronic treatment of opioids and psychostimulants.

A-780  
**Room D, 10/17/2000 2:00 PM - 4:00 PM (PS)**  
Effects of Morphine, Meperidine, and Fentanyl Derivatives on  
Nociceptor Activation, Vasodilation, and Mast Cell Degranula 
ion in Human Skin. James A. Blank, MD, Wolfgang Koppert, MD;  
Susanne Zeck, MD; Reinhard Sittl, MD; Martin Schmelz, MD, Dept. of  
Anesthesiology, Univ. Erlangen, Erlangen, Germany. Dermal micro 
vasodilation discerned between mast cell activation and unspecific vasodi 
alion by opioids.

A-781  
**Room D, 10/17/2000 2:00 PM - 4:00 PM (PS)**  
Differential Sensitivity of GABA and NMDA Receptors to Isoflu 
ranre Hugh E. Criswell, PhD; Zhen Ming, PhD; George R. Breese, PhD;  
Robert A. Mueller, MD, Anesthesiology, U.N.C., Chapel Hill, NC,  
United States. Isoflurane enhanced GABA currents in neurons with no  
effect below 1/4 MAC and inhibited NMDA currents as low as 1/30  
MAC. NMDA antagonism may mediate side effects of isoflurane during  
recovery.

A-782  
**Room D, 10/17/2000 2:00 PM - 4:00 PM (PS)**  
Is Opioid Tolerance a Unitary Phenomenon? Insights from Pro 
tecomics. Howard B. Gutstein, MD; Heju Zhang, BS, Anesthesiology,  
UT-MD Anderson Cancer Center, Houston, TX. United States. The  
time course of changes in protein expression caused by chronic opioid  
administration are not uniform for all cell types.

A-783  
**Room D, 10/17/2000 2:00 PM - 4:00 PM (PS)**  
Opioid Withdrawal Activates ERK in N2A Neuroblastoma Cells:  
A Potential Role for ERK Signaling in Opioid Dependence and  
Withdrawal Howard B. Gutstein, MD, Anesthesiology, UT-MD And 
erson Cancer Center, Houston, TX, United States. Regulation of the ERK  
signaling system may play a role in the development of dependence on  
opioids and the associated opioid withdrawal syndrome.