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ABSTRACTS

PRESIDENTIAL ADDRESS

Chair: *Robert L. Balster,* Medical College of Virginia, Virginia Commonwealth University, Richmond, VA.

AGGRESSION AND VIOLENCE: PHARMACOTHERAPEUTIC OPTIONS. Klaus A. Miczek. Tufts University, Medford, MA.

Aggressive behavior and its underlying neurobiology have evolved with adaptive purposes at every level of our phylogenetic history, to compete with rivals, to secure resources, to raise young, to defend against predators. Yet, aggressive behavior in excess, against inappropriate targets, under unusual circumstances needs to be controlled. Alcohol and other pharmacological states may engender excessive aggressive and violent behavior. Preclinical research has identified the most conducive conditions for alcohol and drugs of abuse to promote aggressive behavior. Pharmacotherapeutic options for the management of violent behavior rely on incomplete knowledge of the neurobiological mechanisms mediating the initiation, execution and termination of aggressive acts as well as their burst-like patterning. Substances acting on specific subtypes of GABA-A, 5-HT_1 and opioid receptors selectively modulate endocrinological, cardiovascular and motoric components of aggressive, defensive and submissive behavior.

INVITED ADDRESS

Chair: *Roy Pickens,* NIDA Addiction Research Center, Baltimore, MD.

ANXIOLYTIC DRUGS: NOVEL DEVELOPMENTS. James E. Barrett. Lilly Research Laboratories, Indianapolis, IN.

Several drugs that produce effects through distinct neuropharmacological mechanisms are effective in preclinical animal models of anxiety. These include compounds that act through the BZ/GABA receptor system and those that function through the 5-HT_{1A} receptor. In addition, drugs active at other 5-HT receptors have been suggested to be effective anxiolytics. These include the 5-HT_2 and 5-HT_3 antagonists, as well as compounds that act simultaneously at two 5-HT receptors as 5-HT_{1A} agonists and 5-HT_2 antagonists. Recent research suggests that cholecystokinin receptor antagonists may also be anxiolytic. This paper will review evidence for anxiolytic activity for each of these drug classes, concentrating on animal behavior models that involve punished or conflict behavior. The range of compounds effective in the treatment of anxiety attests to the neurobiological complexity of this disorder and to the multiple avenues for intervention, treatment and eventual understanding.

INVITED ADDRESS

Chair: *John G. Grabowski,* University of Texas Health Science Center, Houston, TX.

MEDICATION DEVELOPMENT FOR DRUG ABUSE TREATMENT: CLINICAL RESEARCH APPROACHES. George E. Bigelow. The Johns Hopkins University School of Medicine, Baltimore, MD.

The federal government has mounted an extensive research and development program to identify, evaluate, and bring to clinical availability new medications for the treatment of drug abuse. This presentation will discuss clinical research methods and progress in this drug abuse medications development area. Drug abuse pharmacotherapies might act through any of a number of different pharmacological mechanisms and behavioral mechanisms; these will be outlined, and examples described. The two primary methods for clinical evaluation of potential pharmacotherapies are clinical treatment trials and human laboratory assessments; these methods will be described, and examples provided. Examples will be given of the integration of the two methods within single studies. Data presented will illustrate steps in the development and assessment of buprenorphine as a treatment for opioid abuse, as well as efforts to find pharmacotherapies for treatment of cocaine abuse.

INVITED ADDDRESS

Chair: *Sharon Hall,* VA Medical Center, San Francisco, CA.

SMOKING CESSATION IN CANCER PATIENTS: BIOLOGICAL, CLINICAL AND BEHAVIORAL CONSIDERATIONS. Ellen R. Gritz. Department of Surgery and Jonsson Comprehensive Cancer Center, University of California, Los Angeles, Los Angeles, CA.

The benefits of smoking cessation in individuals already diagnosed with malignant disease have received scant attention. Biological risks of continued smoking, treatment-related morbidities and psychological factors suggest that cessation is an important priority. Studies of cancer patient smoking behavior reveal a high prevalence of addicted heavy smokers. However, the opportunity to capitalize on the "teachable moment" of diagnosis/treatment may lead to enhanced motivation and cessation. Prospective data will be provided from lung, and head and neck cancer patient populations. The role of the physician will be exemplified by a model currently being tested in a randomized controlled trial.

INVITED ADDRESS

Chair: *Klaus A. Miczek,* Tufts University, Medford, MA.

THE NEUROBIOLOGY OF DRUG DEPENDENCE: EVIDENCE FOR AN OPPONENT PROCESS. George F. Koob. Department of Neuropharmacology, Research Institute of the Scripps Clinic, La Jolla, CA.

Previous studies have implicated the region of the nucleus accumbens in mediating the psychostimulant and reinforcing effects of cocaine and amphetamine. The region of the nucleus accumbens has also been established as an important substrate for the acute reinforcing effects of opiates in nondependent rats