reference substances, and to be prepared for the discovery of new drugs and behavioral phenomena in seemingly unlikely contexts I remain convinced that these sister disciplines should pay attention to each other, because there are many insights to be gained by both behavioral pharmacology and toxicology

DRUGS, ENVIRONMENTAL EVENTS AND HUMAN AGGRESSIVE AND ESCAPE RESPONDING Don R Cherek Department of Psychiatry, Louisiana State University Medical Center

An overview of a number of different experiments will be presented which have investigated the relationship between aggressive and escape responding by human subjects and the presentation of aversive stimuli in a controlled laboratory setting, and how these relationships may be affected by drug action The following factors will be discussed (1) effects of instructions and number of sessions on responding, (2) effects of contingencies maintaining responding on drug action, (3) effects of instructions relating to the context of aversive stimulus presentation on drug action, (4) drug effects on temporal relationships between aversive stimuli and aggressive responses, and (5) effects of frequency of aversive stimulus presentation and contingencies on choices between aggressive and escape responding

SYMPOSIUM

Pharmacological Adjuncts in Drug Abuse Treatment
Saturday August 29, 1987 • 11 00 a m –12 50 p m
Marriott Marquis Hotel • Jolson/Cantor Room
Chair *John Grabowski,* Department of Psychiatry, Center for the Study of Drug Development, Tufts University

COCAINE ABUSE NEW AND EMERGING PHARMACOTHERAPEUTIC INTERVENTIONS Frank H Gawin, M D Yale University School of Medicine, Stimulant Abuse Treatment Program, Department of Psychiatry, Yale University School of Medicine, 34 Park Street, New Haven, CT 06511

Recent research has produced encouraging preliminary data on general pharmacological treatments for cocaine abuse as well as on pharmacotherapies whose efficacy is specific to cocaine abusers with Axis 1 psychiatric disorders This presentation will describe pharmacotherapy trials in chronic cocaine abusers as well as recent clinical, diagnostic, and pre-clinical studies Cocaine dependence has long been thought of as a "psychological" addiction without a "physiological" withdrawal syndrome Recent basic research demonstrates that chronic cocaine can cause multiple neurophysiological adaptations in brain reward pathways, and recent clinical research suggests that cocaine abstinence symptoms (1) follow a predictable three phase pattern, (2) include anhedonia consistent with the preclinical studies indicating decreased reward and (3) can be distinguished from coexistent Axis 1 Psychiatric disorders Severe cocaine abuse may thus produce a physiological addiction whose clinical expression is psychological There is no standard pharmacotherapy for cocaine abuse Systematic investigations were begun only two to three years ago New open and double-blind trials indicate that specific pharmacotherapies produce distinct benefits applicable to components of cocaine craving in each withdrawal phase Neurotransmitter precursors may ameliorate acute post-binge symptoms Antidepressant treatment may ameliorate protracted post-cocaine anhedonia and facilitate abstinence in abusers who do not exhibit other depressive symptoms More preliminary work indicates that classically conditioned craving may be ameliorated pharmacologically by dopamimetic and anti-epileptic treatments It is thus likely that pharmacotherapy will be increasingly employed in future stimulant abuse treatment

OPIATE ABUSE TREATMENT DRUG AND PATIENT POPULATION CONSIDERATIONS Maxine L Stitzer, Ph D The Johns Hopkins University School of Medicine, Behavioral Pharmacology Research Unit, Psychiatry Department D-5-West, Francis Scott Key Medical Center, 4940 Eastern Avenue, Baltimore, MD 21224

This paper will review the pharmacological properties of three drugs in relation to their use as treatments for opiate abuse/dependence The major advantages and disadvantages of each agent will be discussed and related to utility of different types of treatment patients Methadone, which is the standard and best currently available treatment for chronic opiate abuse, has several advantages as a treatment agent Its reinforcing effects help to maintain high rates and long durations of treatment participation especially among poorer prognosis patients (i e , lower socioeconomic and social stability) These same reinforcing properties allow for implementation of drug-dispensing contingencies that improve behavioral control Methadone's partial blockade of opiate agonist effects suppresses illicit opiate use during treatment Disadvantages include the physical dependence that is induced and its classification as a narcotic drug which dictates the need for limited treatment availability under rigidly controlled and monitored dispensing procedures Buprenorphine is a promising new mixed agonist-antagonist that is not currently available for drug abuse treatment but that has a profile of effects that should make it a desirable treatment agent for general opiate abusing populations Buprenorphine retains the reinforcing effects of an opiate agonist but produces less physical dependence and stronger pharmacological blockade of opiate effects than direct agonists such as methadone More evaluation is needed before it can be marketed with a drug abuse treatment application Naltrexone is a pure opiate antagonist that has recently been marketed in the US The opiate agonist blockade produced guards against resumption of illicit drug use and may promote extinction of drug-related environmental