Contents

Foreword
William Pollin ........................................ iii

Plenary Session

In Memoriam: H. Frank Fraser, M.D.
Harris Isbell .......................................... 1

Introduction of Nathan B. Eddy Memorial Award Recipient
Sydney Archer ...................................... 3

Recent Studies on Opioid Receptors: Heterogeneity and Isolation
(The Nathan B. Eddy Memorial Award Lecture)
Eric J. Simon ...................................... 5

Memorial Symposium

In Memoriam: Abraham Wikler and H. Frank Fraser--Introductory Remarks
Jerome H. Jaffe ..................................... 14

A Steric Theory of Opioid Agonists, Antagonists, Agonist-Antagonists, and Partial Agonists
William R. Martin ................................. 16

Environmental Influences in the Perception of Pain
Conan Kornetsky ................................... 24

Classical Conditioning in Opiate Dependence
Charles P. O'Brien, Ronald N. Ehrman, and Joseph W. Ternes 35

On the Stimulus Control of Drinking in Alcoholics
Ronald M. Kadden, Ovide F. Pomerleau, and Roger E. Meyer 47
Progress Reports

Progress Report on the Stimulant-Depressant Abuse Liability Evaluation Project
James H. Woods ........................................ 59

Progress Report From the NIDA Addiction Research Center (Preclinical Laboratory), Lexington, Kentucky

Progress Report From the NIDA Addiction Research Center, Baltimore, Maryland
Donald R. Jasinski, John J. Boren, Jack E. Henningfield, Rolley E. Johnson, W. Robert Lange, and Scott E. Lukas ... 69

Antitussive Potencies of l- and d-opiates and Their Inhibition of Codeine Binding
Thuy T. Chau and Louis S. Harris ................................ 77

Inhibition by Adenosine Analogs of Opiate Withdrawal Effects
John F. Tucker, Neil T. Plant, Alexa von Uexkull and Harry O. J. Collier ........................................ 85

Abuse Liability and Behavioral Toxicity Assessment:
Progress Report from the Behavioral Biology Laboratories of the Johns Hopkins University School of Medicine

Chemistry and Pharmacology

Probes for Narcotic Receptor Mediated Phenomena 3. Oxide Bridged 5-Phenylmorphans
Terrence R. Burke, Jr., Arthur E. Jacobson, Kenner C. Rice, Ben Avi Weissman, and James V. Silverton .......... 109

An In Vivo Pharmacological Analysis of Benzomorphan Binding Sites in Rats
Alan Cowan and Debra E. Gmerek .................................. 114

Differential Tolerance and Cross-Tolerance to Chronic Treatment With Mu and Kappa Opioid Agonists in the Rat
Gerald A. Young and Naim Khazan .................................. 121

Relationship of Plasma Level and Pharmacological Activity of Methadone
Shean-Jang Liu and Richard I. H. Wang .................................. 128
Irreversible and Reversible Narcotic Agonists: Discriminative and Analgesic Effects of Buprenorphine, Oxymorphone, and Morphine
Charles P. France, Arthur E. Jacobson, and James H. Woods... 136

Morphine Abstinence Syndrome: Cholinergic Mechanisms in the Ventral Periaqueductal Gray of the Dog
Lawrence G. Sharpe and Wallace B. Pickworth... 143

Behavioral Pharmacology

The Discriminative Stimulus Properties of Cocaine and \( \alpha \)-Amphetamine: A Comparison of Three Routes of Administration
Rene de la Garza, C. E. Johanson, and C. R. Schuster... 150

Alcohol Self-Administration by Female Primates: Effects on Reproductive Function
N. K. Mello, M. P. Bree, J. H. Mendelson, and J. E. Ellingboe... 156

Benzodiazepines: Drug Discrimination and Physiological Dependence
Roland R. Griffiths, Nancy A. Ator, Scott E. Lukas... 163

An Investigation of Brain Reinforcement Systems Involved in the Concurrent Self-Administration of Food, Water, and Morphine
Steven I. Dworkin, John D. Lane, and James E. Smith... 165

Buprenorphine, Heroin, and Methadone: Comparison of Relative Reinforcing Properties
N. K. Mello, M. P. Bree, and J. H. Mendelson... 172

Behavioral Interactions of Opioid Agonists and Antagonists With Serotonergic Systems
Richard H. Rech, David J. Mokler, Randall L. Commissaris, and Judith W. Henck... 179

Bioassay of Subjective Effects Associated With Benzodiazepine Withdrawal in Animals: A Novel Direction in Dependence Research
Michael W. Emmett-Oglesby, David G. Spencer, Jr., Marilyn W. Lewis, and Harbans Lal... 185

Self-Administration of Clonidine and Oxazepam by Methadone Detoxification Patients
Kenzie L. Preston, George E. Bigelow, and Ira A. Liebson... 192

Marijuana, Affect and Tolerance: A Study of Subchronic Self-Administration in Women
Thomas F. Babor, Barbara W. Lex, Jack H. Mendelson, and Nancy K. Mello... 199
Clinical Pharmacology

Oral Fenoprofen Compared to Intramuscular Morphine and Oral Aspirin in Cancer Patients With Postoperative Pain
Robert F. Kaiko, Stanley L. Wallenstein, Jeanne Lapin, and Raymond W. Houde ........................................... 205

Measurement and Extinction of Conditioned Withdrawal-Like Responses in Opiate-Dependent Patients
Anna Rose Childress, A. Thomas McLellan, and Charles P. O'Brien .......................................................... 212

Perinatal Addiction: The Effects of Maternal Narcotic and Nonnarcotic Substance Abuse on the Fetus and Neonate
Ira J. Chasnoff, William J. Burns, and Sidney H. Schnoll .............................................................. 220

Drug Preference in Humans: Lorazepam
Harriett de Wit, C. E. Johanson, and E. H. Uhlenhuth ............................................................... 227

Ultradian Consummatory Cycles and Smoking
Judith Green and Walter N. Tapp ................................................................. 233

Clinical Evaluation of Mecamylamine for Withdrawal From Nicotine Dependence
Forest S. Tennant, Jr., Anita L. Tarver, and Richard A. Rawson .......................................................... 239

Drug Abuse Treatment

Adverse Effects of Cocaine Abuse
Arnold M. Washton and Andrew Tatarsky ............................................................... 247

Comparison of a Behavioral and a Pharmacological Treatment for Reduction of Illicit Opiate Use
Maxine L. Stitzer, Mary E. McCaul, George E. Bigelow, and Ira A. Liebson .................................................. 255

Methadone Plasma Levels and Persistent Drug Abuse in High Dose Maintenance Patients
Forest S. Tennant, Jr., Richard A. Rawson, Allen Cohen, Anita Tarver, and Diane Clabough ..................... 262

Methadone Detoxification: Effects of Methadone Dose Versus Time in Treatment
Mary E. McCaul, Maxine L. Stitzer, George E. Bigelow, and Ira A. Liebson ............................................... 269

Abstinence Treatments for Opiate Addicts: Therapeutic Community or Naltrexone?
Isabelle Arndt, A. Thomas McLellan, and Charles P. O'Brien .............................................................. 275
An Evaluation of Neonatal Abstinence Treatment Modalities
Loretta P. Finnegan, Herman Michael and Betty Leifer...282

Five-Year Follow-up of Opiate Addicts With Naltrexone and Behavior Therapy
Richard A. Rawson and Forest S. Tennant, Jr...289

Social Control as an Explanation of Sex Differences in Substance Use Among Adolescents
Margaret E. Ensminger, C. Hendricks Brown, and Sheppard G. Kellam...296

Criminality During the Life Course of Heroin Addiction
John C. Ball and David N. Nurco...305

Depressive Symptoms in Drug Abuse Treatment Clients: Correlates, Treatment, and Changes
Harold M. Ginzburg, Margaret Allison, and Robert L. Hubbard...313

**Poster Session Abstracts**

Striatal Dopamine Receptor Function in Morphine-Tolerant Dependent Rats: Influence of Hypothalamic Peptides
Hemendra N. Bhargava...320

Drug Preference and Mood in humans: Mazindol and Phenylpropanolamine
L. D. Chait, E. H. Uhlennuth, and C. E. Johanson...327

The Use of Phenobarbital in Treating Abstinence in Newborns Exposed In Utero to Psychoactive Agents
Loretta P. Finnegan, Herman Michael, and Betty Leifer...329

The Incidence of Violence in the Lives of Pregnant Drug-Dependent Women
Dianne O'Malley Regan, Betty Leifer, and Loretta P. Finnegan...330

Cerebral Ventricular Changes in Newborns Exposed to Psychoactive Agents In Utero
Matthew Pasto, Leonard Graziani, Betty Leifer, Sandra Tunis, Theresa Matteucci, and Loretta P. Finnegan...331

Depression, Self-Concept, and Violent Experience in Drug-Abusing Women and Their Influence Upon Parenting Effectiveness
Dianne O. Regan, Betty Leifer, and Loretta Finnegan...332

The Effects of RO15-1788, Alone and in Combination With Diazepam, on Ethanol-Induced Loss of Righting Reflex in Rats
B. A. Regan and D. E. Clody...333
Read by Title

Guanabenz Acetate: A New, Long-Acting Alpha-Two Adrenergic Agonist for Opioid Withdrawal
Forest S. Tennant, Jr., and Richard A. Rawson

Opioids Alter Tumor Cell Growth and Differentiation In Vitro
Ian S. Zagon and Patricia J. McLaughlin

Annual Reports

Arthur E. Jacobson

Evaluation of New Compounds for Opioid Activity (1983)
James H. Woods, Gail D. Winger, Fedor Medzihradsky, Charles B. Smith, and Jonathan L. Katz

Dependence Studies of New Compounds in the Rhesus Monkey, Rat, and Mouse (1983)
M. D. Aceto, L. S. Harris, and E. L. May

Subject Index

Author Index

List of Monographs