June 1, 1975

psychopharmacology division 28 newsletter

SPRING EXECUTIVE COMMITTEE MEETING

The Division 28 Executive Committee met on May 30 in Princeton, New Jersey, for its Spring Meeting. Agenda items included: reports of the by-law vote by the membership, reports of progress of NIDA-Liason subcommittees in preparation for final recommendation this fall, discussion of mechanisms for encouraging student membership, and the ASPET-Liason Committee report. Minutes of the meeting will be included in the August Newsletter.

NIMH RESEARCH GRANTS, FY 1974, RELEVANT TO PSYCHOPHARMACOLOGY

Comparitive drug studies of aggressive mechanism
Russell C. Leaf
Rutgers State University
$43,452

A new method for studying drug effects on learning
Donald M. Thompson
Georgetown University
$26,171

Drug-schedule interactions and intercurrent behavior
Fogle C. Clark
University of Mississippi
$45,696

Behavioral effects of drugs in Macaca Mulatta
Murray E. Jarvik
UCLA
$93,571

Drugs and perception: An experimental analysis
James B. Appel
University of South Carolina
$29,969

Effects of drugs on reactions to aversive stimuli
Roger T. Kelleher
Harvard Medical School
$65,677

Brain monoamines and conditioned behavior
Lewis S. Seiden
University of Chicago
$36,698

Effects of psychopharmacologic agents on behavior
Bernard Weiss
University of Rochester
$62,680

Catecholamines as central nervous transmitters
Kenneth E. Moore
Michigan State University
$48,998

LSD, psychotogenic procedures and brain neurohumors
Daniel X. Freedman
University of Chicago
$61,618

Behavior and drug effects during chronic stress
Herbert Barry III
University of Pittsburgh
$42,793

Effect of central nervous system lesions on drug action
John A. Harvey
University of Iowa
$63,550

Drug effects on behavior maintained by aversive events
James W. McKearney
Worcester Foundation
$83,111

Neurochemical actions of psychotropic drugs
Solomon H. Snyder
Johns Hopkins University
$140,600

Neurochemical correlates of behavior
Morris H. Aprison
Indiana University
$120,613

Pediatric psychopharmacology
Robert L. Sprague
University of Illinois
$141,365

WHAT'S HAPPENING AT...

THE WORCESTER FOUNDATION FOR EXPERIMENTAL BIOLOGY
contributed by James W. McKearney

Current research at the Worcester Foundation for Experimental Biology (James W. McKearney and James B. Smith) is broadly concerned with (a) specification of the ways in which the behavioral effects of drugs depend on the past and present details of that behavior's control by the environment, and (b) study of the behavioral pharmacology of narcotics, narcotic antagonists, their interactions with each other and with other commonly used drugs.

Recently published and ongoing experiments are concerned with investigation of the extent to which similar schedule-controlled patterns of responding maintained by different events (e.g. food vs. electric shock) may be either similarly or differently affected by particular drugs, and with examination of the influence that coexisting behaviors may have on the effects of drugs. The work with narcotics is focused on specification of the basic behavioral pharmacology of these drugs and their interactions with other compounds, and with the development of tolerance under a variety of different conditions.

In addition to drug experiments, we continue our interest in basic research on the control of behavior by its consequences (particularly aversive consequences).

THE UNIVERSITY OF NORTH CAROLINA
contributed by D.E. McMillan

The Behavioral Pharmacology Division of the Department of Pharmacology at the University of North Carolina occupies approximately 1700 square feet of space in the Swing Building, a building constructed in 1970. The Swing Building is located on the edge of the Health Affairs part of the campus, about one block from the remainder of the School of Medicine and about four blocks from the Department of Psychology with whom the Division is associated through joint appointments. At present the Division consists of two full-time faculty members (Dr. D.E. McMillan and Dr. J. David Leander), a visiting professor, a postdoctoral fellow, a predoctoral fellow and a technician.

The Division is pursuing research in three different areas: general behavioral pharmacology, drug abuse, and behavioral toxicology. About half of the research involves rats and about half involves pigions, with a few isolated experiments being conducted with squirrel monkeys.

Among the experiments in general behavioral pharmacology are experiments being done by Dr. Juergen Harting, a visiting professor from Merck Pharmaceuticals in West Germany, on the effects of drugs on repeated acquisition of response chains. Using variations of procedures described by Boren and by Thompson, Dr. Harting has studied the effects of a variety of drugs on the repeated acquisition of a serial position sequence by pigeons. In addition, Dr. Harting has been studying a number of drug interactions using avoidance baselines in rats.

Dr. Sander Stern, a postdoctoral fellow, is interested in fine level analysis of operant responding and in toxicology. He has been studying several schedules where cumulative response durations are rewarded and

is now beginning to describe some drug effects. Dr. Stern is also using a "strip key" to study response location. Of particular interest here will be experiments to determine if increases in the variability of response location produced by punishment are reversed by drugs that increase rates of punished responding. Dr. Stern hopes to develop both the duration and the location techniques for use in studies on the behavioral effects of environmental toxicants.

Dr. McMillan and Dr. Leander have been devoting most of their time to the development of oral models for studying drug abuse patterns in rats. Several techniques have been employed to induce animals to ingest opiates and ethanol in quantities sufficient to produce physical dependence.

Dr. Leander also has been conducting experiments with a number of major tranquilizers and antidepressants on responding maintained by positive schedules of reinforcement. He has found a number of interesting differences in the rate-dependent effects of different classes of phenothiazines. More recently these experiments have been extended to the narcotics and narcotic antagonists. One of the most interesting of these experiments has resulted in his finding that the powerful narcotic antagonist naloxone fails to block the effects of the narcotic, meperdine, in rats and pigeons in a variety of behavioral situations.

Dr. McMillan has continued to study the effects of drugs on punished responding. The interaction of drugs with punished responding is being studied while schedules of positive reinforcement, schedules of punishment and body weight are varied. Recently, Dr. McMillan has become interested in drug effects on FI responding at FI values much larger than those usually studied in behavioral pharmacology.

The field of behavioral toxicology represents a relatively new interest in the Division. Some preliminary experiments have already been conducted on the effects of heavy metals and insecticides on operant behavior. The Division is associated with a large group in the School of Medicine that is studying the neurobiology of environmental pollutants; thus, efforts in this area will be increasing.

Research opportunities in Behavioral Pharmacology are also available in the Department of Psychology under the direction of Dr. Linda Dykstra and Dr. Marcus Walker. Dr. Dykstra also holds a joint appointment in Pharmacology.

Research facilities in Psychology include approximately 1000 square feet in Davie Hall, also a relatively new building. Three predoctoral students are presently working in this area. Research in the Department of Psychology is being carried out in general behavioral pharmacology with pigeons, squirrel monkeys, and with man. Facilities are also available for work with rats.

Dr. Dykstra has been conducting experiments with a number of narcotic analgesics and narcotic antagonists using procedures designed to measure their analgesic effects. Titration schedules are now being used and an experiment employing signal detection techniques to examine analgesia is being set up.

Dr. Walker has been working with human subjects, both student and clinical population, using verbal behavior as an operant and observing the effects of alcohol.

This brief outline by no means covers all of the experiments and interests of researchers in the Departments of Pharmacology and Psychology, but it does reflect some of the more

important research programs in behavioral pharmacology at the University of North Carolina. Both Departments offer Ph.D.'s with a major in behavioral pharmacology and joint programs between the two Departments are available. A major in behavioral pharmacology is also available through the Neurobiology Program at the University.

RUTGERS MEDICAL SCHOOL
contributed by Peter Carlton

There have been two recent developments in Psychopharmacology within the Department of Psychiatry at Rutgers Medical School.

The first of these is a research project in Human Psychopharmacology that is being undertaken by Peter Carlton and Len Cook, who is now Adjunct Professor of Psychiatry here as well as being Associate Director of Pharmacology at Hoffman-LaRoche. The Project is aimed at generating operant baselines in man that will prove to be sensitive to acute doses of currently used psychoactive drugs. In addition to providing objective information concerning the actions of these drugs, the procedures developed may also come to be used to provide reliable indices of the course of drug treatment in patients manifesting a variety of psychiatric disorders.

The second development is the prospect of a Training Program in Psychopharmacology that is now pending. This Program will provide stipends for four Predoctoral and four Postdoctoral Fellows. These Fellows will participate in a series of courses, seminars, and tutorials directed toward providing a broad base of competence in Behavioral Pharmacology, Pharmacology, Neurochemistry, and aspects of Clinical Psychiatry. In addition, all Fellows will engage in a variety of independent research projects. An announcement about funding and details of the Program will be made in the Newsletter and elsewhere.

SUMMARIES OF RECENT PUBLICATIONS OF SPECIAL INTEREST

Honigfeld, G., and Howard, A. Psychiatric Drugs: A Desk Reference. New York: Academic Press, 1973.

Honigfeld and Howard have written a brief overview of the clinical uses of psychiatric drugs, to be used as a desk reference by nonmedical health professionals. The clinical indications, contraindications, side effects, and recommended dosages of each class of psychiatric drugs are summarized. Other topics briefly discussed include drug treatment of drug addiction and alcoholism, new developments in drug treatment, and the management of drug emergencies. Trade and generic drug name lists and drug identification tables (based on their physical characteristics) are also presented. Psychiatric Drugs provides a good source of drug information and a general introduction to psychiatric drug therapy.

Lewis, M.F.(Ed.). Current Research in Marijuana, New York: Academic Press, 1972.

This book represents the proceedings of a symposium held in Oklahoma City on June 13-15, 1972. A few of the participants are distinguished, but the majority are fairly obscure in the eyes of this author.

A wide variety of topics are covered, the emphasis being placed on tolerance. An extension of this research covers behavioral toxicity, effects of THC on simple and complex learned behaviors, and the effects of altitude and psychological stress on responses. Five chapters are devoted to human research in such areas as chronic effects of THC on sleep, visual functions, driving performance and flying performance.

Most chapters are well documented and the research descriptions are varied in scientific style, from journal format to easy reading. The editor has

been judicious in choosing articles, since this author found no evidence indicating polemics. This book is suggested for an audience of scientists with a background in psychology and pharmacology - it is not intended for the neophyte.

Harvey, J.A.(Ed.). Behavioral Analysis of Drug Action: Research and Commentary. Illinois: Scott, Foresman and Co., 1971.

In Behavioral Analysis of Drug Action, John A. Harvey introduces the reader to behavioral pharmacology with a collection of reprinted research articles on the relationships between drugs, brain, and behavior. The contributing authors (P.B. Dews, J.A. Harvey, D.A. Overton, O.S. Ray, and L.S. Seiden) preface their articles with an introduction to their area of research interest and the developments that directed their investigations. The authors also include a re-evaluation of their original research in light of current findings. Graduate students interested in the development of research ideas and the treatment of methodological problems in behavioral pharmacology may find the authors' introductions and commentaries of value. Explanatory and interpretive materials have been included by Harvey for those with no background in this area.

ON THE LEGISLATIVE FRONT
BILLS OF SPECIAL INTEREST
INTRODUCED IN THE 94TH CONGRESS
AS OF 5/14/75

H 556 Introduced 1/14/75
by Koch
To amend the Public Health Service Act to provide for a National Center for Clinical Pharmacology, to provide support for the study of clinical pharmacology and clinical pharmacy, and to provide for review of drug prescribing; and to amend the Federal Food, Drug, and Cosmetic Act to provide for additional regulation of drug promotions, to provide for recordkeeping and reporting for all drugs, to provide for certification of programs respecting manufactures' representatives, to provide for the submission of data relating to therapeutic equivalence of drugs, to provide for the certification of certain drugs, to provide for a national drug compendium, to provide additional drug information to consumers, to establish a code system for the identification of all drugs, to provide for a recall of adulterated or misbranded foods, drugs, and cosmetics (To Interstate and Foreign Commerce).

H 561 Introduced 1/14/75
by Koch
To amend certain provisions of the Controlled Substances Act relating to Marihuana (To Interstate and Foreign Commerce).

H 865 Introduced 1/14/75
by Peyser and Rangel
To prevent the use of Heroin for any drug maintenance program (To Interstate and Foreign Commerce).

H 1592 Introduced 1/17/75
by Carney
To amend the Act of August 24, 1966, as amended, to assure humane treatment of certain animals (To Agriculture).

H 3895 Introduced 2/27/75
by Roybal
To provide for a study and evaluation of the ethical, social, and legal implications of advances in biomedical research and technology (To Interstate and Foreign Commerce).

H 4461 Introduced 3/6/75
by Teague and Mosher
To establish a science and technology policy for the United States, to provide for scientific and technological advice and assistance to the President, to provide adequate administrative organization to assure effective federal support and utilization of research and

development, to amend the National Aeronautics and Space Act of 1958, to amend the National Science Foundation Act of 1950 (To Science and Technology and Government Operations).

HCR 42 Introduced 1/14/75
by Whitehurst
Pertaining to the methods used on animals in research (To Science and Technology).

S 32 Introduced 1/15/75
by Kennedy, Magnuson, Moss (Utah), Tunney, Bentsen, Brooke, Cannon, Case, Cranston, Culver, Hart, (Mich.), Hatfield, Humphrey, Inouye, Javits, Johnston, Leahy, Mansfield, McGee, McGovern, Mondale, Montoya, Pell, Randolph, Sparkman, Stafford, Weicker, and Williams
See below.

S 989 Introduced 3/6/75
by Kennedy, Javits, Williams, Schwieker, Pell, Hathaway, Clark, McGovern, Abourezk, and Randolph
To amend the Public Health Service Act to revise and extend the programs of assistance under Title VII for training in the health and allied health professions, to revise the National Health Service Corps program, and the National Health Service Corps scholarship training program (To Labor and Public Welfare).

S 1318 Introduced 3/24/75
by Nelson
To amend and supplement the Federal Food, Drug, and Cosmetic Act with respect to the manufacture and distribution of drugs (To Labor and Public Welfare).

S 1450 Introduced 4/17/75
by Javits, Cranston, Brooke and Nelson
To amend certain provisions of the Controlled Substances Act relating to Marihuana (To Judiciary).

S 1467 Introduced 4/17/75
by Kennedy
To provide for the establishment of the National Center for Health Education and Promotion and the Institution for Health Education and Promotion to advance the national health; to reduce preventable illness, disability, and death; to moderate self-imposed risks, to promote progress and scholarship in consumer health education and preventive medicine (To Labor and Public Welfare).

The information in this column was taken from the Congressional Index of the 94th Congress. Copies of bills may be obtained by writing to House Document Room, House of Representatives, Washington, D.C. 20515, for House bills, and to Senate Document Room, U.S. Senate, Washington, D.C. 20510, for Senate bills.

S 32

This bill to establish the "National Policy and Priorities for Science and Technology Act of 1975" was introduced on January 15, by Senator Kennedy and 28 other senators. The bill has been referred to the Committees on Labor and Public Welfare, Commerce and Aeronautical and Space Sciences. One of the main purposes of the proposed legislation is to provide "a more systematic approach...to identify critical and emerging national problems and to analyze, plan and coordinate Federal science and technology programs, policies, and activities intended to contribute to the resolution of such problems..." Toward this end, the bill proposes establishment in the Executive Office of the President a Council of Advisors on Science and Technology, composed of three full-time members. These members would be appointed by the President with the advice and consent of the Senate. This Council, funded at the level of $4 million for fiscal year 1976, would review the State of Scientific Knowledge annually and make recommendations for funding priorities to the President and Congress.

A second component of the bill would provide for a Federal Coordinating Committee for Science and Technology, presided over by the President's Advisor on Science and Technology. Members would come from various Federal Departments, including Health, Education and Welfare, the National Science Foundation and the Environmental Protection Agency. The Committee would be charged with the responsibility of coordinating the various Federal Programs to provide for more effective planning and administration of Federal scientific and technological programs.

The third component and one which may be of special relevance to Division 28 members, is a revision of the National Science Foundation policy board. The mechanics are complex and probably not relevant here, but one set of provisions includes establishing a Continuing Education in Science and Engineering Program. The purpose is to provide grants to institutions and direct fellowships to scientists who have been engaged in their careers for at least five years. Their purpose is to provide scholars with new knowledge, techniques, and skills which will enable them to render more valuable contributions to the Nation. The NSF program (total) is proposed to be funded at $1.5 million in FY 1976.

The final component of the bill, probably of least concern to most Division 28 members, is the establishment of State and Regional Science and Technology Programs. This program would be funded at $2.5 million in FY 1976.

The proposed overall funding levels are $8 million for FY 1976 and $14 for FY 1977. Needless to say, the Council of Advisors on Science and Technology will be in an extremely important position in terms of setting priorities for research funding. The make-up of the three-person committee would be of critical importance. Once the committee is established it will become essential that professional organizations such as A.P.A. Division 28 have input into the process of acquiring information regarding the state of knowledge and priority areas for funding.

In recent correspondence with the Newsletter staff, Senator Kennedy has indicated that comments on the bill are welcome. Interested members should contact the committees indicated above or write to Senator Kennedy for details.

WANT ADS

POSITION DESIRED

MA in psychology, 10 years experience in physiological psychology. Including work in CNS and psychopaarmacology. Desires position. Contact Viola F. Hayhurst, Gerontology Research Center, Baltimore City Hospitals, Baltimore, Maryland 21224.

Send any Position Available or Position Desired ads to be included in the August Newsletter to:

Ms. Mary Rice
Psychiatry Research Unit
Box 392 Mayo
University of Minnesota
Minneapolis, Minnesota 55455

Travis Thompson, Ph.D., Editor
Mary Rice, Assistant Editor

Box 392 Mayo
University of Minnesota
Minneapolis, Minnesota 55455

DR VICTOR G LATIES
U OF ROCH M CSO 2336
DEPT RADIAT BIOLO
ROCHESTER N Y 14642