PSYCHOPHARMACOLOGY NEWSLETTER

(Division 28 - The American Psychological Association)

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D. R. Cherek, Editor

A MESSAGE FROM THE PRESIDENT

The October, 1982 issue of the American Psychologist contains an important document prepared by four contemporary leaders in the fields of behavioral pharmacology and drug abuse. The paper calls attention to the role of environmental variables in determining the abuse of and dependence on drugs and other substances, and it emphasizes the value of the experimental analysis of behavior in understanding how one's vulnerability to drug dependence can be modulated. Whatever the reason for the preparation of the document in the first place, its publication comes at a time when the Reagan administration has been expressing increased concern for better methods for preventing drug abuse and at a time when the administration is launching a major enforcement program to stop the shipment of drugs into the southeastern United States.

The significance of the document is that it places in perspective what many members of the Division of Psychopharmacology have accepted for some time, that drug or substance abuse is a function of behavioral or environmental variables and is not attributable solely to pharmacological considerations. The conceptualization of substance abuse as a behavioral problem has evolved out of extensive laboratory experiments with animals and with humans, and it is based on solid scientific data derived from research in behavioral pharmacology and the experimental analysis of behavior. The author's call for a continuation of basic and clinical research in the area is appropriate and justified. Only through research can society hope to implement more effective preventive measures and have better therapeutic approaches available in the future.

It is sad and ironic that behavioral pharmacology and the entire scientific community are currently faced with the threat that research with animals will no longer be possible. Various "animal rights" groups are marshalling forces to get restrictive legislation, through Congress, to engender enough political support to interrupt the approval of funds for research involving animals, and to rally enough public sentiment to force the closing of laboratories engaged in research with animals. How can science conduct the appropriate and necessary experiments on drug abuse and drug dependence if the "animal rights" groups succeed and achieve their stated objectives? Falk, Schuster, Bigelow and Woods make it clear in their contribution to the American Psychologist that studies with laboratory animals on the behavioral effects of drugs are essential if progress toward new preventive and therapeutic modalities is to continue. The extreme concordance between the effects of drugs in humans and in animals indicates that drug abuse is not uniquely human, that there are behavioral and biological determinants of drug effects that transcend special cognitive and intellectural abilities attributed to humans. It is encumbent upon all of us, then, to ensure that the opportunity to conduct appropriate experiments, to exercise scientific inquiry, is preserved. Surely, the generalities that result from an experimental analysis of human and non-human drug-taking behavior will have greater value in devising efficacious methods for preventing drug dependence.

L. D. Byrd

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JOINT MEETING OF DIVISION 28 WITH THE AMERICAN SOCIETY FOR PHARMACOLOGY AND EXPERIMENTAL THERAPEUTICS IN 1984

In 1974 Division 28 cosponsored with ASPET a series of symposia at the Federation of American Societies for Experimental Biology (FASEB) meeting entitled, "The Current Status of Behavioral Pharmacology". Plans are underway to repeat the joint Division 28-ASPET Meeting in 1984 in conjunction with the FASEB Meeting scheduled for April 2-6 in St. Louis. A formal request to ASPET has been made to allot three days for these symposia and to give Division 28 members guest member status for that meeting. A formal response from ASPET has not been received, but the prospects are good for approval. You may want to mark these dates on your calendar. Program ideas, etc., should be directed to Bob Balster or Lew Seiden, who are serving as Division 28 organizers for this joint meeting.

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MEMBERSHIP IN THE AMERICAN SOCIETY FOR PHARMACOLOGY AND EXPERIMENTAL THERAPEUTICS

Membership in ASPET for psychologists engaged in pharmacological research. A number of members of Division 28 are also members of ASPET. Information on membership requirements and nomination forms are printed periodically in The Pharmacologist; for example, pages 40-42, Volume 24, Number 1, 1982. This information can also be obtained by writing ASPET, 9540 Rockville Pike, Bethesda, MD 20814.

Various categories of membership are available. Regular membership is for independent investigators who have "conducted and published original investigation in pharmacology". Nomination by two sponsors who are currently regular members of ASPET is required. Membership is not automatic since evidence of original scholarship is required. Other categories of membership are affiliate membership (primarily for non-researchers and non-U.S. citizens), and student/fellow membership (graduate students in pharmacology or postdoctoral fellows). Members receive Federation Proceedings, The Pharmacologist, directories, voting and other privileges. Regular members dues for 1983 are $65. Other categories of membership are less (affiliate, $50; student/fellow $25). Psychologists who are interested in professional affiliation with pharmacologists are urged to apply.

Robert L. Balster.

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ANNOUNCEMENT OF RESEARCH CONSULTATION

The UCLA Center for the Study of Adolescent Drug Abuse Etiologies has received a small seed-money grant from the National Institute on Drug Abuse for the next five years to provide collaboration with, and consultation to, researchers in the areas of drug use, drug abuse, drug treatment evaluation, and psychopharmacology. The UCLA Center will provide expertise in causal modeling, log-linear analysis, multivariate statistics, and evaluation. Outside collaborative researchers would provide data sets of interest to the UCLA Center staff and NIDA. Limited funds are available at UCLA to pay for computer time, programming and analysis staff, and report preparation expenses. Those interested should contact:

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Department of Psychology
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PRE AND POSTDOCTORAL TRAINING PROGRAM: NEUROTOXICOLOGY PROGRAM, DEPARTMENT OF ENVIRONMENTAL HEALTH, UNIVERSITY OF CINCINNATI

The program in neurotoxicology is a subspecialty within the area of toxicology which focuses upon the effects of toxic chemicals on living organisms. This training program is affiliated with the Division of Toxicology and the Division of Bio-Environmental Sciences within the Department of Environmental Health. The faculty consists of members with backgrounds in neurochemistry, electrophysiology, physiological psychology and psychopharmacology. Research interests of the faculty include: effects of environmental agents on neurochemistry, neurophysiology, and behavior; effects of pregestational, gestational and/or neonatal exposure to toxins on behavioral development; development of screening procedures for the detection and understanding of neurotoxins; and collaborative studies with teratologists, biochemists, pathologists, and other environmental health professionals.

Individuals with backgrounds in the biological and behavioral sciences who have an interest in studying the effects of neurotoxins on the neurochemical, electrophysiological and behavioral integrity of human and/or animal models are encouraged to apply. The toxicology training program currently supports about 30 predoctoral and 6 postdoctoral graduate students through National Institute of Health, university and industry sponsored fellowships. The training program conforms to the general requirements for the Ph.D. degree in the Department of Environmental Health, and, in addition, emphasizes the areas of psychology, toxicology, and neuroscience. Entrance requirements for the Ph.D. program include a baccalaureate degree in psychology, biology, chemistry or related fields.

Additional information and application forms can be obtained by contacting:

I. A. Michaelson, Ph.D.
Acting Head
Neurotoxicology Program
Department of Environmental Health
University of Cincinnati
3223 Eden Avenue
Cincinnati, OH 45267

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REPORT OF THE NEUROBEHAVIORAL TOXICITY TEST STANDARDS COMMITTEE

Congress, in its considerable wisdom, passed the Toxic Substances Control Act (PL94-469) in 1976 to protect the public from unreasonable risk of injury to health or the environment resulting from the use of chemicals from creation to disposal. It mandated a policy that adequate data should be developed with respect to the effect of chemical substances on health and the environment and that development of such data is the responsibility of those who manufacture or process the substances. The Environmental Protection Agency must tell industry what data to provide and instruct them how to generate it. Behavioral disorders are explicitly included in the definition of adverse health effects.

In 1980, EPA announced its intention to propose test rules that would evaluate the toxicity of chloromethane and some chlorinated benzene compounds. Behavioral, neurologic and tetratogenic effects of these compounds were of expressed concern, and the agency explicitly sought comment on these effects and on how to evaluate experimentally the associated hazards.

A number of division members felt it important to support EPA's expression of concern and to discuss testing strategy to some extent. A committee of Bob Balster, Larry Byrd and myself was formed and approved by the Division. Comments were prepared and circulated to the Executive Board for approval before submission to EPA by the President of Division 28.

Subsequently, EPA expressed concern about the phenylenediamines because they seemed to have some CNS toxicity, e.g., lethal convulsions occurred a few minutes after the application of very small amounts to the skin of a rabbit. We recommend that some more quantitative information be collected on these agents, and we suggested some general testing strategies. In addition, EPA prepared test standards ("guidelines") for the evaluation of effects expressed in changes in motor activity, neurophysiology and neuropathology, and standards for organophosphorous compounds (the hen test); comments were collected on these standards.

To date, we have received no formal acknowledgement or reply to our comments, although the agency is required to do so. Indeed, EPA is under court order to respond to the 11 lists of chemicals that deserve priority attention. Since the law was enacted, however, the administrator has issued no test rules! In fact, the agency has done little with regard to toxic substances at all, judging by the public record. The chemicals we have commented on have been scheduled by the court for rule making in the first months of 1983, so we will soon see whether we have had any impact at all after a lag of 2.5 years.

Judging from recent decisions by Ann Gorsuch, the EPA administrator, there is little reason to be optimistic that this administration will adequately implement minimal testing requirements for any toxicity evaluation, despite her protestations to the contrary. Since this is a public process of regulatory decision-making that bears directly on biological endpoints of interest to the Division, it is the intention of this committee to continue to respond to relevant actions of the agency during public comment periods. The comments of the committee are circulated to the members of the Executive Board before submission, and are available to any interested member of the Division. We should not allow the gored ox to stand alone bellowing into the public record.

Ron Wood, Chair
Neurobehavioral Toxicity Text Standards Committee

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BEHAVIORAL PHARMACOLOGY AND TOXICOLOGY AT THE UNIVERSITY OF ROCHESTER

Harold Hodge, a prominent toxicologist interested in metals, noticed behavioral changes in animals exposed to inorganic mercury vapor in the early 1960's. Seeking some help, he was referred to Peter Dews. A technician was dispatched to Boston to learn how to snap up (remember snap leads?) a multiple fixed-interval fixed-ratio schedule, and one of the first experiments in behavioral toxicology using schedule-controlled behavior was underway (Armstrong, et al., Am. Ind. Hyg. Assoc. J. 24:366-375, 1963). Recognizing the need for competent professionals, Bernie Weiss and Vic Laties were recommended for a new toxicology program in the Department of Radiation Biology and Biophysics. Bernie and Vic packed up their families, a few boxes, the Linc computer, and a dozen monkeys, and were on their way in no time from Johns Hopkins to start a program which remains in good health twenty years later.

Bernie's omnivorous interests are well known; he is currently working on motor control disturbances produced by major tranquilizers and toxicants. Vic continues to be interested in schedule-controlled behavior and the modulation of chemical effects by stimulus control. Bill Merigan was appointed assistant professor of opthalmology in 1979 and has interests in the psychophysics of vision and in using toxicants to illuminate mechanisms of visual function. Ron Wood is an assistant professor of toxicology and is interested in the stimulus properties and behavioral effects of gases and volatile chemicals. Deborah Cory-Slechta is a research associate interested in lead and schedule-controlled behavior. Sander Stern is also a research associate interested in the stimulus properties and behavioral effects of microwaves and electric fields. Our graduate student and postdoctoral fellow population has recently turned over, and we now have: Chris Newland, a postdoc from Jack Marr, and a toxicology graduate student, D. Cooper Rees. We all share an interest in schedule-controlled behavior and the effects of drugs and chemicals.

We are nestled in an Environmental Health Sciences Center in the Division of Toxicology. There is strong interest in the nervous system, behavior, and vision at the University within the Departments of Psychology, Anatomy, and the Centers for Brain Research and Visual Science. There are strong support services for toxicology as well: an analytical core, neuropathology, biostatisticsand veterinary medicine and pathology.

Support for training is derived from a toxicology training grant for pre- and postdoctoral fellows, and from departmental coffers. We currently have funds to study: heavy metals; lead; toxicity expressed in vision; motor disorders; drug self-administration; solvents and airborne irritants; electromagnetic radiation; and, of course, psychopharmacologic agents.

Ron Wood

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ANIMAL RIGHTS ACTIVITY AT THE UNIVERSITY OF FLORIDA

A small, but very vocal group of animal rights activists in the Gainesville (site of U.F.) area have brought considerable pressure to bear both on the University and individual researchers. Letters questioning both the morality and necessity of certain research appear with considerable frequency. Interestingly, targeted research so far has included only projects using cats, dogs, or non-human primates.

In reaction to activity by the Advocates for the Moral Re-evaluation of Animal Experimentation (AMRAE), the University has established an institutional review board which evaluates on-campus animal research. The committee is chaired by a veterinarian and consists of members from each of the colleges in which animals are studied, e.g., medicine, veterinary medicine, arts and sciences. Also included are two community members, one a practicing veterinarian and the other a member of the humane society. The committee reviews all extramural grant proposals processed by the Office of Sponsored Research. This committee (perhaps unfortunately) has been given the same charge as NIH committees, viz., it is asked to determine the scientific merit of research as well as to determine if the research has a reasonable chance of resulting in societal benefit.

Recently, a grant proposal of mine, concerning effects of chronic cocaine administration on operantly conditioned behavior of squirrel monkeys, was subjected to extra scrutiny by the animal care committee. In an open meeting, attended not only by the committee, but also by the media and a contingent of animal rights activitists, I was asked to justify my work on largely practical grounds (certainly, little attention was paid to scientific considerations). Fortunately, I was able to make a reasonable case, and the committee found no reason to block the research. Nevertheless, it is upsetting that a committee that does not have the proper expertise has been asked to render judgements on scientific merit. Quite unfortunately, scientific merit in this case becomes potential, readily visible societal gain. So far, no one with research interests that are purely basic has been questioned by the committee, and so far no one's project has been stalled. The committee, however, has virtually no understanding of, or appreciation for, behavioral research, so projects in this vein seem especially vulnerable.

Another result of the activity of AMRAE has been increased attention to security in our animal care facilities. Gainesville's most vocal advocates against animal research apparently were involved in the recent theft of cats at Howard University and also apparently participated in the illegal sequestering of monkeys from Taub's lab. Consequently, we fear that illegal activity may be in the offing, especially since the University's committee has yet to curb anyone's research activity.

- Marc N. Branch

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Congressional Funding

Congress passed a Continuing Resolution in late December which is more favorable to the research community than the President's budget request. This Continuing Resolution (CR), P.L. 97-377 for fiscal year 1983 contains a $360 million or 10 percent increase for the National Institutes of Health. This level of funding would allow NIH to fund approximately 5,000 new and competing research grants. The following appropriation figures were obtained from Report No. 83-1 Jan. 1983 AAMC President's Weekly Activities Report.

Appropriations (in millions)

ADAMHA	Fiscal Year 1982	Fiscal Year 1983 President's Request	Final CR
NIMH			
Research	141.1	150.0	152.3
Research Training	15.4	14.4	15.3
NIDA			
Research	41.0	46.3	47.4
Research Training	0.8	0.9	0.9
NIAAA			
Research	23.4	32.9	33.5
Research Training	1.1	1.1	1.1
NIH			
NCI	943.0	955.4	983.6
NHLBI	559.6	577.1	622.7
NIDR	72.0	74.5	78.9
NIADDK	368.2	379.0	412.2
NINCDS	265.9	274.5	296.7
NIAID	235.9	246.0	273.6
NIGMS	335.5	345.6	369.6
NICHD	225.3	233.6	253.6
NEI	127.4	131.5	141.6
NIEHS	154.3	157.4	164.4
NIA	81.9	84.5	94.0
Veterans Administration			
Medical Research	140.8	138.0	152.7

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APPRECIATION

The members of Division 28 wish to express their appreciation to the following corporate affiliates for their support during the past year.

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Members wishing to submit information or articles for inclusion in the Division 28 Newsletter, should send them to:

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