

# ISGIDAR

INTERNATIONAL  
STUDY  
GROUP  
INVESTIGATING  
DRUGS  
AS  
REINFORCERS

NEWS LETTER

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### ABOUT ISGIDAR NEWSLETTER

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## ANN ARBOR MEETING OF WORKING COMMITTEE

The Working Committee met in Ann Arbor on Friday, November 22, 1974, at the Parke-Davis Research Laboratories. Working Committee members who participated were: R. L. Balster, A. T. Dren, C. A. Gill, S. R. Goldberg, R. Griffiths, C. Johanson, J. L. Malis, D. A. McCarthy, C. Mitchell, D. Römer, C. R. Schuster, R. Stretch, A. H. Tang, J. H. Woods and T. Yanagita. A. Davidson acted for L. Cook. Four laboratories were represented on the Committee for the first time; namely, Smith Kline & French Laboratories by C. A. Gill, Riker Laboratories by C. Mitchell, Upjohn Company by A. H. Tang and the University of Ottawa by R. Stretch.

Maurice Seevers was a distinguished guest and contributor. S. E. Harrigan and Gail Winger were other ISGIDAR members attending.

Since several laboratories were represented for the first time on the Working Committee, the history and objectives of ISGIDAR were reviewed. There was a brief discussion defining the role of reinforcing properties of drugs within the spectrum of causes leading to selection of specific drugs for purposes of abuse.

The main purpose of the meeting was to review all summary reports on drug substitution studies that had been submitted to the data pool and distributed to the members of the Working Committee prior to the meeting. In addition, new data sheets were made available to the Committee by some of its members who had submitted these too late for inclusion in the data pool binder.

There was some discussion about the final data pool reporting form. While there were minor criticisms of the form, the consensus was that, with appropriate use of footnotes and comments, all really germane information could be communicated between cooperating laboratories. Roughly, forty studies were reported. Several laboratories had studied the same drugs substituted for the same baseline drugs, using experimental designs that were in most respects similar. In such cases, the degree of agreement between laboratories

was remarkably good. Perhaps even more encouraging, while differing experimental designs yield different values in terms of reinforcing rates, the conclusions drawn from the data regarding the presence or absence of properties which engender self-administration are in excellent agreement. However, we need more data on commonly-used drugs having central actions but which have not become items of illicit commerce for purposes of abuse.

It was decided that, at least for the present, distribution of the total packet of information gathered in the data pool would be restricted to participants in the ISGIDAR Working Committee. It was agreed upon by all parties in the Committee that no one would publish or cite data from laboratories other than their own without the express permission of the investigator who obtained the data. Our hope is to eventually publish all the results as a joint effort. It was recognized that other members of ISGIDAR, government agencies and individual investigators might have a legitimate need for information generated by the cooperating laboratories represented on the Working Committee. To meet their need for sources of information, a listing of drugs reported by the various laboratories is to be distributed with the ISGIDAR News Letter. Interested parties would then know of the existence of such information and could obtain it by requesting it from the laboratory where the information was generated. (A listing of all data pool reports, including those sent to D. A. McCarthy since the Ann Arbor meeting, is appended to this News Letter.)

Nearly all participants indicated that they were in possession of additional data which would lend itself to reporting to the data pool. It was felt that after the contributing laboratories had compiled and sent in all of their data, an attempt could be made to analyze these in terms of the influence of differing variables in experimental design. Just who will take on this problem has not yet been decided.

Those laboratories that had completed the studies agreed upon at the Mexico City meeting presented their results on the data pool reporting forms. Those who had not yet finished the work indicated that it was in progress or would be completed soon.

It was decided that a satellite session on self-administration would be sponsored by ISGIDAR at the time of the CPPD meetings in May. Schuster and McCarthy agreed to arrange. (Announcement of this meeting appears below.)

Dr. Römer discussed the planned workshop in Basle on July 28 and 29. (Further information appears below.)

Chris Johanson and Robert Balster discussed their experiences with the self-administration of psychomotor stimulants by monkeys in an unlimited access situation. Their discussions also included observations made using cats as well. Several other participants who have had experience with unlimited access also contributed to the discussions. General agreement was reached by the Work-

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Washington Meeting - May 18, 1975

ISGIDAR is planning an open meeting of all persons interested in experimental drug self-administration by laboratory animals. This meeting will be a satellite session to the NRC/NAS Committee on Problems of Drug Dependence and will be held at the National Academy of Science; 2101 Constitution Avenue; Washington, D.C.; on Sunday, May 18, 1975. A registration fee of \$10.00 will be charged. Papers will be read from 10:00 a.m. until 1:00 p.m. A luncheon will be provided at the Academy building for all persons who have preregistered prior to May 15. Luncheon can not be guaranteed for those who have not registered and paid their fee prior to May 15, although every reasonable attempt will be made to accommodate late registrants and those who register at the Academy on the morning of the session.

Papers will be read from 1:45 p.m. until we run out of participants or until 4:00 p.m., whichever occurs first. Those who wish to present papers should send an abstract and an estimate of required time to present it to Dr. C. R. Schuster (address on cover of News Letter). If the paper is accepted, the senior author will be so informed in writing by April 15 and the amount of time allowed for the presentation will be specified. Authors may or may not be informed of the hour that their paper is scheduled, but, in general, papers will be presented in the order the abstracts are accepted. Authors are requested to keep their presentations as brief as possible and still do justice to the work being reported.

For those who wish to have their papers appear as addenda to the Annual Report of the CPDD, this should be so indicated when the abstract is submitted. ISGIDAR can not guarantee that the papers will be accepted for publication in the Annual Report, but we can guarantee that they will not be accepted unless a complete manuscript is presented to the satellite session chairman, Dr. C. R. Schuster, before or at the time the paper is read.

To preregister, please mail your check for \$10.00, payable to ISGIDAR, to Dr. D. A. McCarthy (address on cover of News Letter) before May 10.

Basle Workshop - Basle, Switzerland, July 28-29, 1975

A call for ISGIDAR members who wished to attend the workshop in Basle went out with the last News Letter. A number of persons have responded to Dr. Römer. A few of these have indicated topics that they wished to have discussed, but there seems to be too few who are anxious to prepare discussions or topics of interest. A listing has been provided by Dr. Römer of those who wish to participate. This listing appears below. If there are other ISGIDAR members who would like to attend the conference and who, for one reason or another, have not so indicated, they should direct their inquiries to Dr. D. Römer; Biological and Medical Research; Sandoz, Ltd.; Basle, Switzerland.

It would be most helpful to Dr. Römer if those persons who have indicated a willingness to participate in the workshop would let him know as soon as possible what subject they would prefer to discuss. An estimate of anticipated time required for formal presentation of data would also be helpful.

It is hoped that Working Committee members attending the Basle meeting will bring their data-pool binder. If there are new reports or updated reports to be added to the data-pool binder, these should be sent to Dr. McCarthy for replication and delivery to Basle prior to the meeting. Only reports received between the Washington meeting and July 1, 1975, can be replicated and delivered to Basle in time for the workshop. If new data are added to the data pool by participants at the Basle workshop, it would be helpful if the person providing such data would be prepared to discuss his own data in terms of similar data reported to the data pool by other contributors. It is assumed that Dr. Römer will allow some time for discussion of newly acquired data.

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ing Committee that the next kind of data that should be gathered for the data pool would be observations on 23-24 hour unlimited access. This will require development of a reporting form that would be suitable for expressing, in a concise way, most of the inter-laboratory procedural differences. At the present time, there is no agreement as to what, if any, procedure(s) are going to generate the most reproducible data. Bob Schuster and Chris Johanson agreed to try to work with others having such data and to develop a reporting form comparable to the one worked out by McCarthy, Woods and Johanson for reporting data on drug substitution studies. It is becoming obvious that meetings such as this one are helping the participants to develop more effective experimental designs and ways to express results of substitution studies. A similar benefit is expected by consideration of unlimited access data. It was hoped that some time could be allowed at the Washington meeting for presentation of a suggested reporting form for continuous access studies and perhaps to set up a list of recommended limits on procedural variables. This is recognized as a difficult task in view of (a) the differences in resources available in different laboratories and (b) the differences between laboratories with respect to research objectives. However, good suggestions supported by sound experimental data are most apt to be adopted by new people entering this field of investigation and by those who are anxious to have a common basis for minimizing inter-laboratory discrepancies. It is suggested that persons on the Working Committee who have an interest in participating in the defining of "optimum" procedural limits for unlimited access tests and the design of an acceptable reporting form for such data contact C. R. Schuster and/or bring your data and suggestions to the Washington meeting.

List of ISGIDAR-members who plan  
to attend the Basle-Workshop July 28-29, 1975

Name	Type of hotel reservation	Participant want to discuss	Participant would like to hear discussion about
Dr. Cook	?	-	How does one choose the correct dose of a compound to be used in a substitution procedure in addicted, drug dependent animal
Dr. Balster	?	-	-
Dr. Chruisciel or one of his associates	?	-	-
Dr. Götestam	single	-	-
Dr. Andersson	single	-	-
Prof. Hoffmeister	single	-	-
Dr. Gogerty	single	-	-
Dr. Mc Carthy	double	Narcotic Antagonists and Drug Interactions	Progressive ratio techniques in self-administration studies
Dr. Meisch	?	-	-
Prof. Schuster Dr. Johanson	double	-	-
Prof. Wilson	single / double	-	Methodology for determining relative abuse potential of psychoactive substances
Dr. Woods	single	narcotics and narcotic antagonists: Rapid assessment techniques	Oral and intragastral drug Self-administration

Dr. Uyeno	single	-	-
Dr. Yanagity	?	-	-

Listing of Completed Substitution Work Sheets

All reports from the various cooperating laboratories represented on the ISGIDAR Working Committee have been tabulated. Working Committee members should receive copies of all reports not distributed to them prior to or at the Ann Arbor meeting. Please check the appended table of contents against reports in your data-pool binder. If you are missing any reports, please request copies from Dr. McCarthy. They will be mailed to you as soon as possible after receipt of your request.

ISGIDAR members who are interested in specific information about a particular compound in a given substitution test should direct their letters of request to the individual who did the work. It would be helpful to those from whom data is requested if you noted the use to which you intend to put the data.

DATA POOL - TABLE OF CONTENTS

<u>Test Drug</u>	<u>Base-Line Drug</u>	<u>Investigator</u>	<u>Location</u>
Heroin Hydrochloride	Cocaine HCl	Balster & Schuster	University of Chicago
Morphine Sulfate	Codeine H <sub>3</sub> PO <sub>4</sub>	Balster & Harris	Medical College of Virginia
Morphine	Pentazocine	Yanagita	CIEA
Morphine Sulfate	Cocaine HCl	Balster & Schuster	University of Chicago
Morphine Sulfate	Cocaine HCl	Balster & Harris	Medical College of Virginia
Morphine Sulfate	Methamphetamine HCl	Harrigan & McCarthy	Parke, Davis & Company
Morphine	SPA	Yanagita	CIEA
Quinine in Morphine SO <sub>4</sub>	Morphine (H <sub>2</sub> SO <sub>4</sub> ) 1/2	Harrigan & McCarthy	Parke, Davis & Company
Codeine Phosphate	---	Downs & Woods	University of Michigan
Codeine Phosphate	Cocaine HCl	Balster & Schuster	University of Chicago
Codeine	SPA	Yanagita	CIEA
Dextromethorphen	SPA	Yanagita	CIEA
Oxymorphone Hydrochloride	Cocaine HCl or Codeine PO <sub>4</sub>	Balster & Harris	Medical College of Virginia
Thebaine	SPA	Yanagita	CIEA
Methadone	SPA	Yanagita	CIEA
Meperidine (Pethidine)	SPA	Yanagita	CIEA
Etonitazene HCl	Methamphetamine HCl	Harrigan & McCarthy	Parke, Davis & Company



<u>Test Drug</u>	<u>Base-Line Drug</u>	<u>Investigator</u>	<u>Location</u>
Pentazocine	SPA	Yanagita	CIEA
Dextropropoxyphene HCl	Cocaine HCl	Balster & Schuster	University of Chicago
Nalorphine HCl	Thiamylal Na	Harrigan & McCarthy	Parke, Davis & Company
Nalorphine NCl	Methamphetamine HCl	Harrigan & McCarthy	Parke, Davis & Company
Pentobarbital	Codeine	Hoffmeister	Bayer, AG
Pentobarbital	Pentazocine	Yanagita	CIEA
Pentobarbital Na	Pentobarbital Na	Dren & Jochimsen	Abbott Laboratories
Pentobarbital Na - ETOH	Pentobarbital Na - saline	Gill & Holz	Smith Kline & French
Pentobarbital Na	Thiamylal Na	Harrigan & McCarthy	Parke, Davis & Company
Pentobarbital Na	Methamphetamine HCl	Harrigan & McCarthy	Parke, Davis & Company
Pentobarbital	SPA	Yanagita	CIEA
Thiopental Na	Pentobarbital Na	Dren & Jochimsen	Abbott Laboratories
Thiamylal Na	Thiamylal Na	Harrigan & McCarthy	Parke, Davis & Company
Ethyl Alcohol	Pentobarbital Na	Gill and Holz	Smith Kline & French
Phencyclidine HCl	Cocaine HCl	Balster, Johanson & Schuster	University of Chicago
Chlordiazepoxide HCl	Pentobarbital Na	Gill & Holz	Smith Kline & French
Clorazepate •K <sub>2</sub>	Pentobarbital Na	Dren & Jochimsen	Abbott Laboratories

<u>Test Drug</u>	<u>Base-Line Drug</u>	<u>Investigator</u>	<u>Location</u>
Diazepam	Pentobarbital Na	Dren & Jochimsen	Abbott Laboratories
Flurazepam HCl	Pentobarbital Na	Dren & Jochimsen	Abbott Laboratories
Chlorpromazine	Codeine	Hoffmeister	Bayer, AG
Perphenazine	Pentobarbital & Cocaine	Johanson	University of Chicago
Imipramine	Codeine	Hoffmeister	Bayer, AG
Imipramine	SPA	Yanagita	CIEA
Trazodone	Methamphetamine HCl	Harrigan & McCarthy	Parke, Davis & Company
Cocaine HCl		Downs and Woods	University of Michigan
Cocaine HCl		Woods	University of Michigan
Cocaine HCl	Cocaine HCl	Dren & Jochimsen	Abbott Laboratories
Cocaine	SPA	Yanagita	CIEA
Amphetamine	SPA	Yanagita	CIEA
<u>d</u> -Amphetamine (SO <sub>4</sub> ) 1/2	Cocaine	Woods	University of Michigan
<u>d</u> -Amphetamine (SO <sub>4</sub> ) 1/2	Cocaine	Griffiths, Winger & Brady	Johns Hopkins
<u>d</u> -Amphetamine (SO <sub>4</sub> ) 1/2	Cocaine HCl	Balster & Schuster	University of Chicago
<u>l</u> -Amphetamine (SO <sub>4</sub> ) 1/2	Cocaine HCl	Balster & Schuster	University of Chicago
Methamphetamine HCl	Cocaine HCl	Balster & Schuster	University of Chicago

<u>Test Drug</u>	<u>Base-Line Drug</u>	<u>Investigator</u>	<u>Location</u>
d-Methamphetamine HCl	Cocaine	Woods	University of Michigan
d-Methamphetamine HCl	Cocaine	Dren & Jochimsen	Abbott Laboratories
Methamphetamine	SPA	Yanagita	CIEA
<u>d</u> l-ethylamphetamine HCl	Cocaine	Woods	University of Michigan
Ephedrine Sulfate	Cocaine	Woods	University of Michigan
Pipradrol	SPA	Yanagita	CIEA
Methylphenidate	SPA	Yanagita	CIEA
Methylphenidate HCl	Cocaine	Dren & Jochimsen	Abbott Laboratories
Phenmetrazine	SPA	Yanagita	CIEA
Fenfluramine HCl	Cocaine • HCl	Griffiths <u>et al.</u>	Johns Hopkins
Phentermine HCl	Cocaine • HCl	Griffiths <u>et al.</u>	Johns Hopkins
Pemoline	Cocaine HCl	Dren & Jochimsen	Abbott Laboratories
Diethylpropion HCl	Cocaine HCl	Johanson & Schuster	University of Chicago
Chlorphentermin	SPA	Yanagita	CIEA
Caffeine	SPA	Yanagita	CIEA
Nicotine Bitartrate	Morphine HCl	Harrigan & McCarthy	Parke, Davis & Company
Nicotine Bitartrate	Thiamylal Na	Harrigan & McCarthy	Parke, Davis & Company
Nicotine Bitartrate	Methamphetamine HCl	Harrigan & McCarthy	Parke, Davis & Company

<u>Test Drug</u>	<u>Base-Line Drug</u>	<u>Investigator</u>	<u>Location</u>
Nicotine	SPA	Yanagita	CIEA
Physostigmine Salicylate	Morphine H <sub>2</sub> SO <sub>4</sub>	Hill & Romer	Sandoz Ltd.
Pilocarpine	Methamphetamine HCl	Harrigan & McCarthy	Parke, Davis & Company
Arecoline HBr	Methamphetamine HCl	Harrigan & McCarthy	Parke, Davis & Company
Ditran (Ditran)	Codeine	Hoffmeister	Bayer, AG
LSD	Codeine	Hoffmeister	Bayer, AG
$\Delta^9$ THC	SPA	Yanagita	CIEA
STP (DOM)	SPA	Yanagita	CIEA
Propranolol	Codeine	Hoffmeister	Bayer, AG
Propranolol HCl	Thiamylal Na	Harrigan & McCarthy	Parke, Davis & Company
Propranolol HCl	Methamphetamine HCl	Harrigan & McCarthy	Parke, Davis & Company
Sodium Salicylate	Cocaine HCl	Balster & Schuster	University of Chicago