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# TOX TALK

This newsletter is the official publication of the Society of Forensic Toxicologists, Inc. Printing and distribution costs are supported as part of the dues paid by members of the organization. Subscriptions are available to non-members at an annual cost of \$5 per year. Address inquiries to J. Bidanset, Newsletter Editor, Dept. of Pharmacology, St. John's University, Jamaica, New York 11439.

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INTERPRETATION -

-- IDENTIFICATION <

## EDITORIAL

Is the Society taking what you, the membership, feel is the appropriate course to best meet your needs as Forensic Toxicologist? Who decides the direction that the Society should take? The answer to both of the above questions is that the Society should be persuing goals that are important to you, the membership and that this can be accomplished by better "using" members of the executive board. The nominating committees over the past few years have made every effort to suggest for office holders competent members, who are geographically distributed in such a way that no member is far from a representative of the execu-Your input is essential and vital if our organization (the only organization to serve exclusively the needs of the forensic toxicologist) is to survive and to prosper. How do you wnat your dues dollars spent? What programs do you feel the Society should be sponsoring? What do you really want to support?

Some members claimed that they wanted a proficiency testing program. We will hear during the course of the Williamsburg meeting that even those who paid to participate fail to respond in a timely way, if at all. If the Society and its programs are important then they deserve to be a "Priority item". I realize that the recent publication of results by the AAFS proficiency program certainly have caused concern and apprehension about taking part in proficiency programs, but safeguards concerning anonymity and private distribution of results to participants only, can be built into the program.

Another recent indication of the need for improved communication is the SOFT response to the workshop program. Only one SOFT member attended the two workshops presented (one at New Orleans and one in New York at St. John's University). If the concept of workshops, or the subject covered, or the site chosen are not satisfactory, then sound off through your local executive board member or directly to a member of the workshop committee. (Joe Balkon, Len Bednarczyk, Jesse Bidanset)

One of the strengths of our Society is in its responsiveness to the membership. Help provide direction, then support your Society's efforts from TOXTULK Oct 1979 in that regard.

OUR LOSS

With deepest regrets, the Society announces the recent death of Elmer After a nember of heart attacks during the past few years, our friend and colleague succumbed to a fatal attack. Everyone who knew Elmer will remember him as a good friend and a fine gentlemen. The Society has lost a voice which served as a constant reminder of our original goals and objectives. Flowers and a card were sent by the Society expressing the entire group's sympathy. Each member's name was entered on the card rather than the name of the organization, so that perhaps his family could better appreciate the numbers of friends he had and the sympathy expressed seemed more personal that way.

## MINUTES OF THE EXECUTIVE BOARD

SOCIETY OF FORENSIC TOXICOLOGISTS - BOARD OF DIRECTORS MEETING

JULY 20, 1979 - LATHAM, NEW YORK

ATTENDEES: President - Thomas A. Rejent Vice President - Yale H. Caplan Treasurer - Joseph A. Balkon

Members of the Board - Everett T. Solomons

Jesse Bidanset (ex-officio)

The meeting was called to order by President Rejent at 9:00 A. M. and an agenda was presented. Due to the absence of the secretary, Everett Solomons was asked to record the minutes.

Agenda topics were discussed as follows:

- (1) S.O.F.T. Logo:
  A preliminary artists conception was presented by Jesse Bidansett.
  After discussion it was decided that this prototype would be resubmitted to a professional artist by Yale Caplan and to another by Jesse Bidanset The two final conceptions will be presented to the membership for final selection at the Fall meeting.
- (2) JOURNAL OF ANALYTICAL TOXICOLOGY PUBLICATION:

  Joe Balkon reported that the response to the request for papers from the membership has been excellent. Reviewing of the papers is nearing completion and on schedule. It should be of special interest to the membership that free copies of this publication will be presented to all attending the Fall meeting.
- (3) TAX EXEMPT STATUS OF S.O.F.T.:
  No report.

in process.

(4) MEMBERSHIP:

Jesse Bidanset offered his apologies for recent delays in application processing. However, this should soon be remedied. Seven applications have been completely reviewed and four are

After some discussion, it was concluded that after the logo has been determined and a brochure designed, a membership drive would be appropriate.

(5) MEETINGS - 1979:
President Rejent commented that arrangements for the Fall meeting in Williamsburg are on schedule. Several comments were offered on the need for maintaining informality of S.O.F.T. meetings. Suggestion for accomplishing this included:

- a. Providing a free time for members to air problems
- b. Poster presentations
- c. Roundtable discussions

Future meeting sites:

1980 - Toronto

1981 - Chicago

1982 - Orlando area

## (6) FINANCIAL REPORT:

Joe Balkon reported that only 20% of the membership has paid their dues for the fiscal year (July 1, 1979 - June 30, 1980). All members who have not paid are encouraged to do so immediately.

It was reiterated that those persons who have submitted an application and dues, but processing of the application was not completed during the past fiscal year, these dues will be applied to membership for the next fiscal year.

The financial status of the organization is sound with \$1,400.00 in the general budget and \$1,500.00 in the Grant (education) budget.

## (7) EDUCATION:

It was generally agreed that President Rejent should be applauded for successfully obtaining a grant of \$1,500.00 from Hoffman LaRoche to be used as financial assistance to a qualified Toxicology student. Tom is continuing his efforts to secure similar grants from other companies.

Policies for student selection and methods of distribution and use of grant money were discussed. Yale Caplan stated that the major factors to be considered are the student, the project, the advisor, and the institution.

## (8) NOMINATING COMMITTEE: No report.

President Rejent pointed out that the Nominating Committee has indicated that any suggestions for nominees will be welcomed and given full consideration.

## (9) RECERTIFICATION AND CERTIFICATION:

Yale Caplan reported that recent information from President Blanke of the ABFT indicates that only general principles have been established regarding recertification at this date. Some of these principles include:

1. Evidence from the Diplomate of Continued Forensic Toxicology involvement.

2. A simple system of monitoring diplomate status which would require a minimum of cost - probably not a point system.

It was generally agreed by those present that the time for providing guidelines for recertification is fast approaching.

Yale Caplan also noted that the ABFT has accepted the mandate for developing alternate qualification pathways for those not having the Ph.D. but who perform in a broadly based toxicology role. (This would not include persons of limited function, e.g., a blood alcohol analyst only).

The Executive Committee further noted that Board certified toxicologists are, in general, out of contact with the proceedings of the ABFT regarding the most important recent issues. It is therefore urged that a mechanism for update of the activities of the Board be established within a reasonable period of time.

Also mentioned was the fact that in 1980 three positions are to be vacated on the American Board of Forensic Toxicology. S.O.F.T. inquiry concerning the possibility of providing a nominee(s) for the positions resulted in an indication that input from the three major organizations (SOFT, CAT and AAFS) would be given full consideration.

## (10) PROFICIENCY TESTING:

A number of problems bearing on the subject of proficiency testing were discussed including:

- a. quality of test specimens and effects of preparation, shipping and handling
- b. cost of preparation, shipping and handling
- c. provisions for optional anonymity
- d. source of funds to support the program

The consensus was that Len Bednarezyk should be thanked for his efforts and encouraged to continue the proficiency testing program. It was also considered that full consideration should be given to financial support of the program by S.O.F.T.

President Rejent suggested one mailing of a simple test specimen to all of the membership with a request for expeditious feedback of the results.

A report, in general terms, regarding statistics resulting from the data accumulated should be presented at the next meeting. Anonymity would be preserved.

## (11) WORKSHOPS:

Joe Balkon and Jesse Bidanset reported on S.O.F.T. sponsored workshops on differential UV spectroscopy presented in New Orleans and again at St. John's University. Attendance was poor in New Orleans and good at St. John's. The possibility of a workshop(s) being presented at regular S.O.F.T. scientific meetings was suggested by Yale Caplan and found generally acceptable.

Jesse Bidanset petitioned the Board to provide some reimbursement to Joe Balkon for travel expenses incurred on trip to New Orleans for the S.O.F.T. sponsored workshop. This was unanimously agreed upon.

The members of the Board also unanimously agreed that travel expenses incurred to attend this S.O.F.T. Director's meeting would be absorbed by the organization.

Everett T. Solomons, Acting Secretary

800.00

700.00

## REPORT OF THE NOMINATING COMMITTEE

The following slate of officers in the Society of Forensic Toxicologists is offered in nomination by the Nominating Committee:

> President Vice-President Secretary

Secretary
Executive Board

1. Awards

Balance (June 30, 1980)

D.

Leonard Bednarczyk

Yale Caplan

Robert Forney, Jr. Joseph Monteforte Jim Valentour

## PROPOSED 1979-80 BUDGET

I.	Gene	ral Operating Budget	
	A.		1432.89
	В.		_ ,
		1. Membership dues 1560	
		2. Application Fees 50	
		• •	
		3. Meeting Income 4. Miscellaneous	
	_	Total 1610	70 to 00
	C.	Total Assets	3042.89
	D.	Disbursements Anticipated	
		1. Hospitality Suite 250	
		2. Newsletter 250	
		<ul><li>3. Workshop Committee 400</li><li>4. Exec. Brd. Expenses 800</li></ul>	
		4. Exec. Brd. Expenses 800	
		<ul><li>5. Postage 50</li><li>6. Special Issue Project130</li></ul>	
		6. Special Issue Project100	
		7. Meeting Expenses	
		8. Miscellaneous Expenses100	
		Total Anticipated	
		Disbursement 1950	
	100		1000 90
	E. Anticipated Balance 6/30/80		1092.89
II.			7500.00
	A.	Balance as of 7/1/79	1500.00
	В.	Income	None anticipated
	C.	Disbursements	

## MEMBERSHIP COMMITTEE REPORT

The membership committee has considered the applications of perspective new members during the past year. After careful evaluation of the education and professional experience of each applicant, the following recommendations have been made by the committee:

For full membership:

Robert C. Bost, Ph.D. Cuyohoga County Coroner's Office Cleveland. Chio

Ms. Mary DeMayo Coram, New York

Timothy Eastly Allison Park, Pa.

Joan C. Harrill Atlanta, Ga.

Janos P. Kertesz Toronto, Canada

Michael Krajewski Buffalo, New York

W. Christopher Long Hicksville, New York Michael McGee Richmond, Va.

Harold Warren Peel Ottawa, Canada

John D. Snyder East Lansing, Michigan

Joan Vogel White Plains, New York

Bernard Shi-Ping Yen Toronto, Canada

## For Associate Membership:

Betty P.T. Cheng, Ph.D. Buffalo, New York

Mark W. Commiskey
Dade County Medical Examiner
Miami, Florida

Arthur H.K. Djang, M.D. Jamestown, New York

Donna L. Duffy Hialeah, Florida

James P. Kenney Hollis, New York Steven J. Krebs Jamaica Estates, New York

Albert Maury Phillips Memphis, Tenn.

Johann C. F. Schulz Staten Island, New York

Ivin Silver Westbury, New York

Tully Speaker, Ph.D. Philadelphia, Pa.

Gregory M. Torre Floral Park, New York

For Student Membership:

J. Douglas Bricker Pittsburgh, Pa.

The membership committee is considering the suggestion that we publish an up-to-date membership list of SOFT. Since Joe Balkon appears to have the most current information because of dues notices, please notify him in the event of a recent change of address. Soon after the first of the year, a membership roster will be sent out by the Society.

#### PROPOSED BYLAW AMEndment

## Section 3. Termination of Membership

- A. Membership in SOFT may be terminated by written notification to the Secretary.
- B. Any member who fails to remit his dues after a second written notice from the Treasurer shall at the end of the following fiscal year be dropped from membership.
- C. (The Board of Directors may revoke the membership of any member who has failed to attend three (3) consecutive annual meetings of SOFT.)

A member shall be removed from SOFT if he fails to attend the annual meeting for four consecutive years. Exemption to this requirement may be granted by the Board of Directors upon receipt of a written request from the member.

D. A member may be removed from SOFT for unethical conduct, conduct detrimental to the profession of forensic toxicology or conduct detrimental to the welfare of SOFT. Any such charges must be presented in writing to the President who, with the approval of Board of Directors, shall appoint an ad hoc ethics committee to investigate the charges.

Termination of membership for unethical conduct must be approved by three-fourths of the voting members present at the annual business meeting.

(E. Termination of membership under C. or D. above must be approved by a three-fourths vote of the voting members present at the annual business meeting.)

Brackets denote meterial deleted. Underlining denotes material added.

#### REGISTRY OF HUMAN TOXICOLOGY

Members of the American Academy of Forensic Sciences Registry Committee are soliciting toxicology case data for inclusion in this year's Registry report. We would welcome your contributions. Of particular interest are analytical data from drug induced or drug related fatalities involving new or infrequently reported toxic agents.

If you do have data that you are willing to submit, obtain copies of the entry form from Alphonse Poklis, Ph.D., St. Louis University Medical Center, School of Medicine, 1402 S. Grand Blvd., St. Louis, Mo., 63104. Complete the form and return to Mr. Michael McGee, Commonwealth of Virginia, Division of Consolidated Laboratory Services, Bureau of Forensic Sciences, P.O. Box 999, Richmond, Va. 23208

All contributors will receive a copy of the 1979 Registry report. Any AAFS member can request a computer search of all Registry data on a particular toxic agent by contacting Mr. McGee.

\* Editor's Comment - The data that results from any search is only as complete as the information which has been submitted by Forensic Toxicology facilities. Take the time to contribute so that the searches will truly represent the total available information.

## NEW DIPLOMATES IN ABFT

The American Board of Forensic Toxicology, Inc. has announced that the following individuals have been certified as diplomates:

Thorne J. Butler, DABFT Las Vagas, Nevada

D. Russell Lowe, DABFT San Diego, California

Roy E. Altman, DABFT Tucker, Georgia

Barry W. Corbett, DABFT Carrboro, North Carolina

Morton Berk, DABFT White Plains, New York

Carolyn A. Smart, DABFT Toronto, Canada

James L. Small, DABFT Mobile, Alabama

Elmer L. Gordon, DABFT Rochester, New York

## RIA FOR THC

A letter received from S. Joseph Mule, Fh.D., Assistant Commissioner, Director of Research for The State fo New York, Division of Substance Abuse Services, Office of Alcoholism and Substance Abuse stated the following:

I have just had the opportunity to evaluate a Delta-9 THC radioimmuno-assay direct for blood.

The kits were provided to me by Dr. Stanley J. Gross of UCLA.

In essence, the assay was basically quite simple and could be performed by the laboratory technician. It was direct for whole blood, was sensitive to a level of 5 ng/ml and appeared specific for Delta-9 THC. I could not thoroughly evaluate this fact since I did not have available the cannabinoid metabolites; however, a paper in the <u>Journal of Analytical Toxicology</u>, Vol. 2, pp. 98-100 (1978) by Dr. Gross concerning the serum assay for Delta-9 THC does indicate specificity.

In my opinion, the development of this assay represents the first truly easy and effective menas for detecting marijuana usage in the population. It should be widely received by all enalytical laboratories concerned with the detection of illicit substance abuse. It would be of great advantage to indicate the availability of this assay in the SOFT Newsletter.

The assay kits, as well as any further details, can be obtained by contacting the Immunoalysis Corporation, 218 North Boyle Avenue, Los Angeles, California 90033.

Anecodotally, tests in California indicate that in 25% of motor vehicle violations, marijuana was implicated.

#### NEAFS ANNUAL MEETING

The fifth Annual meeting of the Northeastern Association of Forensic Scientists will take place in Albany, New York, on Friday, and Saturday, October 26 and 27, 1979.

Information regarding this meeting or the Association may be obtained by writing Mark B. Lewis, c/o Scientific Laboratory, State Campus, Building #22, Albany, New York 12226.

## ANOTHER SOFT LOCAL MEETING

In the spring, the Forensic Toxicology sections of Alabama and Georgia held a SOFT sponsored interlaboratory meeting in Auburn. The meeting was chaired by Everett Solomons, Horton McCurdy and Larry Slighton. The following is the agenda and where available abstracts of the presentations

I. General Topic: Heavy Metals

Everett T. Solomons - Moderator

Application of the Scanning Electron Microscope - x-ray Analyzer for Rapid Detection and Confirmation of Arsenic in a Homicidal Poisoning William H. Wall

The rapid identification of arsenic trioxide crystals in a bottle of beer submitted with other evidence associated with a homicidal arsenic poisoning was performed using a Cambridge Stereoscan 150 and EDAX 9100.

The SEM-EDAX application has been found to be very useful for the rapid screening of solid substances submitted with suspected poisoning cases.

The potential of further applications to forensic biological extracts was also discussed.

Evaluation of a Solvent Extraction - Flameless AA Procedure for Analysis of Arsenic Everett T. Solomon

A previously reported procedure (A.W. Fitchett, F.H. Daughtrey, Jr., and Paul Mushak, Analyticall Chimica Acta, 79 93-99, 1975) for the analysis of arsenic in the urine was examined and extended to the anlaysis of hair, liver, kidney, and brain. For evaluation, urine and hair were spiked with arsenic, whereas the remaining tissues were taken from a previously analyzed (wet oxidation-silver diethyldithio-carbamate technique case. The AA procedure was found to be rapid, more than adequately sensitive for forensic analyses, and produced results comparable to that of the wet-ox-colorimetric method.

Recent Toxicology Experiences Related to Lead Poisoning from "Bad" Moonshine Susan Browner II. General Topic: Immunoassays

Ernest L. Slighton - Moderator

Application of the Roche Diagnostics Amphetamine and Morphine Abuscreen TM Kits to Analysis of Cross-Reacting Substances

Afaf Absood

The application of the Roche Diagnostics Abuscreen TM Kits to cross-reacting substances was discussed. The amphetamine kit is significantly more sensitive for amphetamine, methylenedioxyamphetamine, and paramethoxyamphetamine than for methamphetamine, phenylpropanolamine and phenethylamine. The morphine kit has been used for the quantitation of morphine, codeine, hydromorphone, hydrocodeine and levorphanol. The assay is significatly more sensitive to the first two opiate derivatives than the last three. However, the sensitivity was quite sufficient for all five.

Phencylidine analysis via RIA using the Roche Diagnostics kit was briefly studied. A preliminary comparison of gas chromatographic results to RIA results has been made. Agreement was acceptable for fresh whole blood. However, wide variations occurred among blood specimens with varying degrees of putrefaction. Studies indicate this problem to be the result of non-specific binding.

Evaluation of the Roche Diagnostics Phencyclidine Aubuscreen Kit Larry J. Lewellen and Everett T. Solomons presented by Everett T. Solomons

Application of a New Benzodiazepine FMIT Assay to Analysis of Specimen other than Serum or Urine Frnest L. Slighton and Joan Harrill

- III. Miscellaneous Topics Related to Forensic Toxicology Drug Analysis
  - H. Horon McCurdy Moderator

A Rapid Screening Method for Acid and Neutral Drugs in Blood Joan Harrill

A rapid screening procedure for barbiturates and neutral drugs was presented using jet tubes and only one thin layer plate and solvent system. Drugs readily detected include barbiturates, diazepam, nordiazepam, oxazepam, chlordiazepoxide, methaqualone, gluthimide, meprobamate and placidyl.

Evaluation of a Fast Spot Test for PCP in Urine Emelina G. Saker

A presumptive color test for PCP in urine was developed using tetrabromophenolphialein ethyl ester. Levels of 0.1 mg/dl may be readily detected.

In specificity studies, the following substances were also found to give a color (although the color varies in most instances according to the drug detected): amitriptyline, chloroquine, propoxyphene, diphenhydramine, and some phenothiazines. No false negatives have been observed (urine further

checked by gas chromatography and/or immunoassay). Common drugs found not to give a color include nicotine, cocaine, amphetamine, and opiates.

Diazepam and Nordiazepam Analysis by NPD-GC after Derivatization H. Horton McCurdy

A rapid and reliable procedure was presented for the quantitation of diazepam and its physiologically active metabolites, desmethyldiazepam, by use of the nitrogenphosphorous detector (NPD) on the CV-1 column. The procedure involves a short derivatization step (5 min) of desmethyldiazepam using tetrabutylammonium hydrogen sulfate (TBAHS), 0.025M, in trimtehylanilinium hydroxide (TMAH), 0.02M and 1-iodopropane to yield the N-propyl derivative. This derivative has a NPD response 1.2 times that of diazepam and gives sharp, symmetrical peaks on the OV-1 column. The internal standard was prazepam.

Twenty cases were presented involving diazepam and nordiazepam of which thirteen of these were DUl cases. The DUl cases renged from 0.1 to 3.6 mcg/ml for diazepam and 0.1 to 1.9 mcg/ml for nordiazepam. Only four of the thirteen DUl cases were positive for significant alcohol. The seven other cases were fatality cases from a variety of causes from gunshot wounds to fire deaths. The overdose cases represents polydrug findings and none were due solely to diazepam.

Analysis of MDA in Two Death Cases and Ten Abusers: Comparison of RIA and GC Quantitations
Ernest L. Slighton

Recent Cocaine Deaths: Levels and Analysis (Comparison of GC and RIA Results)
H. Horton McCurdy

## GC-TLC WORKSHOP

A 3½ day intermediate level course will be given at St. John's University in Jamaica, New York, from January 7 to January 10, 1980. The workshop is co-sponsored by SCFT and NEAFS (both organizations to share profits). A brochure containing detailed information will be distributed soon.

#### EDUCATIONAL SUPPORT

The Society of Forensic Toxicologists recently announced the establishment of a Grant in Aid stipend for the support of graduate level research in the field of Forensic Toxicology. Information and details regarding this reward may be obtained from: Dr. Vincent Lynch

Department of Pharmacology St. John's University, Jamaica, New York

Please note: If you or a graduate student under your supervision is or will be involved in a graduate level project that deals with an issue in Forensic Toxicology, do find out about the Grant In Aid program.

Society of Forensic Toxicologists, Inc. Dr. J. H. Bidanset, Newsletter Editor Department of Pharmacology St. John's University Jamaica, New York



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