



# TOXTALK

Publication of the Society of Forensic Toxicologists

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## Raymond J. Abernethy

by Robert H. Cravey

Raymond J. Abernethy was born 4 June 1894 in Paso Robles, California. Following graduation from the University of California in Berkeley, he served in the United States Army during World War I. After the war he held several positions in both government and private laboratories, and it was during this period that he was introduced to analytical toxicology. In 1926 the County of Los Angeles encouraged Mr. Abernethy to come south to head the Department of Health Laboratory. Los Angeles was small in population at that time and in addition to his work for the health department, he accepted cases from the Sheriff, the District Attorney, the Coroner, and the Department of Agriculture. Mr. Abernethy tells me that there were a dozen poisons that the toxicologist concerned himself with in those early days. Barbiturates, primarily Veronal® (barbital), had become rather widely used by 1930 and were often found in comatose cases and in Coroner's cases. Coroner's cases often involved heavy metals particularly arsenic. When Mr. Abernethy accepted the position in the Los Angeles laboratory, his instrumentation consisted of a microscope, centrifuge, and a colorimeter. Analytical toxicology was in its infancy and methods, guidelines, and protocol were developed by the analyst as the need arose.

The population of Los Angeles County grew during the 1930's and in 1942 the Coroner set up a toxicology laboratory

in his department which was housed in the Department of Justice. Mr. Abernethy was appointed Head Toxicologist, and he directed the activities of that laboratory until his retirement in January 1963. Retirement, however, was brief. In the 1960's the widespread use of both legal and "street drugs", and the problems created by drug abuse, caused private laboratories to expand clinical chemistry programs to include analytical toxicology, hospital laboratories to develop emergency toxicology programs, and new laboratories to spring up for the purpose of handling pre-employment drug screening, and programs relating to probation and methadone clinics. Mr. Abernethy was in great demand as a consultant, and continued to work in this capacity until June 1979. Although he claims he is officially retired, to this day Mr. Abernethy maintains the greatest interest in his chosen field. He frequently attends local and national meetings and advises those of us who so often seek his experience and expertise.

During his long and distinguished career, he immediately recognized the need for continued education and professional growth, and was a founding member of the American Academy of Forensic Sciences (AAFS), The International Association of Forensic Toxicologists (TIAFT), and the California Association of Toxicologists (CAT). In addition, he has maintained membership and played an active role in many other professional societies including the American Chemical Society, the Forensic Science Society,

# Report from the National Surveys Committee

by *H. Horton McCurdy, Ph.D.*  
*Chairman, National Surveys Committee*

In January 1983, Everett Solomons, president of SOFT, appointed a committee to undertake for the Society a national survey of forensic toxicology laboratories. This survey was directed to the members of the Society and solely for the benefit of the SOFT membership. The president suggested that the committee attempt to improve the scope and goals of the questionnaire from the previous year and, of course, to update the survey.

With these thoughts in mind, Nicholas Hodnett and Horton McCurdy conceived and designed this year's questionnaire. The questionnaire was mailed to some 60 laboratories of which 38 questionnaires representing twenty states were promptly completed and returned for tabulation.

The respondents were composed of 28 governmental laboratories (state, city, and county), 4 hospital laboratories, 3 private laboratories, and 3 university laboratories. More than half of the respondents have a population base of between 1 and 3 million.

## Abernethy continued

and the American Institute of Chemists. He served as the first Secretary of the Toxicology Section of the AAFS (1956-1958) and read papers before that group on methods he had developed for alcohol and barbiturate analysis which were later published in the first proceedings of that association. He also served as Secretary of TIAFT from 1966 until 1969.

Although Mr. Abernethy has received recognition for his professional accomplishments from other organizations, I feel he has taken greatest pride in the distinguished Section Award presented to him by the Toxicology Section of the American Academy of Forensic Sciences at the annual meeting in Orlando in 1982. His peers had indeed recognized an illustrious professional career which spanned a period of more than 50 years. This was a career begun at a time when the colorimeter was the standard laboratory instrument and continued until the mass spectrometer and computer became commonplace in the analytical toxicology laboratory.

The typical services offered by the respondents were forensic toxicology (72% of the workload), research (8% of the workload), teaching (4% of the workload), and miscellaneous (16% of the workload). Those who use the services are primarily medical examiners, police agencies, hospitals, and correction facilities.

The laboratories were queried as to extent of their participation in proficiency testing programs. Most of the laboratories (63%) participate in 1-3 different types of proficiency testing programs and 32% were involved in 4 or more programs. A small percentage of respondents (5%) reported no participation of any type.

Nearly 75% of the laboratories surveyed report having at least one Diplomate of the American Board of Forensic Toxicology on their staff.

The extent of instrumentation within the average laboratory of the respondents was composed of an ultraviolet spectrophotometer; fluorometer; immunoassay capabilities (either EMIT or RIA); gas chromatographs with FID, NPD, and ECD detectors; GC/MS; and a HPLC

with UV detectors. Better equipped laboratories also had NMR, emission spectroscopy, atomic absorption spectroscopy, infrared spectroscopy, and CO-oximeter. Less well equipped laboratories did not have HPLC and GC/MS.

The salary and infrastructure within the various organizations were typically divided into a chief toxicologist (salary range, 27K-58K), an assistant chief toxicologist (salary, 20K-47K), senior chemists (usually 4 with salary ranges of 14K-34K), and junior chemists or technicians (typically numbering 3 with salaries ranging 10K-24K). The private laboratories had the highest salaries with hospitals, government, and university laboratories following behind.

The questionnaire asked the laboratories to report their satisfaction or dissatisfaction with the following areas: number of personnel, present salaries, current budget, and the status and quality of their instrumentation. The rating was on a scale of 1-4 with 1 being inadequate, 2 as barely adequate, 3 as adequate, and 4 as quite adequate. The salaries and budget for most laboratories was rated as between barely adequate and adequate. The status and quality of instrumentation was rated a little better, seemingly near adequate for most of the respondents. On the other hand, the number of personnel appears to be a major problem for most of the laboratories surveyed. The rating for this area bordered on just barely adequate. Almost all laboratories surveyed reported some dissatisfaction with one or more of the areas.

Less obvious from the questionnaires was the typical caseload of the respondents. This was perhaps due more to the design of the questionnaire rather than due to the information that was given by the various laboratories. Nevertheless, the impression was that the average number of cases per laboratory was 3800 cases per year with a range of 1400-6200 cases. A further impression was that the average caseload of the toxicologist or chemist was 446 cases per year or 37 cases per month (range of 18 to 56 cases). This coupled with an anticipated 8% increase in caseload for 83/84 fiscal year represents a high, if not inordinately high, caseload. We hope that next year's survey will clarify this situation and determine the correctness of these particular data.

## 1984 SOFT MEETING

October 9-13, 1984

Breckenridge Inn  
St. Louis, MO

Host:  
Dr. Alphonse Poklis

Workshops  
Scientific Papers  
Special Symposium

Plan to Attend!  
Look for first mailing next month

# 1983 Annual Meeting Detroit, Michigan

by Joseph R. Monforte, Ph.D.

The annual meeting was an overwhelming success (of course, I'm biased). Total registration was approximately 120, with 85 registrants for the two workshops (GC Capillary and Lab Management). The Scientific Sessions were exceptional, and my sincere gratitude is extended to all who contributed.

Specific contributions of the membership should also be recognized. These are as follows:

GC Capillary Workshop: Dave Stafford, Bill Anderson, and Buzz Hime

Toxicology and the Media Panel Discussion: Ray Bath, Mike Schaffer, Jane Speaker, and Norman Sinclair (nonmember)

Lab Management Workshop: Donna Waggoner (nonmember), Tom Rejent, and Dave Fretthold (nonmember)

A special thank you goes to the Tox-Talk editors, Yale Caplan and Marina Stajic. Their assistance with announcements and mailings was invaluable.

Ten exhibitors were present, and I am certain that they felt the exchange with the membership was worthwhile. A correction for the mailing address listed in the program for Matthew Bender needs to be made. It should read:

235 East 45th Street  
New York, NY 10017

The special contribution of Capillary Column Gas Chromatography textbooks by Hewlett Packard is sincerely appreciated, as well as the Special Issue of the Journal of Analytical Toxicology by Preston Publications. Those who are interested in receiving this issue may do so by sending a large, self-addressed, stamped (\$1.39) envelope to:

Joseph R. Monforte, Ph.D.  
Wayne Co. Medical Examiner's Office  
400 East Lafayette Street  
Detroit, MI 48226

As you can tell, I had a lot of help.

## SOFT NEWS

### Tax-Exempt Status Approved

Richard Prouty reports that the SOFT application for the tax-exempt status under Section 501 (c) (6) of the Internal Revenue Code has been approved by the IRS. A formal letter verifying the tax-exempt status of our organization is forthcoming.

The prompt response of the SOFT membership in returning the ballots regarding the tax-exempt status was of extreme importance in this matter and is greatly appreciated.

Special appreciation and thanks to Dr. Kurt Dubowski for his contribution and efforts in revising the SOFT By-Laws, as well as to Mr. Richard Prouty for his efforts in the subsequent handling of the application for tax-exempt status.

### New Officers and Board Members

At the 1983 Annual Business Meeting in Detroit, the following SOFT members were elected:

President – Joseph Monforte  
Vice President – Richard Prouty  
Secretary – H. Horton McCurdy  
and

Board of Directors  
Kurt Dubowski  
Alphonse Poklis  
Michael Shaffer  
Norman Wade

CONGRATULATIONS!

### 1983 SOFT ERA Award Recipient Receives Another Award

Paul W. Hale, Jr., the 1983 recipient of the SOFT Education Research Award, has also received a 1983 Student Research Award from the American Association of Poison Control Centers for the study of "Stereoisomers of Thioridazine-5-sulfoxide: Cardiotoxicity in the Mammalian System". The award includes financial support for his research and a travel advance to the meeting of the American Association of Poison Control Centers in San Diego, in October 1984.

Preliminary studies made possible by the SOFT ERA were helpful in obtaining this new award.

## IN MEMORIAM Helen Sunshine

by Joseph R. Monforte, Ph.D.

It is with great personal sadness that I inform you of the recent death of Helen Sunshine who died on November 19, 1983.

Many of us have fond memories of Helen – her love of travel, art, and stimulating conversation; her friendliness, graciousness, and compassion; even her incredible ability to locate the nearest swimming pool at any meeting site.

Helen Sunshine was loved, she is missed, and she will be remembered.

To Dr. Irving Sunshine we extend our sympathy, and we share his sorrow.

In memory of Helen Sunshine, contributions may be made to:

Workman's Circle  
1980 South Green  
South Euclid, OH 44141

or  
Education Foundation of the Cuyahoga County  
League of Women Voters  
158 Euclid Avenue  
Cleveland, OH 44106

To all SOFT members  
from Dr. Irving Sunshine

So many have responded, to reach them all would be rather difficult at this time, hence . . .

*"All the Sunshines appreciate your support,  
Your caring and giving,  
You helped us through our most trying experience.*

*Please accept our inadequate "Thank you".*

*The trail so arduous, and the respites so brief,  
Was more bearable because your continuing support*

*Enveloped me in a green bower,  
Transposed the dreary walls into a fairyland  
of color,  
And enveloped us in a sea of affection.*

*If wishes could do what science couldn't,  
This would be written, but in a different vein,*

*Since it was not to be,  
I leave you your memories  
Of shared activities, thoughts and pleasures.*

*These many happy hours of talking, listening  
and doing,*

*The comings, and goings,  
All filled us with joy and pleasure.  
Don't stop because you're grieving.  
Sing on."*

**Maintain Your SOFT Membership;  
Send Your Annual Dues to Michael McGee,  
2021 41st Street – #109, Galveston, TX 77550**

# Meeting Highlights and Reports

## SOFT Board of Directors Telephone Conference Call June 30, 1983 Highlights

- Board accepted the Restated Certificate of Corporation.
- Plans were finalized for the mail ballot on the By-Laws revision needed to seek IRS Tax Exempt Status.
- Board decided to publish the annual meeting minutes in ToxTalk in their entirety and that Board minutes be published in a condensed and summarized format.
- Reports concerning the ToxTalk Newsletter, the JAT special issue and the Detroit meeting were presented.
- Membership was increased by 8 full members and 5 associate members.
- The new membership directory is near completion and will be distributed this fall.

## Canadian Society of Forensic Sciences

by Jesse H. Bidanset, Ph.D.

The Annual Meeting of the Canadian Society of Forensic Sciences was held August 13-19 in Vancouver, British Columbia. The Society met jointly with the Northwest Association of Forensic Scientists. The new chairman of the Toxicology Section is Carole Pelet, replacing Harold Peel. The 1984 meeting will be held at the Vicount Court in Winnipeg, Manitoba, during the week of August 18 through 24. Information can be obtained from Dr. Wayne Hindmarsh, College of Pharmacy, University of Saskatchewan, Saskatoon, Saskatchewan.

The 1985 meeting will be a joint meeting with SOFT in Montreal. Dr. Chris W. Herten Greaven has been elected president-elect of the Society and will host that joint meeting. That meeting will mark the fifteenth anniversary of SOFT.

## California Association of Toxicologists

February 4, 1984, at Sacramento, California  
Host:

Norman Wade, California Department of Justice  
4949 Broadway  
Sacramento, CA 95820  
(916) 739-5128

May 4, 1984, at San Diego, California  
Quality Control Workshop

Hosts:  
Dr. Cliff Walberg, Department of Pathology  
1200 North State Street  
Los Angeles, CA 90033  
(213) 226-6926  
and

Dr. Pat Field, Toxicology Section, State  
Laboratory of Hygiene  
465 Henry Mall  
Madison, WI 53706  
(608) 262-0663

May 5, 1984, at San Diego, California  
Host:

Dick Shaw, San Diego County Coroner's Lab  
5555 Overland Avenue  
San Diego, CA 92123  
(619) 565-5645

August 4, 1984, in the Bay Area, California  
Host:

Ian Irwin, Drug Assay Lab, Stanford University  
Medical Center  
Stanford, CA 94305  
(415) 497-6111

November 3, 1984, in Los Angeles, California  
Host:

Larry Plutchak, UTAK Laboratories  
21704 West Golden Triangle Road, Suite 405A  
Saugus, CA 91350  
(805) 259-1041

## AAFS

The American Academy of Forensic Sciences 1984 Annual Meeting is February 21-25, 1984, at Anaheim, California. For information write to:

AAFS  
225 South Academy Boulevard  
Colorado Springs, CO 80910  
(303) 596-6006

## Southern Association of Forensic Scientists

### Toxicology Section Chattanooga, Tennessee 1983

#### Roundtable Discussion Topics

"Endogenous formation of a significant level of cyanide in an autopsy specimen"

Larry J. Lewellen  
Atlanta, Georgia

"Absorption of dinitrobutylphenol through skin results in death: an industrial accident"

Joan Cagle  
Macon, Georgia

"Recent applications of color tests in forensic toxicology"

Emelina G. Saker  
Atlanta, Georgia

"Detection and confirmation of paraquat in blood and tissues"

William H. Wall  
Atlanta, Georgia

"Haloperidol overdose and a previously undocumented metabolite"

Larry J. Lewellen  
Atlanta, Georgia

"The evaluation of a RIA-THC kit and a preliminary study of THC occurrence in suspected DUI cases"

Paula S. Childs  
Atlanta, Georgia

"Comments on Caffeine overdoses"

William H. Wall  
Atlanta, Georgia

"Examination of ethylene glycol procedures and an antifreeze suicide (?)"

H. Chip Walls  
Birmingham, Alabama

"HPLC of certain anti-inflammatory agents"

Laura Shevlin  
&  
Phyllis Rollan

Auburn, Alabama  
"Analytical Toxicology of amoxapine overdoses"

Dell R. Roland  
Augusta, Georgia

"Analysis of arsenic in forensic cases utilizing a rapid, nonashing, atomic absorption method"

Everett T. Solomons  
Atlanta, Georgia

"Tissue distribution of arsenic after prolonged hospitalization following acute poisoning"

H. Chip Walls  
Birmingham, Alabama

"A radical change in DUI-drug patterns following action by the state legislature"

Anne E. Eskew  
Atlanta, Georgia

"Violent crimes associated with cocaine drug abuse"

Sally Watford  
Savannah, Georgia

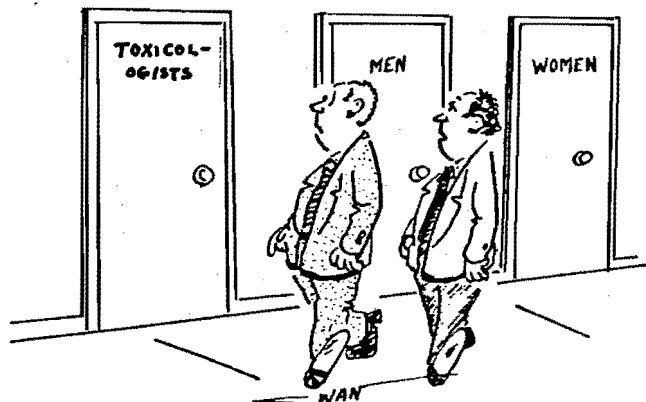
"Excretion rates and withdrawal symptoms in long-term high dose abusers of diazepam"

H. Horton McCurdy  
Atlanta, Georgia

"Comparison of the Mark IV and the 3000 Intoximeter to blood alcohol determinations"

Julia Taylor  
&

Dan Royce  
Donaldsonville, Tennessee



"They're a breed apart."