

Society of Forensic Toxicologists, Inc.

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ToxTalk

VOLUME 20, No. 4

DECEMBER 1996

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1996 ANNUAL MEETING HOSTS

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IN THIS ISSUE

REGULAR FEATURES: Journal Club ✂ Professional Calendar ✂ Career Opportunities ✂
Blutalkoholkonzentration ✂ Drugs in the News ✂ From the
Editor's Desk ✂ Elmer Gordon

TECHNICAL NOTES: CASE NOTES: Papaverine as a post-mortem artifact from a
sphenous vein harvesting procedure (Rieders) ✂ Drug Findings
at the Wayne County MEO (Isenschmid/Hepler)

OF SPECIAL INTEREST: 1997 Board of Directors ✂ Recap of SOFT'96 ✂ 1997 SOFT
Annual Meeting preliminary information ✂ JCETT Newsletter

INSERTS: JAT Call for Papers ✂ SOFT '96 Abstracts

CALENDAR CHECK!

1/01/97 SOFT Dues

10/5-9/97 SOFT Annual Meeting

3/10/97 JAT/SOFT Abstracts

3/24/97 JAT/SOFT Papers

ON DECK: PLANNED FOR THE NEXT ISSUE

President's Message (Watts) ✂ From the Editor's Desk (Monforte) ✂ 1997 Committees, Chairs and
Members (Watts) ✂ Journal Club (Walls) ✂ Case Notes: (Isenschmid, all members) ✂
Blutalkoholkonzentration (Wigmore) ✂ Drugs in the News (Monforte, all members) ✂ 1997 SOFT
Meeting (Crouch/Moody) ✂ JAT Special Issue (Poklis) ✂ Feb. 1997 Board Meeting Synopsis
(Huestis) ✂ A Closer Look at SOFT: ERA (with new brochure) ✂ YOUR CONTRIBUTION! ✂

ToxTalk is mailed quarterly (bulk mail) to members of the *Society of Forensic Toxicologists, Inc.* It is each member's responsibility to report changes of address to the SOFT mailing address (Mesa, AZ - above). Non-members may now receive **ToxTalk** for \$15 per calendar year. Make your check payable to SOFT, and mail it to the **ToxTalk** Editor.

All members and others are encouraged to contribute to **ToxTalk**. Mail material to :

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DEADLINES: Feb. 1, May 1, Aug. 1, and Nov. 1. **NEXT DEADLINE:** Feb. 1, 1996

SOFT is a supporting organization of the American Board of Forensic Toxicology

PRESIDENT'S MESSAGE by H. Chip Walls, B.S.

During the past year, I have enjoyed the opportunity to serve as your President. I want to thank each of you for your support during the year as well as your endeavors for SOFT. The year's service was made ever so easy by the interactions with my fellow officers, VP Vickie Watts, Secretary Marilyn Huestis, and Treasurer Joe Saady, along with Board members L. Hearn, Mick Smith, Bob Zettl, Laurel Farrell, and Dan Isenschmid. I would also like to thank all the committee chairs for their hard work: Kurt Dubowski - Bylaws; Jim Valentour - Budget, Finance and Audit; Marilyn Huestis - Membership; Vina Spiehler - Nominating; Joe Monforte - ToxTalk; Ed Cone - Publications (JAT); Dave Moody - Education Research Award; Graham Jones - Guidelines; Dan Isenschmid - Health & Safety; Mark Lewis - Drugs & Driving; and Bill Anderson - ad hoc Policy & Procedures; as well as all those who shared of themselves to serve on these committees. I would also like to recognize the members of the Meeting Resource Committee who are past, present, and future annual meeting hosts: Vickie Watts (Phoenix '93), Yale Caplan (Baltimore '95), Bob Zettl and Laurel Farrell (Denver '96), Denny Crouch and Dave Moody (Utah '97) and N.G.S. Rao and Ron Backer (Albuquerque '98).

Committee work is the heart and soul of the Society, and, next to the annual conference, the most visible effort of SOFT. A good example is the Education Research Award Committee. During this year, revisions were completed for the ERA brochure, thereby giving better definition to the purpose of the award. The ERA Committee presented a record number of four awards. Bill Anderson accepted, perhaps, the most challenging assignment, producing a Policy and Procedures Manual for SOFT. Bill has started by collecting and reviewing the minutes of board and business meetings for the past ten years and documenting all motions and actions. This will be an on-going operation resulting in a "living" document amended at each meeting.

The Annual SOFT Meeting, Denver '96, was another huge success with over 350 registered folks representing 20 international regions. The majority of the workshop coordinators and speakers were, as I call it, "home-grown talent." Dan Isenschmid and Denny Crouch put together a record number of workshops with an attendance of more than 600. There were over 80 papers and posters presented during the last two days of the meeting. Amanda Jenkins and Bruce Goldberger did a marvelous job on the abstracts and the program/abstract book for the meeting. Lisa O'Dell enlisted over 40 vendors for a very successful trade show and much appreciated corporate-sponsorship. Laurel Farrell and Bob Zettl engineered a fantastic week for us, including, in addition to an outstanding scientific program, fantastic weather, wonderful social events, and a great hotel that allowed us to avoid the hassle of phone calls! Bob and Laurel devoted many, many hours of their personal time and had to work even harder at their professional responsibilities to accommodate any infringements while dealing with meeting business. On behalf of the entire organization, I extend to them my heartfelt thanks for their efforts and a job well done! And to all the volunteers who assisted with the myriad of meeting activities - pat yourselves on the back! I want to share with the hosts, volunteers, and each of you a comment that summarizes the many I received during the Denver meeting: "The workshops, posters and papers were some of the best I have attended and were combined with a truly warm and friendly attitude of the people here. This is really a great meeting."

The state of SOFT is evident in this year's meeting. I strongly encourage all of you to start planning NOW for the 1997 meeting in Snowbird, Utah. Remember, your contribution is what makes SOFT great! In looking back on 1996, ask yourself - Did I get my \$50 worth? I expect to hear a resounding "YES!!!!!!!"

My very best to all of our members. I look forward to seeing you again soon. &

FROM THE EDITOR'S DESK . . . Joseph R. Monforte, Ph.D., DABFT

Another great meeting! Many thanks to Laurel, Bob and the scores of many volunteers who made it happen. We are all grateful and appreciative.

An informative case report concerning papaverine appears in this issue of ToxTalk. The apparent inconsistency of detecting papaverine in postmortem specimens, but not in antemortem specimens, was posed to the group in attendance at the Elmer Gordon Open Forum, Mike Rieders had the explanation, and my thanks to Mike for sharing his experience with the membership.

We are quickly approaching the end of another calendar year, and I am happy to report that: (1) the "Tox Trivia" performance of the Past-Presidents Team (which, naturally, includes yours truly) remains legendary, and (2) none of my editorial staff has resigned. My sincere thanks to all who have contributed to TOX TALK this past year. &

Best wishes to all for a Happy and Healthy Holiday Season

Submit your items for ToxTalk to:

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1997 SOFT BOARD OF DIRECTORS

Following are the 1997 SOFT officers and directors. Those elected at the 1996 Annual Business Meeting in Denver are noted by an asterisk.

President: Vickie W. Watts, M.S.*
Vice President: Joseph J. Saady, Ph.D., DABFT*
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Laurel J. Farrell, B.A.
Daniel Isenschmid, Ph.D.
Amanda Jenkins, Ph.D.*
Thomas F. Simonick, B.S.*

TREASURY NOTES

Treasurer Saady reports the 1997 annual dues notices have been mailed to all members in good standing.

If you have not received your dues notice, please contact the SOFT Administrative Office at 602-839-9106 (phone and fax).

LAB ACCREDITATION APPLICATIONS NOW AVAILABLE

The American Board of Forensic Toxicology, Inc., is accepting applications for laboratory accreditation by ABFT. The first ten laboratories to apply will be eligible for a reduced application fee. The application fee will be nominal to pay for expenses involved with the application and inspection processes. The first group of inspectors, who are reimbursed for expenses only, have been identified and trained. If your laboratory is interested in this accreditation program, contact:

ABFT Administrative Office
P.O. Box 669, Colorado Springs, CO 80901-0669
(Telephone: 719-636-1100)

1996 SOFT ANNUAL MEETING FOLLOW UP

Greetings from your SOFT '96 Co-Hosts, Laurel J. Farrell and J. Robert Zettl! We want to thank all of you for your assistance in organizing what we believe was an excellent meeting. Thanks to the countless unsung, behind-the-scenes volunteers and to all who attended for your contributions in making this one of the best SOFT meetings ever.

A special "thanks" to our program committee for extra duty: Amanda Jenkins, Bruce Goldberger, Lisa O'Dell, Dan Isenschmid, Dennis Crouch, and Tim Rohrig and to all the workshop chairs, presenters, moderators, assistant moderators, etc..... We tried to say it to each of you personally, and we truly mean it when we say that without you, the members and attendees, the annual meeting would not have been such a huge success. We were often too busy to state our thanks, so we do so now in this brief message.

Please look for us at next year's meeting when we should be more relaxed and, hopefully, back to our senses. In the meantime, keep in touch! See you all in '97 at Snowbird, Utah, October 5th to 10th. Remember, book your reservations early and avoid that last minute rush. ☺

CORPORATE SUPPORT FOR '96 SOFT MEETING OUTSTANDING!

Submitted by Lisa O'Dell, Meeting Exhibit and Sponsor Coordinator

Adding to the great success of the Denver meeting were the sponsors and exhibitors. A record number of booths were filled as well as sponsorship that exceeded projected goals. SOFT would like to extend a very special "THANK YOU" by formally recognizing this year's corporate supporters.

Returning Exhibitors: Abbott Laboratories, Andwin Scientific, ANSYS, Behring Diagnostics, Biochemical Diagnostics, Biopool International, Bio-Rad Laboratories, Boehringer Mannheim Corporation, Capitol Vial, Chimera Research & Chemical, COHR Masterplan, Diagnostic Reagents, Diagnostix, Finnigan Corporation, FITZCO, Hamilton, Hewlett-Packard, Journal of Analytical Toxicology/Preston Publications, Lynn Peavey, Radian International LLC, Restek, Roche Diagnostic Systems, STC Technologies, Tekmar-Dohrmann, United Chemical Technologies, Utak Laboratories, Varian Associates, W.B. Saunders, and Zymark.

First-time Exhibitors: AG Communication Systems, Calibrate - The Pipet People, CMI, Isotec, Jones Chromatography Ltd., Lipomed Limited, National Draeger, and Pierce Chemical Company.

Corporate Sponsors: Andwin Scientific, Bio-Rad Laboratories, Boehringer Mannheim Corporation, Capitol Vial, COHR Masterplan, Diagnostic Reagents, Hallcrest, Journal of Analytical Toxicology/Preston Publications, Medtox Laboratories, Quality Assurance Service, Radian International LLC, Restek, Roche Diagnostic Systems, STC Technologies, United Chemical Technologies, Utak Laboratories and Varian Associates.

Exhibitor who traveled the farthest - Lipomed Limited (Switzerland)

Exhibitors who traveled the least - Jones Chromatography USA (Lakewood, CO) and W.B. Saunders (Aurora, CO) ☺

PLANS FOR SOFT '97 UNDERWAY

Submitted by Dave Moody

SOFT '97 will be held at the Cliff Lodge in Snowbird, Utah, on October 5 to October 9, 1997. Snowbird is an all-season resort located in Little Cottonwood Canyon, approximately 45 minutes from the Salt Lake International Airport. This year the meeting will start on Sunday. Workshops will begin Sunday morning followed by the scientific sessions from Tuesday morning until Thursday afternoon.

Our preliminary list of workshop topics includes:

Medicolegal aspects of alcohol testing and interpretation ☺ The pharmacology of herbal preparations and health foods ☺ Principles and techniques of solid-phase extraction ☺ Principles of HPLC ☺ Introduction to LC/MS analysis of drugs in biological specimens ☺ Fetal and pediatric pharmacology ☺ The analysis of drugs in alternative biological matrices ☺ Legal aspects of drug testing ☺ Robotics in the forensic laboratory

During the first weekend, Octoberfest will be celebrated at Snowbird. Opportunities for scenic hikes and tram rides occur throughout the week. A side trip to the Mormon Tabernacle Choir practice and/or Salt Lake's brew pubs is planned, and we can suggest other trips to the canyons of Southern Utah over the following weekend.

We look forward to seeing you at Snowbird in October of 1997! ☺

NOTES FROM THE 1996 ANNUAL BUSINESS MEETING AND BOARD OF DIRECTORS MEETING

Submitted by Marilyn Huestis, SOFT Secretary

SOFT President H. Chip Walls presided over the Board of Directors meeting on October 14 and the SOFT annual business meeting on October 17, 1996, in Denver, Colorado. Highlights of these meetings are addressed; copies of the minutes of the annual meeting will be distributed in a future issue of *ToxTalk*. A change in the bylaws now permits members to be converted to an inactive status after six months of delinquent dues and after two notifications by mail of non-receipts of payments. Dropped members may reapply for the appropriate membership category after paying dues owed at the time of prior membership termination. As of 10/10/96, SOFT has 507 members: 28 charter, 369 full, 80 associate, 16 student, and 14 retired members. Thirty-eight applicants were approved for membership from January to October of 1996. For the first time, new members and first-time meeting attendees were identified with special ribbons to enable SOFT members to welcome them to the organization.

ToxTalk editor, Joe Monforte, recognized the contributions of editorial staff Chip Walls, Jim Wigmore, Carl Selavka and the Health and Safety Committee.

Ed Cone, guest editor of the special SOFT issue of the *Journal of Analytical Toxicology (JAT)*, reported that 25 manuscripts were included in the excellent double edition. The double issue ran 180 pages; SOFT contributed \$7,000 of the \$14,000 additional printing costs to JAT. The Board voiced its appreciation for the continued support of SOFT's scientific endeavors by Preston Publications and Tinsley Preston.

Dave Moody, Chair of the Educational Research Award Committee reported that four of six applications for ERA awards were funded in 1996: Robert Joseph (University of Maryland with Ed Cone), Matt Slawson (University of Utah with Doug Rollins), George Behonick (St. Johns University with Jesse Bidanset), and Tracy Williams (University of Connecticut with Dennis Hill). The ERA Committee has recommended that future awards be utilized to sponsor travel to SOFT annual meetings by student investigators to present their research findings to the membership. ERA applications must now be submitted by May 1st of each year and must include an abstract submission to the annual meeting.

Laurel Farrell and Bob Zettl were heartily thanked for their hard work and the wonderful scientific program at the very successful SOFT '96 annual meeting. Registration for the meeting and for all seven workshops was excellent, and the social program, food and beverages were appreciated by all attendees. Looking ahead to 1997, the Center for Human Toxicology, spearheaded by Denny Crouch and Dave Moody, will be hosting the meeting near Salt Lake City, UT, at the Cliff House at Snowbird Mountain Resort, October 5th through the 9th. Denny Crouch provided an enticing and entertaining glimpse of advance arrangements. Please note that this meeting will be held from Sunday through Thursday allowing individuals to take advantage of the less expensive air fares available with a Saturday night stay and avoiding any conflict with the Jewish holidays. The 1998 SOFT annual meeting will be a joint SOFT-TIAFT meeting to be held October 5th through the 9th during the internationally famous Balloon Fiesta in Albuquerque, NM. N.G.S. Rao and Ron Backer will be hosts for SOFT, and Vina Spiehler will be the TIAFT host. Don't miss this chance to meet and network with our international toxicology colleagues.

Graham Jones reported on the progress of an accreditation program for forensic toxicology laboratories. The American Board of Forensic Toxicology (ABFT) will be administering the inspection and accreditation processes and have begun to accept applications. The JCETT committee has established an extensive lending library of toxicology-related materials including workshop manuals and videos. Members may contact Vickie Watts for borrowing information. Bill Anderson, chair of the new Policies and Procedures committee has begun to develop a policy manual for SOFT based upon the structure of the AAFS Toxicology Section's and CAT's manuals. He is reviewing the previous 10 years of SOFT Board of Directors' and annual meetings' minutes for inclusion of important issues in the policy manual. Vickie Watts is also working on a procedure manual for hosting an annual meeting. It is hoped that the experience and knowledge of past hosts can be more effectively communicated to new meeting hosts through this manual.

Treasurer Joe Saady announced that SOFT had been complimented for the completeness of their records during the recent IRS audit. The Board in turn expressed appreciation to Joe and SOFT's previous treasurers for their excellent record keeping skills. Vina Spiehler, chair of the Nominating committee, announced the slate for the 1997 officers and board members. The following officers and directors were elected by the membership: Vickie Watts, President; Joe Saady, Vice-President; Bob Zettl, Treasurer; and Amanda Jenkins and Tom Simonick, Board of Directors.

It was a wonderful and very busy annual meeting. If you attended, hope you had a stimulating and worthwhile experience and that you, as well as those who were unable to participate in SOFT '96, will join us in Utah in 1997. &

PLAN AHEAD FOR SOFT '97

Cliff Lodge, Snowbird, Utah

October 5-6 (Sunday-Monday) - Workshops
October 7-9 (Tuesday - Thursday) - Scientific Sessions

Case Notes:

Papaverine as a Post-mortem Artifact from a Saphenous Vein Harvesting Procedure

Submitted by: Michael F. Rieders, National Medical Services, 2300 Stratford Ave., Willow Grove, PA

A 52-year-old white female was found dead in her residence by her husband after a protracted period of described unarousable somnolence. While no note or other indication of suicide was found, drug overdose was considered and a toxicological analysis of blood was performed. Toxicological examination of aortic blood revealed multiple CNS depressants and other drugs:

codeine:	0.42 mg/L	flurazepam:	1 ng/mL
salicylate:	23 mg/L	promethazine:	0.3 mg/L
desalkylflurazepam:	0.14 mg/L	ephedrine:	0.83 mg/L
diphenhydramine:	0.2 mg/L	hydroxyethyl-flurazepam:	1 ng/mL
atropine:	1.0 mg/L	papaverine:	9.0

The decedent's husband reported that she had gone to sleep the night before with a bad cold, for which she had taken OTC and other medications. He also reported that she may have taken flurazepam chronically for anxiety. Atropine was injected during resuscitative procedures in the hospital emergency room.

The papaverine finding, which was confirmed by GC/MS, was both surprising and confounding. The autopsy report contained a provisional pathological diagnosis of a neoplasm, however this condition was undiagnosed and only discovered at autopsy. The autopsy report also noted postmortem removal of the bones of the lower legs, skin donor sites and postmortem enucleation of eyes.

Due to the unexplained nature of the papaverine findings, an extensive papaverine distribution was performed. The results are tabulated below.

Papaverine Distribution	
Specimen Type	mg/L or kg of wet tissue
Blood (Aortic)	9.0
Urine	None Detected (Detection Limit 0.02)
Lung	5.1
Muscle (left pectoral)	3.0
Brain & Kidney	0.03
Stomach Wall, Small & Large Bowel Tissue	0.3
Liver	0.2
Fat	None Detected (Detection Limit 0.08)
Injection Site (Antecubital Fossa)	None Detected (Detection Limit 0.4)
Injection Site (suspected) Posterolateral Tongue	1.4

The distribution of papaverine could be explained by perimortal intravenous administration followed by rapid death. Based on the toxicological findings, as well as other ancillary investigative information, a homicide investigation was commenced.

It was later determined that the saphenous veins had also been harvested. The harvesting procedure used a bolus of papaverine in saline to push blood anteriorly out of the veins prior to their removal. The papaverine, acting as a calcium channel blocker, helps preserve the integrity of the venous graft tissue prior to use. The distribution of papaverine was surprising and suspicious at the time of the initial toxicological examination. This new information provided a reasonable explanation for its presence and distribution. Analysis of a vial of blood taken just prior to tissue harvesting was obtained and contained all drugs in the post-harvesting specimen except papaverine.

This case demonstrates that undisclosed and undocumented administration of chemical substances during tissue organ harvesting procedures prior to autopsy can produce misleading postmortem artifacts. Forensic toxicologists must give consideration to such esoteric means of exposure before drawing conclusions and assigning importance to toxicological findings. ☼

DRUG FINDINGS AT THE WAYNE COUNTY MEDICAL EXAMINERS OFFICE

Submitted by: Dan Isenschmid, PhD and Brad Hepler, PhD

The following data represent a brief summary of some of the routine findings during toxicologic analysis of postmortem specimens at the Wayne County Medical Examiners Office (WCMEO) between 8/1/95 and 7/31/96. Wayne County has a population of approximately 2.2 million and includes the City of Detroit. We have attempted to present tables that include our most common drug findings (excluding caffeine, nicotine, lidocaine and atropine) as well as findings by manner of death where this may be of interest. In order to conserve space, we are not including any discussion of the data.

Table 1. Top 20 Drug Findings at the WCMEO (manner of death at the time of autopsy)

Analyte	All cases			Pending Manner			Natural Deaths		
	Found (N)	Tested (N)	Rate (%)	Found (N)	Tested (N)	Rate (%)	Found (N)	Tested (N)	Rate (%)
Ethanol	798	2877	24.64	145	504	28.77	179	1256	14.25
Cocaine / BE	331	1978	16.73	99	512	19.34	69	549	12.57
Diphenhydramine	85	759	11.20	51	444	11.49	15	99	15.15
CO	64	576	11.11	7	302	2.32	0	0	0
Morphine	198	1977	10.02	106	512	20.70	37	549	6.74
Codeine	118	1215	9.71	63	456	13.82	37	229	16.16
Chlorpheniramine	49	759	6.46	35	444	7.88	7	99	7.07
Nordiazepam	65	1174	5.54	32	450	7.11	19	215	8.84
Propoxyphene & Mb	38	759	5.01	18	444	4.05	12	99	12.12
Methadone & Mb	35	759	4.61	21	444	4.73	6	99	6.06
Amitriptyline & Mb	36	759	4.74	24	444	5.41	6	99	6.06
Doxepin & Mb	30	759	3.95	18	444	4.05	7	99	7.07
Dextromethorphan	28	759	3.69	21	444	4.73	4	99	4.04
Acetaminophen	15	425	3.53	14	371	3.77	0	0	0
6-Acetylmorphine	62	1977	3.14	41	512	8.01	11	549	2.00
Fluoxetine & Mb	23	759	3.03	13	444	2.93	2	99	2.02
Diazepam	34	1174	2.90	15	450	3.33	9	215	4.19
Sertraline & Mb	22	759	2.90	15	444	3.38	4	99	4.04
Doxylamine	21	759	2.77	16	444	3.60	3	99	3.03
Thioridazine & Mb	18	759	2.37	13	444	2.93	2	99	2.02

Table 2. Drugs of Abuse Findings at the WCMEO by Manner of Death (manner of death at the time of autopsy)

Analyte	Homicides			Motor Vehicle Accidents			Suicides		
	Found (N)	Tested (N)	Rate (%)	Found (N)	Tested (N)	Rate (%)	Found (N)	Tested (N)	Rate (%)
Ethanol	172	486	35.39	100	237	42.19	51	184	27.72
Cocaine / BE	106	477	22.22	14	94	14.89	20	161	12.42
Morphine	19	477	3.98	3	94	3.19	10	160	6.25
6-Acetylmorphine	2	477	0.42	0	94	0	2	160	1.25
	Other Accidents			Undetermined			Total Statistics		
Ethanol	46	166	27.71	16	39	41.03	Total Cases: 3083 Total Specimens: 10424		
Cocaine / BE	13	141	9.22	10	39	25.64			
Morphine	18	141	12.77	5	39	12.82			
6-Acetylmorphine	5	141	3.55	1	39	2.56			

DRUGS IN THE NEWS

Submitted by Joseph R. Monforte, Ph.D., DABFT

Marihuana - The November 05, 1996 election had propositions involving marihuana on ballots in two different states: Arizona (Proposition 200) and California (Proposition 215). The propositions passed in both states. Although there are similarities, the laws passed in these states also differ considerably. In Arizona the act is cited as the "Drug Medicalization, Prevention, and Control Act of 1996," and includes all Schedule 1 drugs. In California the initiative measure adds a new section to the existing Health and Safety Code, and specifically deals with marihuana.

Prescribing controlled substances for seriously ill and terminally ill patients is only a small portion of the act which the voters of Arizona passed. Other significant components deal with law enforcement issues and drug dependency treatment. For example, a person committing a violent crime under the influence of drugs must serve 100% of his or her sentence and not be eligible for parole or any form of early release; and non-violent persons convicted of personal possession or use of illegal drugs is eligible for immediate parole and drug treatment, education and community service. The newly passed act also contains other issues dealing with drug education and prevention programs specifically for parents, as well as a state-wide effort to treat drug abuse as a disease and therefore expand drug treatment and prevention programs in general.

The portion of the Arizona Law which deals with prescribing controlled substances for seriously ill and terminally ill patients is much more rigid than the law passed in California. In Arizona, the medical doctor must document that scientific research exists which supports the use of a controlled substance to treat a disease or to relieve the pain and suffering of a seriously ill or terminally ill patient before prescribing the controlled substance. Also, the attending physician must obtain the written opinion of a second medical doctor that the prescribing of the controlled substance is appropriate. The written opinion of the second physician is to be kept in the patient's official medical file. Finally, the consent of the patient must be received in writing.

The California Law deals specifically with marihuana, rather than "controlled substances." The law ensures that Californians have the right to obtain and use marihuana for medical purposes where the medical use is deemed appropriate and has been recommended by a physician who has determined that the person's health would benefit from the use of marihuana. Specific diseases are cited, but the law also includes "any other illness for which marijuana provides relief."

Other important components of the new California law are a provision to encourage the federal and state governments to implement a plan to provide for the safe and affordable distribution of marihuana to all patients in medical need of marihuana, and a provision to not punish a physician for having recommended marihuana to a patient for medical purposes. The Law also states that existing laws forbidding either the possession or cultivating of marihuana do not apply to a patient's physician who possesses or cultivates marihuana for the personal medical purposes of the patient upon the written oral recommendation or approval of a physician. This portion of the Law is significant in that, a written prescription for authorized marihuana use is not necessary in California.

Not surprisingly, the California Law has already been offered as the defense for a positive cannabinoid urine result.

"Fen-Phen" - An article in the July 12, 1996 Arizona Republic read "Doctors View Abuse As Big Threat to Diet Drugs." The article discussed "fen-phen," a combination of fenfluramine (Ponderax, Pondimin) and phentermine (Adipex, Ionamin). Both drugs are anorectic agents shown to be effective appetite suppressants. Fenfluramine is given in 20 mg dosages up to 160 mg a day, and phentermine is taken in 15 or 30 mg dosages, up to 30 mg a day.

The "fen-phen" program had its origin in 1992 when Dr. Michael Weintraub of the University of Rochester School of Medicine received a National Institute of Health grant to study the possible use of drugs as part of a total medical treatment for obesity. When used in tandem the drugs result in the production of serotonin, a neurotransmitter which sends the signal that the stomach is full and doesn't require more food.

The article cited several examples of obese individuals who have experienced significant weight losses as a result of "fen-phen" regimen. The fear is that many "fen-phen" clinics which may not use the drugs properly are surfacing throughout the country. Dr. Weintraub's program, for example, uses the drugs in much less dosages than indicated when the drugs are used separately. If not used properly, the potential for abuse becomes significant.

According to Baselt (1) blood concentrations of fenfluramine range from 0.035 - 0.299 mg/L, with the most significant weight occurring in individuals with blood concentrations in excess of 0.200 mg/L. Norfenfluramine and m-trifluoromethylbenzoic acid are the most prominent urinary metabolites. A variety of gas chromatographic methods have been reported for the analysis of fenfluramine and norfenfluramine.

Blood concentrations of phentermine range from 0.03 - 0.09 mg/L following single oral dosages and from 0.18 - 0.51 mg/L following ingestion of 30 mg/day for two weeks (1). The major urinary metabolites of phentermine are p-hydroxyphentermine and N-hydroxyphentermine, although much of the ingested phentermine appears unchanged in the urine. Methods for the analysis of phentermine are the same as those for amphetamine. Additional sensitivity has been achieved by derivative formation or mass spectrometric detection. &

(1) *Disposition of Toxic Drugs and Chemicals in Man*, 4th Ed, Randall C. Baselt and Robert H. Cravey, Eds, Chemical Toxicology Institute, Foster City, CA, 1995

Technical Notes: BLUTALKOHOLKONZENTRATION No. 15

Submitted by: J.G. Wigmore, B.Sc., Toxicology Section, Centre of Forensic Sciences, Toronto, Ontario, Canada

THE CONCENTRATION-DEPENDANT ETHANOL ELIMINATION RATE IN THE STEADY STATE

H.D. Wehner, M.Chr. Scheiffer, S. Krauss, and M. Hubig, *Blutalkohol* 33:17-22, 1996.

German title: *Konzentrationsabhangigkeit det Ethanolumsatzraten im steady-state*

Classical Widmark calculations tend to overestimate the BAC and underestimate the amount consumed, especially in subjects who consume alcohol in amounts greater than 1.0 g/kg and who consume alcohol over a long period of time (several hours or more). This discrepancy has been explained as due to the "absorption deficit." This study explored another possible explanation for this deficit.

One male and one female subject were infused alcohol IV to maintain various target BACs between 0.042 and 0.158 g/100 mL on 6 different occasions. The infusion was conducted via an adjustable infusion pump and the BACs were measured every 20 minutes. The infusion was adjusted to maintain the target BAC plateau. As the target BAC increased, the infusion rate had to be increased to maintain that BAC. At a BAC of 0.042 g/100 mL the infusion rate was 4.8 g/h which had to be increased to 5.5 g/h at a BAC of 0.104 g/100 mL.

The authors conclude that in the absorption phase the increase in the alcohol concentration of blood flowing to the liver causes a concentration-dependant increase in elimination rate. This increase in elimination rate in the absorption phase could explain the absorption deficit as the Widmark calculations are based on the apparent linear elimination rate that occurs in the elimination phase. ♀

CALL FOR CASE NOTES

Your case note should be about 1/2 page in length, no more than a full page. Material or a disk (using Microsoft Works/Word 2.0) may be mailed to:

Joseph R. Monforte, Ph.D., DABFT, ToxTalk Editor
846 Smoke Dr. (H.P.), Prescott, AZ 86301-7347

- or - **FAX: 520-771-1625 - new direct fax (after 11:30 a.m., E.S.T.)**
E-mail: monforte@juno.com

Other items of interest to SOFT members are also welcome.

Next deadline: FEBRUARY 1, 1996

A Closer Look at:

S.O.F.T. Member LISA O'DELL

Since the 1994 SOFT Annual Meeting, Lisa O'Dell has been responsible for exhibitors at every annual meeting. She has undertaken this tremendous responsibility in a very quiet, unassuming manner, effectively communicating with exhibitors and organizing the exhibit areas to the satisfaction of all. The number of exhibitors and sponsors continues to increase, and a quick glance at Lisa's article in this issue of TOXTALK provides some insight into the nature and types of information and record keeping which this responsibility demands.

Lisa has performed this task reliably and admirably, and has sought virtually no recognition for her efforts and accomplishments. Exhibitors and sponsors have become an important component of the SOFT Annual Meeting, and their presence and participation at the annual meeting is expected by the membership. In reality, a lot of effort is expended on exhibitors and sponsors every year, and we are indebted to Lisa for coordinating this portion of the annual meeting in her typical untiring, competent manner.

Lisa recently relocated to Colorado where she is employed by Worldwide Monitoring. On behalf of the membership - THANKS, LISA, for all your hard work. ♀

**Don't forget to pay your 1997 SOFT dues
so you may continue to receive ToxTalk and other member benefits**

Sponsoring organizations:

*American Academy of Forensic Sciences -Toxicology Section [AAFS]
American Association for Clinical Chemistry -TDM-Toxicology Division [AACC]
California Association of Toxicologists [CAT]
Midwest Association for Toxicology and Therapeutic Drug Monitoring [MATT]
Society of Forensic Toxicologists [SOFT]*

JCETT was established in 1993 to coordinate, develop, publicize, and encourage the training and continuing educational activities of the members of its sponsoring organizations. Each sponsoring organization (noted above) makes a professional and financial contribution to JCETT, whose operating fund as of October, 1996, was approximately \$1,455.

Toxicology Bibliography: Chip Walls prepares these bibliographies, similar to those published in the CAT and SOFT newsletters. The citations include papers on the analysis, interpretation, and effects of drugs and toxins. They are prepared on a quarterly basis and distributed to all sponsoring organizations. Chip and former JCETT member Rodger Foltz, Ph.D., continue to work on a bibliographic database, which presently has over 25,000 citations, many with abstracts, and occupies approximately 30MB of disk space. Chip and Tom Simonick are investigating the dissemination of the database either by ZIP cartridge, CD-ROM or on the Internet.

Visiting Scientist Program: A visiting scientist program has been established which includes a list of toxicology laboratories willing to accept visiting scientists. Laboratories or individuals interested in participating, either as a training facility or visiting scientist, should contact W. Lee Hearn at 305-545-2450 or Amanda Jenkins at 410-333-3242. Amanda has received 37 inquiries from all over the world requesting training, and a member of Tom Rosano's staff has been placed. Lee has indicated that several more laboratories are interested in having staff members placed. Amanda is currently revising the Visiting Scientist application form - please call her if you are interested in receiving a copy.

Educational Programs: The JCETT will disseminate information regarding Educational Programs including workshops, professional meetings, and specialized training programs of interest to clinical and forensic toxicologists. This activity is coordinated by Halle Weingarten, telephone 408-274-0696. The first JCETT-sponsored workshop, "Toxicology of Inhalants," was presented at the October meeting of SOFT and coordinated by Laurel Farrell. At that same meeting, Bruce Goldberger participated in the workshop "Toxicology and the Internet." The workshop was moderated by Don Frederick, Ph.D., and has a Web page located at: <http://www.execpc.com/~dfred/cybertox.html>. Bruce has his own Web page at: <http://www.med.ufl.edu/path/prod/faculty/home/personal/golbder1.htm>. Larry Bowers recently carried out a successful mass spectrometry workshop at the recent MATT meeting. Other workshop subjects involving JCETT members include: Accreditation (Weingarten), Pharmacokinetics (Mozayani), and possibly Intermediate and/or Advanced GC/MS. AAFFS members who have ideas for a workshop or wish to participate in one can contact Halle.

Lending Library: The JCETT is developing a system for inter-society loans from a central literature repository presently held by CAT. The library has workshop handouts, audio and video tapes, and publications. Materials will be available through a designated representative appointed by each sponsoring organization. This activity will be coordinated by Tom Rosano (518-262-3505), Laurel Farrell (303-691-4727), Judy Stewart (510-451-1060), and Vickie Watts (602-831-1049). The next edition of the JCETT Newsletter will include a listing of the training materials available and the procedure for borrowing them.

Newsletter: A bi-yearly JCETT Newsletter is published and distributed to all sponsoring organizations. This activity is coordinated by Tom Simonick.

CURRENT JCETT COMMITTEE MEMBERS

AAFS: Amanda Jenkins, Ph.D. (Vice-chair), Laurel Farrell, B.A., and Thomas Simonick, B.S.
AACC: Thomas Rosano, Ph.D. (Chair), Larry Bowers, Ph.D., and Bruce Goldberger, Ph.D.
CAT: Marilyn Huestis, Ph.D., Judy Stewart, B.S., and Halle Weingarten, B.S.
MATT: Irving Sunshine, Ph.D.
SOFT: Ashraf Mozayani, Ph.D., H. Chip Walls, B.S., and Vickie Watts, M.S.

Prepared by Thomas Simonick

ABFT NEWS

1997 REQUALIFICATIONS: Notices will be mailed by December 1st to all persons whose ABFT certificates expire June 30, 1997. Please respond before the stated deadlines.

ADDRESS UPDATE: All persons certified by ABFT are reminded to inform the ABFT Administrative Office of any address change.

CERTIFICATION PROGRAMS: Forensic toxicologists with a doctorate or masters degree who are interested in certification by the American Board of Forensic Toxicology should contact:

ABFT Administrative Office,
P.O. Box 669, Colorado Springs, CO 80901-0669
(Telephone: 719-636-1100)

JAT: SOFT SPECIAL ISSUE Call For Papers

Please see insert or contact

Alphonse Poklis, Ph.D., DABFT

(phone 804-828-0272, fax 804-828-7722)

DEADLINES: 3/10/97 abstracts

3/24/97 completed papers

FORENSIC TOXICOLOGISTS CERTIFICATION BOARD

Submitted by Everett Solomons, Ph.D., DABFT, D-FTCB

The Forensic Toxicologist Certification Board, Inc (FTCB) is a Board composed of toxicologists who came together to address the professional certification needs of toxicologists who desire to be evaluated by a Board of peers without regard to educational degree attained (i.e., bachelor's, masters or doctor of philosophy). The primary requirements being that the applicant demonstrate active successful endeavor in the field of Forensic Toxicology and successfully complete a knowledge examination. The FTCB was formed on 1992 and incorporated in 1993. Details regarding the Board and requirements may be obtained from the address listed below or from the FTCB soon to be completed internet web page.

Everett T. Solomons, President
Forensic Toxicologist Certification Board
P.O. Box 370808, Decatur, GA 30037-0808

The FTCB is currently sponsored by the Southern Association of Forensic Scientists and the Midwestern Association of Forensic Scientists. ☼

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INTERESTED IN SERVING ON A SOFT COMMITTEE?

CONTACT PRESIDENT-ELECT VICKIE WATTS

Tel: 602-831-8091
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e-mail: toxilady@aol.com

{ WANTED }

Interested SOFT members for ToxTalk

by Editor Monforte

to serve as staff member for ToxTalk responsible for a proposed regular feature, "Computer Corner," to inform members of computer applications to enhance the laboratory and other related items of interest. Staff members prepare materials and submit them quarterly in accordance with ToxTalk deadlines (February 1, May 1, August 1, and November 1).

Editor Monforte is also seeking ideas for future issues and persons to bring these ideas to fruition by serving as regular ToxTalk staff members or special contributors. Interested persons can contact Joseph Monforte by phone at 520-717-0617, fax at 520-771-1625, or e-mail at monforte@juno.com. ☒

ELMER GORDON OPEN FORUM

AN OPPORTUNITY FOR INFORMAL DIALOGUE

Reader Beware! SOFT member Dennis J. Crouch informed TOX TALK of an article that appeared in the DRE Spring 1996 Issue. The DRE article reported on a presentation given at the 1995 SOFT Meeting in Baltimore, Maryland. The presentation summarized results of a NHTSA-funded study involving DREs and subjects exposed to drugs.

The DRE article was very critical of the presentation, citing flawed analytical methodology and inaccuracies in interpretation of the data as major deficiencies in the study. Mr. Crouch is concerned with the number of factual errors in the article, as well as the subjective and suggestive language utilized. The DRE refused to publish a written response provided by Mr. Crouch and Dr. Stephen J. Heishman, the primary researchers mentioned in the article.

Mr. Crouch has considerable concern that the information communicated in the DRE article may be misleading to forensic scientists, particularly if it is cited as a source of scientific information for medical-legal purposes. Rather than relying solely on the contents of the article, it is recommended that interested persons obtain additional information relative to the study from: Dennis J. Crouch, B.S., MBA, Assistant Director, Center For Human Toxicology, University of Utah, Salt Lake City, Utah 84112.

Submit your informal notices to ToxTalk today! ✂

CAREER OPPORTUNITIES

Positions available are listed for the consideration of SOFT members. There is no fee for this service. The information will be repeated in the next issue only if the information is confirmed by the person who submitted it.

CHEMIST Wyoming statewide drug/alcohol program, \$1887-\$2359 mo., bachelor's degree and 2 yrs experience or master's degree. Contact Gene Rugotzke, Supervisor (307-777-7868) or State of Wyoming Personal Management Division (307-777-7188).

TOXICOLOGIST/CERTIFYING SCIENTIST, Onondaga County Health Dept Tox Lab, combined ME/FUDTL. BS or MS in applicable field with bench and data/case review experience in postmortem tox or qualification and experience as certifying scientists in CAP or NLCP-certified lab. Contact: Robert H. Powers, Ph.D., OCHD Toxicology Lab, 600 S State St, Syracuse NY 13202 or Sigmund Menchel, M.D., Chief ME, 330 W Onondaga St, Syracuse, NY 13202.

PROFESSIONAL CALENDAR

California Association of Toxicologists (CAT) quarterly meetings and workshops. For information contact Vickie Watts at 602-644-2077, FAX 602-644-2478.

American Academy of Forensic Sciences (AAFS) annual meeting: Contact Brenda Papke, 719-636-1100. Future AAFS meetings: **2/17-22/97** New York City.

SOFT Annual Meeting: Oct. 5-9, 1997, Snowbird, Utah, Dennis Crouch & David Moody, Co-Hosts. ✂

FUTURE SOFT MEETINGS: 1998 Albuquerque, NM, NGS Rao & Ronald Backer, Co-Hosts (Joint with TIAFT)

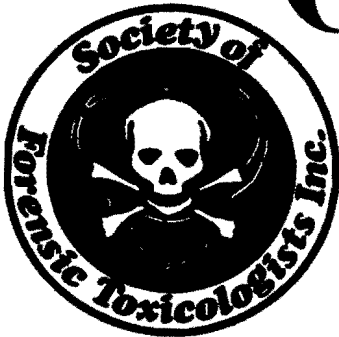
Southern Association of Forensic Scientists: April 16-19, 1997, Huntsville, AL. Spring meeting. Contact Martha Odom, AL Dept of Forensic Sciences, 716 Arcadia Circle, Huntsville, AL 35801. Telephone 205-539-1401

5th International Congress of Therapeutic Drug Monitoring and Clinical Toxicology: Nov. 11-14, 1997, Vancouver, British Columbia. Contact 5th International Congress, Events & Management Plus Inc., P O Box 1570, 190 Railway St, Kingston, Ontario, Canada K7L 5C8 (Tel: 613-531-9210, Fax: 613-531-0626)

REMINDER - S.O.F.T. CONTACT INFORMATION:

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CALL FOR PAPERS

SOFT/JAT SPECIAL ISSUE

The 17th annual October special issue of the *Journal of Analytical Toxicology* will again be published in collaboration with the **Society of Forensic Toxicologists (SOFT)**. The guest editor for this issue is Alphonse Poklis.

Original manuscripts to be considered for publication should be directed to:

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Box 98-0165
MCV Station
Richmond, VA 23298-0165

Telephone: (804) 828-0272 • FAX: (804) 828-7722

DEADLINES FOR SUBMISSION:
March 10, 1997: Abstracts
March 24, 1997: Completed Papers

Complimentary copies of this issue will be distributed at the *JAT* booth during the 1997 SOFT Annual Meeting (October 5-9, Salt Lake City, Utah).