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

This is my annual appeal for contributions (non-monetary) to ToxTalk. Although the publication has a membership circulation of nearly 400 persons, less than half a dozen contribute to the newsletter on a regular basis.

One objective of ToxTalk is to communicate information to the membership in a timely fashion. Recently, however, my impression is that ToxTalk has become heavy on news articles and light on technical articles. Consequently, this is a solicitation for technical materials. Please mail interesting or unusual case notes (1/2 page or less), technical notes (no more than one page), or other items of scientific interest to me at 1013 Three Mile, Grosse Pointe Park, MI 48230-1412. Share your experiences with your colleagues. <> <> <>

FINAL NOTICE

1993 SOFT/CAT JOINT MEETING October 10-16 Phoenix, Arizona

JULY 1 DEADLINES: Call for Papers, Grand Canyon Workshop registration, free T-shirt

1993 SOFT/CAT Meeting Host: Vickie W. Watts, Mesa Police Department
130 North Robson, Mesa, AZ 85201

IN THIS ISSUE

REGULAR FEATURES - Journal Club - Elmer Gordon Open Forum
- Career Opportunities - Professional Calendar

TECHNICAL NOTES - Blutalkoholkonzentration No. 2

INSERTS - 1993 SOFT/CAT Meeting: Program and Registration Form
Call for Papers (last chance), Hotel Registration Form

ToxTalk is mailed quarterly (bulk mail) to current members of the Society of Forensic Toxicologists, Inc. It is each member's responsibility to report changes of address to the SOFT Administrative office. Non-members may now receive ToxTalk for $15 per calendar year. Mail a check (payable to S.O.F.T.) to ToxTalk at the address below. All members and others are invited to contribute to ToxTalk. Contact the Administrative Office for membership applications.

DEADLINES: Feb. 1, May 1, Aug. 1, and Nov. 1.

NEXT DEADLINE -- AUGUST 1, 1993

S.O.F.T. ADMINISTRATIVE OFFICE: 1013 THREE MILE DRIVE • GROSSE POINTE PARK • MICHIGAN 48230-1412
The SOFT Administrative Office will be relocating in 1993. If necessary, correspondence may be addressed to President Poklis.
As President Bill Clinton has quickly learned in trying to push his budget through Congress and reform health care in the USA, arriving at a consensus of the American public on these issues is no simple matter. As with all human conflict, disagreement is seldom a proposition of good -vs- evil or right -vs- wrong, but rather a conflict of two opposing concepts of good. One opinion of what is correct or true -vs- another opinion of correctness or truth. This is the basis of all religious, political, and even scientific conflicts. Disagreement is certainly no stranger to forensic toxicology; indeed, the word "forensic" has its derivation in Latin: "to argue" or "debate."

Over the past three years, one area of debate among SOFT members has been the applicability of hair analysis to testing for drugs of abuse (HDT). For the benefit of newer SOFT members, and us graying grandfathers, the following history of SOFT and hair testing is presented. In May, 1990, a conference concerning HDT for workplace testing was convened in Washington D.C. under the auspices of SOFT, NIDA, and NIJ. A consensus opinion emanating from SOFT members who attended the conference (ToxTalk 14 #3) was brought by then President Robert Bost to the membership for consideration as a SOFT "consensus opinion." The opinion was accepted by vote of the members on September 14, 1990, at the 20th Annual Business Meeting in Melville, NY. An amendment requiring SOFT to review its opinion at the 1991 business meeting was also passed. At the 1991 meeting in Montreal, the HDT consensus opinion was affirmed; however, the membership required that a committee be formed to review SOFT's HDT position. This committee, chaired by Dr. Lee Hearn, after reviewing all current literature relative to HDT, distributed its report to the members (ToxTalk 16 #3, Suppl 1-11). With revisions contributed by the membership at the 1992 meeting in Cromwell, CT, a "revised" SOFT consensus opinion on HDT for workplace testing was adopted October 16, 1992 (ToxTalk 16 #4).

It has recently come to my attention that some who disagree with this consensus opinion have presented portions of the October, 1992, revised consensus opinion out of context in public forums. Therefore, in an effort to prevent misunderstanding or misinterpretation of this SOFT report, I have asked Dr. Charles Winek, Toxicology Editor for Forensic Science International, to publish the SOFT HDT consensus opinion in a future issue of that journal. He has agreed to publish this report.

Who knows, maybe debate brought forward, particularly among our international colleagues, may evolve into a new "universal consensus" on HDT. I do know that, like all scientific issues, more data rather than more rhetoric is likely to resolve disputes. I wonder if President Clinton could get a "consensus" consensus on HDT?

**CORRESPONDENCE FOR THE S.O.F.T SECRETARY**

should be addressed to:

Vina Spiehler, Ph.D., DABFT
SOFT Secretary
422 Tustin, Newport Beach, CA 92633
Telephone/FAX: 714-642-0574

**FORENSIC TOXICOLOGY LABORATORY GUIDELINES**

Copies of the SOFT/AAFS "Lab Guidelines" are available from the SOFT Administrative Office. Send a U.S. check or money order in the amount of $25 for U.S. orders; or international money order for $35 in U.S. funds for orders outside the U.S. (payable to SOFT).

The SOFT Administrative Office is still located at;

**1013 Three Mile Drive, Grosse Pointe Park, MI 48230-1412**

SOFT members and applicants will be notified when the office has relocated to Arizona (it may be a while yet). Submit materials to the above address unless otherwise noted.

The **SOFT Board of Directors and Committee Chairpersons** will meet during the 1993 SOFT/CAT meeting on Wednesday, October 13, from 8:30 am to noon. Report and reservation forms will be mailed in August. **Mark your calendars now!**
IMPORTANT DEADLINES

JULY 01 - Call for Papers - FREE T-shirt - Grand Canyon Workshop registration
PLEASE REGISTER EARLY. This allows the volunteer meeting committee to arrange
for adequate meeting rooms, etc. Requests for refunds may be honored until 10/2
with a nominal $10 assessment.

SEPT 10 - Pre-registration without late penalty. Please register early. As well as
avoiding the $20 late penalty, this allows the volunteer meeting committee to
make appropriate arrangements. Your cooperation will be greatly appreciated.

SEPT 21 - Hotel reservations at reduced rates. Reservation
envelope inserted in this issue of ToxTalk or call
The Buttes at 1-800-843-1986. Group rates apply
from Oct. 9th through 19th.

Complimentary transportation from Phoenix Sky
Harbor Airport. Call 1-800-843-1986 or 225-9000
upon arrival. BY CAR - The entrance is on 48th
STREET south of Broadway.

OCT 02 - Mail registration closed. After October 2nd, you will have to register at the
meeting. On site registrations are welcome, but, unfortunately, we cannot
guarantee the availability of all materials.

CORPORATE SUPPORT

Many of the following companies are familiar to SOFT members; they have regularly
participated at previous SOFT meetings. We also welcome some "newcomers" who will be
exhibiting this year.

Abbott Diagnostics
Biochemical Diagnostics
Biosite Diagnostics
CM-MPH
Diagnostic Products Corp.
Doxtech, Inc.
Finnigan MAT
Hewlett-Packard Corp.

Leap Technologies
Miles Laboratories
Microgenics
Lynn-Peavey Corp.
Perkin Elmer Corp.
Preston Publications
Radian Corporation
Restek Corporation

Roche Diagnostics
Sigma Chemical Co.
STC Diagnostics
Syva Company
Teckmar Company
Toxi-Lab, Inc.
Varian Sample Preparation
Worldwide Monitoring

We also wish to acknowledge the following for their sponsorship:

SYVA COMPANY - Arizona "Necktie Party" (welcome reception), Oct. 13, 6:30 - 8:00 pm
ROCHE DIAGNOSTICS - supporting a lunch
HEWLETT-PACKARD CORP. and OSBORN LABS - GC/MS workshop, oct. 12, 8:30 am - 4:30 pm
TOXI-LAB - The Forensic Toxicology Analytical Approach, Oct. 31, 8:30 am - noon
BIOSITE DIAGNOSTICS - Human Performance Testing - Drugs & Driving Impairment workshop,
oct. 13, 1:30 - 5:00 pm
RADIANT CORPORATION - underwriting the continuous Hospitality Suite
DIAGNOSTIC PRODUCTS CORP. and ABBOTT DIAGNOSTICS - contributing to coffee breaks
SIGMA CHEMICAL, DIAGNOSTIC PRODUCTS CORP., LEAP TECHNOLOGIES, ROCHE DIAGNOSTICS, TEKMAR,
and REAGENT APPLICATIONS - program advertising

Other companies which have indicated their intention to participate are reminded that only
confirmed exhibitors and sponsors will be acknowledged in ToxTalk. SOFT is seeking
exhibitors as well as support for workshops, a lunch, coffee breaks, and advertisements.
For information, please contact Tom Simonick or Vickie Watts at 602-644-2077.

A WORD ABOUT OUR SPONSORS . . . Soliciting companies as exhibitors and sponsors is a lot
of work, so why do we do it? Without this financial support, your registrations could
double! SOFT could not offer high quality workshops at such low fees. So please take the
time to visit the exhibits and talk with the reps. Say "thank you" to the companies that
sponsor events. Who benefits? Everyone.

(continued page 6)
TECHNICAL NOTES: BLUTALKOHOLKONZENTRATION No. 2

submitted by J. G. Wigmore, Centre of Forensic Sciences, Toronto, Ontario, Canada


This paper is a clinical study of 5 patients who were admitted to hospital suffering from hypovolemic shock as a result of traumatic injuries. The patients were all male, ranging in age from 20 to 58 years old. Two patients were injured as a result of automobile accidents, one in a fight, and 2 as a result of falls. Treatment of the patients varied according to injuries but in some cases included IV infusions of up to 1.5 L of whole blood and 1L of fluids. In one patient, surgery was conducted for 1 hr. 50 min. using halothane-nitrous oxide anaesthesia.

Blood samples were collected from the patients as soon as possible after the accident and were collected continuously at 1 to 2 hour intervals for 9 to 11 hours. Serum alcohol concentrations were determined in duplicate by the ADH method and in triplicate by the Widmark method. The mean serum alcohol concentration of the five analyses was then converted into a whole blood alcohol concentration (BAC) by the conversion factor of 1.2. The initial BACs of the five patients ranged from 0.075 to 0.173 g/100 mL. The mean rate of alcohol elimination for the first 3 hours varied from 0.009 to 0.016 g/100mL/h. The BAC data is plotted in Figure 1. The x axis shows the time in hours, and the y axis shows the BAC in g/100mL. The lines of regression are also plotted.

As shown in Figure 1, no large variations in the BAC curve were observed in these cases of shock. In only 1 case did the BAC increase with time and that was for patient no. 1, who finished consuming alcohol just 5 minutes prior to a single motor vehicle accident. The first blood sample was collected within 25 minutes of the accident, and the BAC was determined to be 0.130 g/100mL which increased to 0.140 g/100mL after 1 hour. The increase in BAC was due, probably, to incomplete absorption at the time of the first blood sample and not as a result of any effects of shock. After the initial increase in BAC for this patient, the BAC curve followed a linear decline.

Some variation in the BAC curves may be due to the use of a constant serum/blood alcohol ratio of 1.2. Brettel et al. (Blutalkohol 8:360-373, 1971) have previously determined that with increasing shock, the serum/blood alcohol ratio can decrease to as low as 1.05. This is due to the water content of the blood, as a result of shock, increasing to a greater extent than the water content of the serum. In addition, the infusion of fluids as part of the treatment for shock would be expected to lower the serum/blood alcohol ratio.

One usual feature of the BAC curves in these patients with shock is the appearance of a long plateau at BACs less than 0.021 g/100mL. No explanation is given for the appearance of these plateaus.

Due to these plateaus, the authors state that one is unable to back calculate the BAC in persons with traumatic shock if the BAC is less than 0.021 g/100mL. Back calculations in patients with higher BACs is acceptable in these cases, but the authors caution that the rate of alcohol elimination may temporarily be less than 0.010 g/100mL/h.

Acknowledgement:

The assistance of Mike Corburt in providing the computer generated plot of Figure 1 is acknowledged.

BAC vs Time for Five Victims of Traumatic Shock

Data of Brettel and Henrich, 1979


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SOFT ROSTER GROWING

Between January 1 and June 1, 1993, twenty-three persons have been added to SOFT’s membership roster.


ASSOCIATE MEMBERS: Cathy Gerlett, John Harrison, Jana Janesko, and Thomas Rosano.

STUDENT MEMBERS: George Behonick and Mary Ripple.

PROMOTIONS: Laurie Ogilvie and Sam Howell have been promoted to full membership status.

Drs. Robert Blanke and Paul Schweda have requested retirement status which have been approved by the Board effective 1/1/94. Members who wish to request retirement status for 1994 must do so before Oct. 1, 1993, to allow adequate time for necessary Board approval.

APPLICANTS are reminded of the sixty day deadline for completing application materials, including all references. The Membership Committee will be reviewing eight completed membership and two promotion applications.

(... cont. from page 3) MORE ANNUAL MEETING INFORMATION

EXTRA-CURRICULAR ACTIVITIES: As evident in the enclosed preliminary meeting program, this is going to be a busy meeting (rather typical for SOFT). However, for those who are arriving early or staying over, there are many opportunities to explore Arizona’s reputation as an outstanding tourist state. You may save enough money on airfare by staying over a Saturday to offset the cost of your hotel. Vickie Watts is compiling a list of potential activities which will be included in this issue of ToxTalk. Vickie is also working on POSSIBLE AIR FARE AND CAR RENTAL DISCOUNTS, as described in the enclosure. PLEASE RETURN THE QUESTIONNAIRE which required a lot of effort to put together and will determine which activities will be available. An activities registration form should be included in the next ToxTalk - watch for it.

FYI: Arizona Office of Tourism 602-542-3618 Arizona State Parks 602-542-4174

ATTENTION MEETING GUESTS: The meeting committee plans to offer guests daily activities. More information will be contained in Vickie’s list mentioned above. Guests will be invited to meet daily in the Hospitality Suite (thanks again, Radian) to review activities. The Buttes Resort is also a wonderful place to relax by the pool.

PACKING TIPS: Sun glasses, sun block, hat, swimsuit, comfortable walking shoes, tennis gear, lightweight casual clothes for air-conditioned rooms. Remember, the official dress code for this meeting is informal. We expect you to wear your meeting T-shirt (1 free if you register by July 1st; for sale until Oct. 2nd). Leave the dress clothes at home unless you plan to eat at a very expensive restaurant. The temperature in Arizona in October is usually somewhere in the 80’s, cooling to the 60’s at night.

OFFICIAL NOTICE - IF YOU WEAR A NECKTIE, YOU MAY GET IT CUT OFF BY THE “TIE POSSE.”

TENNIS, ANYONE? Contact Tinsley Preston, JAT/Preston Publications, P. O. Box 48312, Niles, IL 60648 (FAX 708-965-7639) to participate in the first JAT Invitational Doubles Tennis Tournament. This is strictly for fun - all levels of players are invited. If enough people are interested, this may become an annual event.

HELP!!! Imagine being informed that you will be receiving anywhere from 100 to 10,000 samples for multiple analyses which must be completed immediately and you have a restricted budget. How do you prepare? This is the same question challenging each annual meeting committee. Please register early. There are a lot of incentives to do so.

COPY THIS PAGE AND TAKE IT HOME!!!!

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Rosemary Kincaid is on the challenging road to recovery. Correspondence and calls from her colleagues would be welcome. Contact Dr. Kincaid at 275 Maple St, Warminster, PA 18974. Telephone 215-443-8935.

A.B.F.T. CANDIDATES - The ABFT examination will be offered on October 12 during the SOFT/CAT meeting in Phoenix. All candidates must register with Dr. Poklis by September 3rd if they wish to sit for this examination.

A.B.F.T. CERTIFIED FORENSIC TOXICOLOGISTS AND TOXICOLOGY SPECIALISTS - don't forget to attend the first ABFT breakfast on October 14 (Thursday) during the SOFT/CAT meeting. Register for the breakfast when you register for the meeting. You must be ABFT certified to attend.

1994 DUES NOTICES WILL BE INCLUDED IN THE NEXT ISSUE OF TOXTALK. PAY BEFORE JANUARY 1, 1994, AND AVOID THE LATE PAYMENT PENALTY.

ATTN. CAP INSPECTORS - Breakfast meeting Oct. 15 (Friday) in Phoenix. Check the appropriate spot on the SOFT/CAT Meeting registration form.

NIDA INSPECTORS meeting on Oct. 15 (Friday) 6:30 to 10:00 pm. Pre-registration required.

CAREER OPPORTUNITIES

Positions available are listed for the consideration of SOFT members. There is no fee for this service. Contact ToxTalk to repeat the information in the next quarterly issue.

LAB MGR/CERTIFYING SCIENTIST: MS or equiv + 5 yrs experience, technical direction, data review, IA/GC/MS data cert, QC and CoC, lab supv, scheduling and instrumentation maintenance experience required. Small lab, blind QC materials, research, NIDA/CAP certified, EOE. CV, transcript and 3 refs to: Elsohly Laboratories, Inc., 1215A Jackson Ave East, Oxford, MS 38655 (601-236-2609, FAX 601-234-0253).

FORENSIC TOXICOLOGIST (Richmond, VA): DABFT or eligible, perform & supervise analyses on ME submissions and testify on interpretations; salary $36,696 - $56,029. Contact Commonwealth of Virginia, Dept. of General services, Human Resources, 805 E Main St, Richmond, VA 23219 (804-786-3910).

FORENSIC CHEMIST: Bachelor's degree in clin chem, analyt tox or med tech (ASCP cert), familiar with GC, TLC, GC/MS, HPLC, IA and spectrophotometry; Milwaukee Co. MEO; salary $27,561 - $37,551, EOE. Contact Milwaukee Co. Dept. of Human Resources, Courthouse Room 21C, 901 N. 9th St., Milwaukee, WI 53233 (Ron Stanney 414-278-4163, FAX 414-223-1379).

RESEARCH CHEMIST: MS or PhD in tox, clin chem or analyt chem with 4-5 yrs experience in research chemistry desirable; GC/MS, ELISA and EMIT experience required; new position with supervisory and publication potential; work on new proprietary drug testing technology. CVs to PharmChem Labs, SJB-JS, 1505A O'Brien Dr, Menlo Park, CA 94025 (Jacqueline Sutliff 800-446-5177 x230).

FORENSIC SCIENTIST - TOXICOLOGY: 2 positions opening with NY State Police Crime Lab. Contact: Mr. Robert Horn, Dir. of NYSP Labs, BLG #22, State Campus, Albany, NY 12226 (518-457-2466).

CERTIFYING SCIENTIST: BS chemist, MT(ASCP), or equiv with for tox experience in IA, GC, GC/MS, and QC, supervisory experience also helpful. Private full service NIDA certified lab also serving MEs and law enforcement agencies. Contact Dwain Fuller, Sierra Nevada Laboratories, Reno, NV 800-765-2755 x251, FAX 702-334-3452.

TOXICOLOGY BUREAU HEAD: MS + 8 yrs exp or Ph.D. with 5 yrs; strong admin/mgmt required; system includes breath/blood alc, DUID and ME support progrms. Contact M Carlucci, State of New Mexico Scientific Lab Div., Albuquerque (505-841-2547). This information not recently confirmed. <> <> <>
PROFESSIONAL CALENDAR


2nd NATIONAL CONFERENCE ON DRUG ABUSE RESEARCH AND PRACTICE: AN ALLIANCE FOR THE 21st CENTURY - July 14-17, Washington, DC, sponsored by NIDA. Contact Basic Health Mgmt, Inc., 8403 Colesville Rd, Suite 805, Silver Spring, MD 20910 (Tel 301-565-2205)

THE INTERNATIONAL ASSOCIATION OF FORENSIC TOXICOLOGISTS (TIAFT) Congress on Forensic Toxicology: August 15-20, 1993, Leipzig (Germany) Contact Dr. Vina Spiehler, TIAFT Secretary, DPC, 5700 W 96th St, Los Angeles, CA 90045.

INTERNATIONAL ASSOCIATION OF FORENSIC SCIENCES: August 22-28, 1993, Dusseldorf. Contact Institut fur Rechtzmedizin, Congress Secretariat, Moorrenstr. 5, d-4000 Dusseldorf, Germany

CANADIAN SOCIETY OF FORENSIC SCIENCE (CSFS) ANNUAL MEETING - Sept 8-12, Winnipeg, Manitoba. Contact Ron Hrynchuk, c/o Forensic Lab RCMP, 621 Academy Rd, Winnipeg, Manitoba R3N 0E7 Canada (Tel 204-983-7376)

C.A.T. COURSE - TOXICOLOGY II: Sept 13-17, Los Angeles area; LC, advanced GC, GC/MS. Contact Halle Weingarten, 462 Stedman, Monrovia, CA 91016 for details.

SOFT/CAT JOINT MEETING - OCTOBER 10-16, 1993 - PHOENIX, ARIZONA
Contact: Vickie Watts, 1993 SOFT/CAT Meeting Host, 130 N Robson, Mesa, AZ 85201
Telephone: 602-644-2077 FAX: 602-644-2467

SOFT/TIAFT (The International Association of Forensic Toxicologists) JOINT MEETING: Oct. 31 - Nov 4, 1994, Tampa, FL. First joint SOFT/TIAFT meeting! SOFT Host - Dr. Horton McCurdy, Georgia Bureau of Investigation, Division of Forensic Sciences, P.O. Box 370808, Decatur, GA 30037-0808 (telephone: 404-244-2683)


A.A.F.S. ANNUAL MEETING: 1994 San Antonio. Contact Brenda Papke, P. O. Box 669, Colorado Springs, CO 80901 (Telephone 719-636-1100)


1995 - SOFT 25th ANNIVERSARY MEETING, Baltimore. Contact Dr. Yale Caplan, 1995 SOFT Meeting Host, National Center for Forensic Science, Div Maryland Medical Lab, 1901 Sulphur Spring Rd, Baltimore, MD 21227 (Telephone: 410-536-1485)

CALL FOR PAPERS - SOFT/CAT 1993 MEETING

We need your participation and cooperation. Abstract forms are enclosed in this issue of ToxTalk and were also in the March issue. Deb Rector reports little response to date. Scientific information exchange is the purpose of these meetings. Take the time. Now. Just do it! (Please.)

Note: THE S.O.F.T. ADMINISTRATIVE OFFICE IS STILL IN MICHIGAN. The house is for sale, but the market is slow. We'll probably be here for a while. I'll keep you informed. Pat