



# ToxTalk

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## ToxTalk 30<sup>th</sup> Anniversary Continues!

### IN THIS ISSUE . . .

- ✂ **CASE NOTES:** Matthew Barnhill, Jr., Ph.D., DABFT  
*Five Cases of D-amphetamine Positive Urines Resulting from Ingestion of "Brazilian Nutritional Supplements" Containing Fenproporex (Jemionek et al)*  
*Methanol Toxicity Fatality (Jacquelyn Orlandino)*  
*Forensic Therapeutic Drug Monitoring in a Patient (S.M.) with Chronic Hypertension (Uges)*  
*A Venlafaxine Overdose (Lykissa)*
- ✂ **DRUGS IN THE NEWS:** Dwain Fuller, BS, D-FTCB, TC-NRCC  
*Lethal Injection: Painful Fact or Junk Science? (Merrick / Fuller)*
- ✂ **EXTRAPOLATIONS:** Donald Kippenberger, Ph.D.
- ✂ **REGULAR FEATURES:** President's Message
  - ✂ Elmer Gordon Open Forum
  - ✂ Professional Calendar
  - ✂ 2006 Meeting Information & Preliminary Program
- ✂ **OF SPECIAL INTEREST:** ToxTalk Looks Back . . .
  - ✂ Letter to the Editor: Alprazolam concentrations (Benjamin)
- ✂ **INSERTS:** 2006 SOFT Annual Meeting "Call for Papers"  
2006 Meeting Workshop Program ✂ 2006 Fun Run  
2006 SOFT Membership Directory (*members only*)

**SOFT 2006 Annual Meeting**  
**AUSTIN, TEXAS**  
October 3 – 7, 2006



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 to 5304 Widener Strip, Midland, TX 79707. Subscriptions expire each January.

**DEADLINES:** Feb. 1, May 1, July 15, and Nov. 1

**NEXT DEADLINE: before July 15, 2006**



# PRESIDENT'S MESSAGE

**Timothy Rohrig, Ph.D., DABFT**

It is a great privilege to serve as the 2006 President of the Society of Forensic Toxicologists, but this office is far more than just an honor. It represents an obligation to serve and represent all of you – the SOFT membership. The continuing goal of this organization is to provide a forum for educational opportunities and professional camaraderie. It is also my responsibility to ensure the Society continues to provide support to its membership and operates in an efficient and fiscally responsible manner.

One of the first managerial duties of the President is to appoint or reappoint committee chairs. I have listed elsewhere in this issue a list of the SOFT committees and their respective chairs. Please join me in thanking those who have accepted the responsibility to volunteer their valuable time to lead the various committees of our organization.

As we are enjoying the spring season with the new growth of grass and flowers – I am reminded of the significant growth in our organization. SOFT has experienced dramatic increases in membership and in the number of attendees at our annual professional meeting. The joint FBI/SOFT/TIAFT meeting in 2004 had over 1,100 registered attendees. To assist in the monumental behind-the-scenes tasks in putting on a first-class professional meeting, last year's president, Graham Jones, re-introduced the position of SOFT Meeting Coordinator. This position, in concert with the Vice President and the Vendor Liaison, will assure continuity of the logistical aspects of the annual meeting. At the mid-year Board meeting, held in Seattle, WA, the Board of Directors made several decisions which will improve the efficiency of the organization and provide a more expeditious service to our membership. The Board approved increasing the allotted time for Ms. Bonnie Fulmer who provides administrative support to the Board and Organization. The Board also approved finding a "real home" for the SOFT Office, moving it from a "PO Box". This will provide space to maintain SOFT membership information and other records as well as a central location for our organization.

I have been following the planning for our upcoming meeting in Austin – looks like it will again exceed the high bar that has been set by our previous meeting hosts. Finally, I would like to remind the membership of the fantastic educational opportunities that our meetings provide and to encourage our younger membership to apply for the meeting grant awards.

Have a GREAT Spring and help the flowers and SOFT grow! ☘

**DEADLINE FOR NEXT ISSUE OF TOXTALK: JULY 15, 2006**

## PRESIDENT ROHRIG APPOINTS 2006 COMMITTEE CHAIRS

**Awards [ERA and YSMA]:** Philip Kemp, Ph.D., DABFT (p\_kemp@ocmeokc.state.ok.us)

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**Drug Facilitated Sexual Assault:** Marc LeBeau, Ph.D. (marc.lebeau@ic.fbi.gov)

**Drugs and Driving:** Sarah Kerrigan, Ph.D. (sarah.kerrigan@earthlink.net)

**Ethics:** Aaron Jacobs, Ph.D. (Aaron.Jacobs@US.ARMY.MIL)

**SOFT/JAT Special Issue:** Marc LeBeau, Ph.D. (marc.lebeau@ic.fbi.gov)

**Laboratory Guidelines (SOFT/AAFS):** W. Lee Hearn, Ph.D. (wlh@miamidade.gov)

**Meeting Resource:** Diana Wilkins, M.S., Ph.D. (dwilkins@alanine.pharm.utah.edu)

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**ToxTalk:** Editor - Joseph Monforte, Ph.D., DABFT (DrMonforte@aol.com)

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**All SOFT members are encouraged to participate on SOFT committees.**

*If you would like any information regarding SOFT committees,*

*please contact the appropriate chairperson*



# SOFT 2006 Annual Meeting

## AUSTIN, TEXAS

October 3 – 7, 2006



### Welcome to the Home of SOFT 2006 – Austin, TX

We are excited to have SOFT come to Austin in 2006 for its first visit to Texas. The meeting will be held at the Hilton Austin beginning Tuesday, October 3<sup>rd</sup> through Saturday October 7<sup>th</sup>. The meeting will begin one day later in recognition of Yom Kippur. The hotel is located near the lively "6<sup>th</sup> Street" dining and entertainment area with museums, the State Capitol, lake trails and shopping within walking distance. The "Dillo" trolley system provides transportation to each of these venues at no cost for those desiring less exercise. The final social event will be an evening at the beautiful new Texas History Museum. The heart of our organization is the science. We are planning a stimulating and informative collection of workshops, posters and platform presentations.

### Weather

The remnants of a hot Texas summer can last into October, but the average daytime highs are in the 70's. The Hilton Pool is outside and Barton Springs (Brrr...) is open year round so you may want to bring the swim gear or some shorts for a walk along Town Lake. Lows should be in the 50's or higher.

### Hotel Accommodations

The meeting will be held at the Hilton Austin located downtown at 500 East 4<sup>th</sup> Street. Discounted room rates for the convention will be \$125, single/double. The online reservation link from the SOFT website is the preferred approach – just click on the link. For telephone reservations, call 512-482-8000 and use the code SFT.

### Airport and Transportation

Austin-Bergstrom International airport is located less than 10 miles from downtown. Taxi cabs or shuttles are the primary mode of transportation from the airport to hotels. Parking fees at the Hilton are \$11 to \$16 (self park vs. valet). Transportation in the downtown area, including the campus of the University of Texas is provided at no cost via the "Dillo" trolley system.

### Explore Austin

Relax, Refresh, And Rejuvenate! Whether you enjoy being active by hiking, boating, cycling or golfing or you just want to chill by the lake, you'll find a lot to do in this friendly, eclectic city. Surrounded by the Texas hill country and its sparkling rivers and lakes, Austin is the seat of state government, and is home to seven universities, a vast array of museums, galleries, and shops as well as local and state parks. Nicknamed "The Live Music Capital of the World" its varied music venues will have you tapping your feet. After all, it is host to two internationally attended festivals - South by Southwest Film and Music conference as well as Austin City Limits. A few of the local points of interest include the Capitol, Lyndon Baines Johnson Presidential Library and Museum, Barton Springs, Zilker Botanical Gardens, Lady Bird Johnson Wildflower Center, and the "SOCO" district which helps maintain the "Keep Austin Weird" motto. Sunset viewing from the Oasis restaurant on Lake Travis is always a treat. Less than two hours away, experience wineries, popular state parks, and one of Texas' first German settlements, Fredericksburg. Plan extra leisure time when you visit because AUSTIN is a place you'll want to EXPLORE.

### SOFT 2006 COMMITTEE MEMBERS

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For meeting updates, go to

[www.soft-tox.org](http://www.soft-tox.org)

See SO-SOFT activity registration information and form in this issue of ToxTalk – for your Significant Other

# SOFT 2006 ANNUAL MEETING

October 3 – 7, 2006 (Tuesday through Saturday)  
AUSTIN, TEXAS - "Live Music Capitol of the World"

Austin Hilton Hotel

Host: Rod McCutcheon

## PRELIMINARY PROGRAM

### Sunday, October 1, 2006

- Pre-Conference Tours
- Satellite Organization Meetings

### Monday, October 2, 2006

- Pre-Conference Tours
- Satellite Organization Meetings
- Registration Opens (2:00pm – 6:00pm)

### Tuesday, October 3, 2006

- Continental Breakfast (7:00am – 8:30am)
- Registration (7:00am – 6:00pm)
- Workshops (7:30 am – 5:00pm)
- Lunch – on your own
- Board mtgs., Committee mtgs., Exams
- Dinner – on your own

### Wednesday, October 4, 2006

- Continental Breakfast (7:00am – 8:30am)
- Registration (7:00am – 6:00pm)
- Workshops (8:00am – 5:00pm)
- Lunch – on your own
- Board mtgs., Committee mtgs., Exams
- Exhibits Setup (noon– 5:00pm)
- Exhibits Open (6:30pm – 8:00pm)
- Welcoming Reception (6:30pm – 8:00pm)  
(Reception in Exhibit Hall)
- Elmer Gordon Forum (8:00pm – 10:00pm)
- Nite Owl Reception (10:30pm – 12:30am)

### Thursday, October 5, 2006

- SOFT Fun Run/Walk (6:30am – 8:00am)
- Continental Breakfast (7:00am – 08:30am)
- Registration (7:30am – 5:30pm)
- Exhibits open (9:30am – 3:30pm)
- Plenary/Scientific Session (8:30am – 10:00pm)
- Poster Session (10:30am – noon)
- Lunch with Exhibitors (noon– 1:30pm)
- Scientific Session (1:30pm – 3:00pm)
- SOFT Business Meeting (3:30pm – 5:30pm)
- "A Taste of Austin" Reception  
Exhibitor's Happy Hour (6:00pm – 7:30pm)
- "Explore Austin" (on your own; 7:30 - ??)

### Friday, October 6, 2006

- Continental Breakfast (7:00am – 8:30am)
- Registration (7:00am – 5:00pm)
- Exhibitor Feedback Meeting (8:00am – 9:30pm)
- Exhibits open (9:30am – 1:30pm)
- Plenary/Scientific Session (8:30am – 10:00pm)
- Poster Session (10:30am – noon)
- Lunch with Exhibitors (noon– 1:30pm)
- Exhibits breakdown (1:30pm – 3:30pm)
- Scientific Session (1:30pm – 3:00pm)
- Poster Session (3:30pm – 5:00pm)
- Presidents Reception (6:30pm – 10:30pm)

### Saturday, October 7, 2006

- Continental Breakfast (7:30am – 9:00am)
- Registration (7:30am – 9:00pm)
- Closing Scientific Session (9:00am – 11:00am)
- NSC Executive Board (11:30am – 1:30pm)
- NLCP Inspector Training (2:00pm – 6:00pm)
- Post-Conference Tours



See the insert for  
detailed workshop information

Photo to the left: 1978 SOFT Meeting – Niagara Falls, NY  
Seated – Tom Rejent, Meeting Host. Standing – Pat Monforte,  
unknown, Neal Reading. Last row - Elmer Gordon, Marina  
Stajic and Lenny Bednarczyk

# SOFT 2006 ANNUAL MEETING - AUSTIN, TEXAS - October 3-7, 2006

## REGISTRATION WORKSHEET

**On-Site registration only after September 22<sup>nd</sup>**

Name \_\_\_\_\_ Degree \_\_\_\_\_  
 Name to appear on badge \_\_\_\_\_  
 Title \_\_\_\_\_ Agency \_\_\_\_\_  
 Address \_\_\_\_\_ E-mail \_\_\_\_\_  
 Telephone \_\_\_\_\_ Fax \_\_\_\_\_  
 Accompanying Person(s) \_\_\_\_\_

### MEETING REGISTRATION

	Member	Non-Member	Qty.	TOTAL
FULL MEETING REGISTRATION ( <b>Late Fee Applies after 9/01/06</b> )	\$195.00	\$295.00	___	\$ _____
Includes: Admission to scientific sessions, Abstract Book, SOFT Pack, Coffee Breaks, Continental Breakfasts, Welcoming Reception, Luncheons, Happy Hours, Elmer Gordon Forum, and President's Reception				
ACCOMPANYING PERSON REGISTRATION ( <b>Available only with full meeting registration</b> ). Includes: All the above <u>except</u> Abstract Book...	\$195.00	\$295.00	___	\$ _____
enter shirt size online _____				
FULL-TIME STUDENT (Proof of full-time status required)	\$95.00	\$95.00	___	\$ _____
LATE-FEE (Applies after September 1 to EACH of above registrations)	\$100.00	\$100.00	___	\$ _____
<b>After September 22, 2006, only On-Site Registration is available.</b>				
ADDITIONAL TICKETS - Welcome , A Taste of Texas, & President's Receptions ( <b>tickets for non-registrants only available prior to 9/23/06</b> )	\$95.00	\$115.00	___	\$ _____

### ON-SITE REGISTRATION

(President's Reception and SOFT Pack <b>NOT</b> included)	\$395.00	\$495.00	___	\$ _____
Workshop #1: DUID Committee: Standardized Field Sobriety Tests – Principles and Practice. (Full day)- <b>Tues (8:00 – 5:00)</b>	\$120.00	\$150.00	___	\$ _____
Workshop #2: CE Committee: Opiate Fields Forever. (Full Day)- <b>Tues (8:00-5:00)</b> .	\$120.00	\$150.00	___	\$ _____
Workshop #3: Method Validation and Measurement: Uncertainty for Dummies ...and Smarties, Too. (1/2 day) <b>Tues (7:30-12:00)</b>	\$60.00	\$75.00	___	\$ _____
Workshop #4: Postmortem Pharmacokinetics: The Good, The Bad and The Ugly. (1/2 day)- <b>Tues (1:00-5:00)</b>	\$60.00	\$75.00	___	\$ _____
Workshop #5: Doping: Testing for Doping Substances and the Organization of Doping Control Efforts- (1/2 day) <b>Tues (8:00-12:00)</b>	\$60.00	\$75.00	___	\$ _____
Workshop #6: Excel Spread Sheet Design and Basic Statistics. (Full day) <b>Wed (8:00-5:00)</b>	\$120.00	\$150.00	___	\$ _____
Workshop #7: Addiction and Pain Management for Toxicologist.... (1/2 day) <b>Wed (8:00-12:00)</b>	\$60.00	\$75.00	___	\$ _____
Workshop #8: New Antidepressants & Antiepileptics.... (1/2 day) <b>Wed (1:00-5:00)</b>	\$60.00	\$75.00	___	\$ _____
Workshop #9: CE Committee: How Does Your QA/QC Program Measure Up? (1/2 day) <b>Wed (8:00-12:00)</b>	\$60.00	\$75.00	___	\$ _____
Workshop #10: The Application of Hair as an Alternative Matrix for Forensic Applications. (1/2 day) <b>Wed (1:00-5:00)</b>	\$60.00	\$75.00	___	\$ _____

**ID BADGE WILL BE REQUIRED FOR ALL FUNCTIONS.**

**TICKET REQUIRED FOR PRESIDENT'S RECEPTION.**

**TOTAL** \$ \_\_\_\_\_

**LATE FEE** applies for all registrations received after **Friday, September 1, 2006**. Deadline for registration online at <http://www.soft-x.org> is **Friday, September 22, 2006**. **Payment on the SOFT Registration website**, a secure site, which accepts the most major credit cards or payment through routing of checks drawn on a US bank or International Bank.

**Refund policy:** Refunds will be honored upon written request prior to 09/01/06 minus a \$100 fee. **NO refunds after 09/01/06.**

## Letter to the Editor

Dear Sir:

In the 1<sup>st</sup> Quarter 2006 issue of *ToxTalk*, you published a letter from Nicola Sagerman and Dwight Flammia regarding alprazolam concentrations, in which the authors cited the 6<sup>th</sup> Edition of *Disposition of Toxic Drugs and Chemicals in Man* by R. C. Baselt and referred to postmortem alprazolam blood concentrations from 7 cases of apparent suicide with an average value of 0.55 mg/L (i.e., 550 ng/ml). As we all know, Baselt is a valuable reference for toxicologists, but I wish to point out some of the dangers of using data published in Baselt as a standard against which to determine therapeutic, toxic and lethal blood levels of drugs.

At the February 2006 meeting of the AAFS, Dr. Robert Powers and I presented a paper entitled, *Clinical vs. Forensic Toxicology – A Comparison of Methods for Case Evaluation*, in which we discussed alprazolam and blood concentrations published in Baselt specifically. If you look back to the 4<sup>th</sup> Edition of Baselt, you will see that 5 cases of apparent suicide were presented, and the postmortem blood concentrations of alprazolam ranged from 122-390 ng/ml, with a calculated average of 236 ng/ml. Starting with the 5<sup>th</sup> Edition of Baselt, two more cases were added including one in which a level of 2100 ng/ml was reported. The published range then changed to 122-2100 ng/ml and the “average” rose more than two-fold from 236 ng/ml to 550 ng/ml, which was cited by Sagerman and Flammia in their letter in *ToxTalk*. The clinical pharmacokinetics of alprazolam, as presented in the “Blood Concentrations” section of Baselt, indicate relatively linear pharmacokinetics through the range of clinical doses of 9 mg/day. A dose of 9 mg/day would be expected to reach steady-state levels of ~100 ng/ml, approximately 1/20<sup>th</sup> of the 2100 ng/ml level. Indeed, Amanda Jenkins, Ph.D., the author of the paper reporting the 2100 ng/ml level stated that the reason she published the case was because that was the highest level she had ever seen (personal communication).

It is not uncommon for forensic experts to have relied on data from Baselt and failed to interpret the significance of the data correctly. This happened in the Ted Binion case, and was the reason the jurors failed to convict Binion’s murderers in the re-trial. (1) In my opinion, the 2100 level is a gross outlier, and should be labeled so by the editors of Baselt, and should not be incorporated in the average, so as to avoid

further problems in interpretation. In the case reported by Sagerman and Flammia, it made no difference because the level they reported, 820 ng/ml, was higher than the average reported in either the 4<sup>th</sup>, (5<sup>th</sup>), or 6<sup>th</sup> Edition of Baselt, and served to demonstrate how much tolerance an individual can develop to the cardio-respiratory depressant effects of potent triazolobenzodiazepines.

It is also important to keep in mind that most data published in Baselt constitute “descriptive statistics” based on anecdotal case reports in which blood levels from acute ODs, chronic dosing regimens, and mixed drug abuse are all pooled together and treated as a homogeneous group. Blood samples could have been drawn at any stage of absorption, distribution, metabolism or excretion, and sampling sites could have been from any of four cardiac chambers or from peripheral vessels, and postmortem distribution may well have taken place in many instances. Pooling such heterogeneous data and calculating an average can be very misleading to the reader and presents an array of data which can be easily misinterpreted.

Baselt serves as a fine repository to archive blood level data. However, forensic scientists involved in the interpretation of post-mortem blood levels need to pay careful attention to the blood concentrations achieved during typical clinical administration in order to obtain a meaningful quantitative indicator of blood levels achieved during therapeutic dosing with which to compare toxic and lethal drug blood concentrations. As noted earlier, levels presented in Baselt provide results of individual case reports, and ranges, but using an average calculated from non-homogeneous data has little value in establishing a firm, unequivocal quantitative level which could be regarded as toxic or lethal. This is evidenced by the case reported by Sagerman and Flammia, since the person with the reported level of 820 ng/ml was alive, not dead, despite Baselt’s published level of 550 ng/ml as “the average of the fatal cases.”

I write to you to share my concerns, and hope that toxicologists will review the data in Baselt more critically and recognize the limitations involved in the interpretation of uncontrolled, heterogeneous blood level data bundled together like vegetables in a produce market.

Finally, you will note that I have used the units of ng/ml in order to present the alprazolam blood levels in whole numbers, rather than having used mg/L and expressed the values as a decimal. Although the international community favors the use of

mg/L, communicating in decimals in the clinical arena has proven to be a major source of 10-fold prescription dosing errors as in 1.0 mg alprazolam being mistaken for 10 mg, because the decimal point “dropped out” or was lost during transcription, photocopying or faxing. I ask all scientists to reconsider the practice of using decimals when whole numbers present less potential for error.

References Benjamin, David M.: *The Death of Ted Binion: Drug OD/Suicide or Murder by Poisoning – When the Average Means Too Much*. (Presented at: American Academy of Forensic Sciences, Last Word Society, Las Vegas, NV, February 19, 2004) Published in the 2004 Proceedings of the AAFS.

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## SOFT HOSPITALITY - SWEET

Long before SOFT achieved the financial solvency it enjoys today, the traditional SOFT hospitality suite/event was often the president’s room, and the refreshments were smuggled in through the back door (photos - 1985 AAFS meeting)



Mike McGee and co-conspirators

Chip Walls, the official “SOFT Mixologist,” and Sally Watford enjoy the camaraderie.



**SO-SOFT PLANNED ACTIVITIES**

OCTOBER 4-7, 2006

AUSTIN, TEXAS

Saddle up, SO-SOFT (Significant Others – SOFT) cowgirls and cowboys! Susie McCutcheon has put together some great activities at terrific prices for y'all during the SOFT meeting in Austin. Let's hear a big Texas YEE-HAW!!!

**Wednesday, October 5, 2006 8:30 am – 5:00 pm:** Leisurely drive through the Texas hill country with stops at the famous Lady Bird Johnson Wildflower Center in Austin, lunch on the river in quaint town of Wimberley, and afternoon shopping at the incredible Tanger and Prime Outlet Malls in San Marcos. You spend as much \$\$\$ as you want at the Malls! Price includes Center entry fee and round-trip minibus transportation. All ages \_\_\_\_\_ reservations @ \$45 each = \$\_\_\_\_\_

**Friday, October 7, 2006 10:00 am – 3:00 pm:** A couple of scenic stops in Austin for pictures en route to The Oasis Restaurant on Lake Travis for lunch and shopping. What a view overlooking the lake! Gift and garden shops. Price includes round-trip minibus transportation only. All ages. \_\_\_\_\_ reservations @ \$30 each = \$\_\_\_\_\_

Your name \_\_\_\_\_ e-mail \_\_\_\_\_  
SOFT member's name \_\_\_\_\_ your phone \_\_\_\_\_

Make your check payable to: "SOFT" and mail to SO-SOFT, 7330 Ashton Place, San Antonio, TX 78229

**No checks will be accepted after September 1**

Additional reservations at the meeting are not guaranteed and on a first-come, available space basis. If an event is cancelled due to not meeting the minimum 20 reservations, refunds will be made after the SOFT meeting.

Contact Susie McCutcheon, SO-SOFT Austin Activities Coordinator at 210- 979-9878 if you have questions. ☎

**From the Editor's Desk –**

*Joseph R. Monforte, Ph.D., DABFT, ToxTalk Editor*

I want to thank all of the contributors to this issue of **ToxTalk**. There are several stimulating articles that, hopefully, will encourage future submissions/discussions.

It is clear that the interpretation of postmortem blood concentrations remains a complex and challenging issue. Baselt's book has been a valuable resource for decades; however, repeating the limitations and concerns of simply applying these data to any death are worth repeating. It should also be remembered that others, i.e. pathologists and attorneys, also have access to this resource. This creates another quandary since they are more likely to accept the concentrations presented without considering possible interpretive limitations. ☎

<<< Editor Monforte and Jerry Kananan at the 1985 SOFT Hospitality Suite during the AAFS meeting.

**CALL FOR TOXTALK MATERIAL**

**ToxTalk dedicated e-mail address: SOFTToxTalk@aol.com**

Specific items should be sent to the appropriate **ToxTalk** personnel as noted below.

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All other items should be sent to **SOFTToxTalk@aol.com**

**Mailing address:** 5304 Widener Strip, Midland, TX 79707. (Do NOT send items to the SOFT Administrative Office!)

**Please send items for the next issue of ToxTalk before JULY 15, 2006 – FIRM!**

# DRUGS IN THE NEWS



Send items of interest to:

*Drugs in the News* Editor Dwain Fuller, BS, D-FTCB, TC-NRCC  
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Thanks to everyone who called and e-mailed to welcome me to **ToxTalk**. I do have one little note of correction, however. I actually have been a member of SOFT since 1991. So to all of you who were feeling a bit younger, sorry.

## Lethal Injection: Painful Fact or Junk Science?

By Dwain Fuller, BS, D-FTCB, TC-NRCC

Original news item submitted by: Troy Merrick, Associate Toxicologist & QA/QC Coordinator, Cuyahoga County Coroner's Office Toxicology Laboratory, Cleveland, Ohio

In the April 16<sup>th</sup>, 2005 issue of **The Lancet**, Leonidas Koniaris, Teresa Zimmers, David Lubarsky (University of Miami Medical School, Anesthesiology Department), and Jonathan Sheldon co-authored a Research Letter titled, *Inadequate anaesthesia in lethal injection for execution*. In this letter the authors' challenged whether lethal injection meets the requirements of the eighth amendment prohibiting "cruel and unusual" punishment. The conclusions of this letter were quickly picked up by the media and, to date, have influenced judicial decisions in several states.

While it is unlikely that any of the readers herein are unfamiliar with the process of lethal injection, I will review. Typically, an IV line is first established. When the order is given, the condemned is administered sodium thiopental to induce a deep sleep. Doses as high as 5 grams, 50 times what is often used in surgical anesthesia, are not uncommon. After the condemned is unconscious, a saline solution is used to flush the IV line before the administration of pancuronium bromide or another paralyzing agent. The paralyzing agent acts upon the diaphragm to stop the breathing. The IV line is again flushed with saline. Finally, in most states, potassium chloride is administered to stop the heart.

The foundation of the authors' argument is that based on postmortem blood concentrations of thiopental, obtained from executions in Arizona, Georgia, North Carolina, and South Carolina, "*most of the executed inmates had concentrations (of thiopental) that would not be expected to produce a surgical plane of anaesthesia, and 21 (43%) had concentrations consistent with consciousness*". The authors go on to argue "*that it is possible that some of these inmates were fully aware during their executions*".

There are several disturbing aspects to these assertions. First, the article was published as a "Research Letter" rather than a peer-reviewed article. Secondly, one of the authors, Jonathan Sheldon, is an attorney who represents inmates sentenced to death. And third, the fact that **The Lancet** published a decidedly anti-capital punishment editorial in the same issue as the Research Letter, citing the conclusions as if they were settled fact. Probably the most troubling aspect of this whole episode, however, is the cavalier, and likely flawed, application of post-mortem drug concentrations to antemortem clinical interpretations without regard for factors such as post-mortem redistribution.

At one point the authors mention the possibility of postmortem redistribution: "*Extrapolation of antemortem depth of anaesthesia from post-mortem blood thiopental concentrations is admittedly problematic. To estimate concentrations of thiopental in the brain from concentrations in the blood in life, details of the rate and duration of drug administration are needed. Unfortunately, such details are usually not specified in lethal injection protocols. Furthermore, no data about post-mortem distribution of thiopental are available.*" Then the authors, inexplicably, cite the wide distribution of thiopental concentrations found in the specimens, resulting from "*nearly identical (execution) protocols*", as simply being due to the lack of expertise of the "*relatively unskilled executioners*" rather than being increasing evidence of potential post-mortem redistribution. By the very next paragraph, the authors seem to have dismissed the possibility of post-mortem redistribution altogether and proceed with their argument. That paragraph begins with the words, "*If post-mortem thiopental concentrations are taken as a surrogate marker of concentrations in the blood during life...*"

In September 2005, most likely in response to criticism of the methods and conclusions of Koniaris, et al, **The Lancet** published three letters with the comments of seven authors. The authors, Jonathan Groner, Mark Heath, Donald Stanski, Derrick Pounder, Robyn Weisman, Jeffrey Bernstein, and Richard Weisman, were all uniformly critical of the work. Space considerations prohibit a full discussion of the criticism herein, but I will detail a few of the observations.

One author pointed out that the specimens were not obtained immediately after death, but that most specimens were obtained 12 or more hours after death. The author also challenged Koniaris et al's erroneous implication that the fact that thiopental is reported to be stable in stored human plasma somehow negated any argument of post-mortem redistribution. Several of the reviewers argued that the high lipid solubility of thiopental as well as the lack of equilibrium could provide a mechanism for rapid post-mortem redistribution of thiopental from the blood to the surrounding tissues.



In one of the criticisms the authors argue that "the distribution of thiopental in a dying prisoner is likely to be very different from its distribution in a ventilated and oxygenated patient" due to cellular hypoxia and metabolic acidosis. As evidence, the authors cite an interesting study in a dog model, where due to the inhalation of carbon dioxide, the arterial pH decreased from a mean value of 7.35 to a mean of 6.90, resulting in an average 40% decrease in the plasma thiopental concentration. It is hypothesized this was due to the increase in the non-ionized fraction of the drug, making it more lipophilic and increasing its partitioning into tissue.<sup>1</sup>

As a personal observation, Disposition of Toxic Drugs and Chemicals in Man references four thiopental anesthetic deaths where inadequate ventilation was maintained.<sup>2</sup> By the criteria of Koniaris, et al, none of these thiopental concentrations would be considered to rise to a "surgical plane of anaesthesia" and one individual would have been "fully aware" during her death, a rather ironic conclusion.

Clearly, more research is needed to address the concerns posed by this Research Letter. However, while everyone is free to form their own political opinion about capital punishment, as forensic toxicologists we should remember that our scientific opinions must withstand the scrutiny of our science.

1. Brodie BB, Mark LC, Papper EM, et al. *The fate of thiopental in man and a method for its estimation in biological material.* **J Pharmacol Exp Therap** 1950; 98: 85-96
2. Campbell JE. *Deaths associated with anesthesia.* **J For Sci**; 5:501-549, 1960
3. *A UM anesthesiologist finds himself in the midst of the controversy over whether lethal injections cause pain.* Carol Marbin Miller, **Miami Herald**. cmarbin@MiamiHerald.com or <http://www.miami.com/mlid/miamiherald/news/13713512.htm> ☹

## "DRUGS IN THE NEWS" INCENTIVE:

A prize will be bestowed to someone submitting appropriate articles for the *Drugs in the News* section of **ToxTalk** between January 1 and July 7, 2006. Newly appointed *Drugs in the News* Editor Dwain Fuller will determine the winner and present the prize at the 2006 SOFT meeting in Austin.

The prize: A hand-held massager with heat, swivel head and six interchangeable attachments to give your aching muscles after hours at your PC identifying items for *Drugs in the News*! ☹

**2006 MEMBERSHIP DIRECTORY** is included with this issue of **ToxTalk**. Please check your contact information. Contact the Administrative Office for any changes.

## EDUCATIONAL RESEARCH AWARDS

*Excerpt from the 12/12/80 meeting of the SOFT Board of Directors:*

### EDUCATION AWARD (?):

*Since the award has never been given an official title, no one really knows what it should be called.*

*The question of whether an award committee should be appointed was raised. The question was never answered. However, since many questions have been raised as to the title of the award, the amount of the award, the purpose of the award, guidelines for application of the money, renewability of the disbursement, and who shall decide upon the recipient, perhaps a committee should be formed.*

The ERA was originally supported by donations, primarily from vendors. A number of years ago, the SOFT Board decided to create an endowment-type account with the goal that the interest received would support the awards. Today, the awards (ERA and YMSA) are funded by the establishment of a specific account sustained by meeting profits and interest.

The Awards Committee, chaired by Dr. Philip Kemp, is currently reviewing applications and will announce ERA (graduate students) and YMSA (bench scientists) recipients for 2006 in the next issue of **ToxTalk**. ☹

SOFT members John McGuire, Joe Monforte, Tom Regent, Nick Hodnett, ?, Joe Balkon, and ? attend the 1978 AAFS meeting.



# HAPPY 30TH ANNIVERSARY, TOXTALK!!

## TOXTALK AND SOFT – A LOOK BACK AS TOXTALK BEGINS ITS 30<sup>TH</sup> YEAR! Part II

Submitted by Patricia Mohn-Monforte, ToxTalk Publisher

In the 1980 September *President's Message* Leonard Bednarczyk noted: "We are celebrating our 10<sup>th</sup> annual meeting. We first met at the Nassau County Office of the Medical Examiner in October of 1970. Abe Freireich was the host and we called it an interim meeting (between AAFS meetings.). We slowly formalized the organization and today we have goals and objectives which represent only the forensic toxicologists. No other organization serves only that group. As a forensic toxicologist, shouldn't you be supporting the organization? Keep SOFT growing (bring in some new members) so that we can continue to prosper and serve the interests of the forensic toxicologist." Dr. Bednarczyk is the only member to be elected to serve a second term; he was also President in 1976. I remember that no one stepped forward for the 1980 position, and Lenny's friends talked him into it. That same year, ToxTalk changed its front page. John Hebb, Jr., received the first ERA for "Forensic Interpretation of Tricyclic Antidepressant Drug Deaths." Roche was instrumental in raising the \$500 which was offered to support research. The SOFT annual meetings had been casually structured, but the 1980 CSFS/SOFT meeting required the President to wear a tuxedo! In all, there have been three joint meetings with the Canadians (1975, 1980 and 1991) which offered an opportunity to meet with a much larger group, avoiding the burden of presenting a meeting with limited resources, and guaranteeing SOFT would not take a financial loss. Treasurer Joseph Balkon would later report, "The treasury is healthy due to the generosity of the Canadians in sharing the income from the Toronto meeting."

Formal papers to be presented at the 1981 meeting in Chicago included these topics: *Applications of GC Dual Retention Systems for the Qualitative Analysis of Drugs in Biological Specimens; Determination of Pentazocine and Tripelannamine (T's & Blues) in Postmortem Blood by GC with use of Nitrogen Phosphorous Detectors; Rapid HPLC Method for the Quantitation of Haloperidol (Haldol) in Human Plasma; The Analysis of Fresh and Fixed Tissue Specimens for the Presence of Quaternary Amine Neuromuscular Blocking Agents; HPLC Method for Quantitating Barbiturates; and Determination and Significance of Cannabinoids in Blood and Urine, and Toxicology of PBC's.* Informal discussion would be encouraged one evening on specific topics by specific presenters – the precursor to the Elmer Gordon Open Forum. Registration was \$50, including the reception and banquet, and a workshop, "Recent Advances in TLC," was offered for \$10. There were 13 exhibit booths, each paying \$350. The annual meeting minutes from that year reported a general budget of \$2,498 and \$1,204 in the scholarship fund, a formal directory was produced, and annual dues were \$25.

The 1982 joint MAAFS/SOFT meeting in Roslyn, VA, included three workshops: *Thin Layer Immunoassay, Capillary Gas Chromatography, and Concepts in Pharmacokinetics in Forensic Toxicology.* Presentation topics included forensic pharmacokinetics of alcohol; propoxyphene and chlorthalidone fatality; digoxin cases; DUI-ethylchlorvynol; passive marijuana smoke inhalation; LSD in body fluids; TL immunoassay for opiates in blood; identifying basic drugs in urine by dual fused silica capillary column GC; LC analysis of thiopental in blood and tissues . . . **ToxTalk** Editor Jesse Bidanset was "still begging" for contributions to the newsletter, a tradition that would be carried on by future editors. Dr. Bidanset passed on the **ToxTalk** baton after pioneering the creation of the publication in 1977. (Only the Sept. issue of ToxTalk is in our files, so available information is limited.)

In 1983, **ToxTalk** became a professionally typeset, 4-page, quarterly publication under new editors Yale Caplan and Marina Stajic. SOFT was becoming more organized and formal with sixteen committees/subcommittees, such as a formal ERA Committee, Meeting Site Selection and Guidelines, and Publicity. Another SOFT/JAT Special Issue was published and available at the 1983 meeting for the first time. The annual meeting in Detroit boasted a record-breaking 120 in attendance with 85 registrations for the *CG Capillary* and *Lab Management* workshops and 10 exhibitors. It was the first meeting utilizing a contracted consultant, Pat Monforte. The abstracts from the 1983 SOFT meeting in Detroit were published in **ToxTalk**.

In its 14<sup>th</sup> year, SOFT achieved tax-exempt status. Also in 1984 the ERA, which heretofore had awarded a single ERA annually, announced two recipients. The need for an Executive Coordinator was created initially to establish continuity, document and implement policies, coordinate meetings, and provide administrative support, and Patricia Mohn-Monforte began her nearly 25-year professional association with SOFT. Her duties soon expanded, including the production and distribution of **ToxTalk**. Profiles of election candidates first appeared in ToxTalk. President Monforte initiated the policy of the vice president overseeing committees. Dr. Richard Phillips distributed a letter soliciting ERA funds from corporate benefactors. At the annual meeting in St. Louis, bylaws changes were recommended by Dr. Dubowski's Bylaws Committee with a lot of discussion following. In June of 1984, the treasury balance was \$2,657 with \$1,972 allocated to the ERA fund.☺

Tox Talk

# Newsletter

News for and about Members of the Society of Forensic Toxicologists



SOFT members Joe Monforte and Irving Sunshine attempt to address the world's forensic toxicology issues during the 1978 AAFS meeting in St. Louis.



Newsletter postmarked July 24, 1981



# CALL FOR CASE NOTES:



Section Editor: Matthew Barnhill, Ph.D.

[mbarnhilljr@worldnet.att.net](mailto:mbarnhilljr@worldnet.att.net)

## Five Cases of D-amphetamine Positive Urines Resulting from Ingestion of "Brazilian Nutritional Supplements" Containing Fenproporex

John Jemioneck, Ph.D., Thomas J. Bosy, Ph.D, MSC, USN; Aaron Jacobs, Ph.D., MS, USA; Justin Holler, Joseph Maglulio and Christopher Dunkley, Ph.D., MSC, USN, Armed Forces Institute of Pathology, 1413 Research Blvd, Rockville, MD 20850.

**Case History:** Five cases are presented in which military members were identified as positive for presence of amphetamines during routine urinalysis testing. Individuals denied illicit drug use. During review of medical records and interviews, individuals indicated use of "Brazilian nutritional supplements" as an adjunct in weight loss. Urine samples and bottles of nutritional supplements were forwarded to the AFIP for analysis to ascertain if the supplements could be the source of the amphetamine detected.

**Toxicology Analysis: Case #1: Capsulas Emagrecimento Natural A & B.** 13 April 2004, male tested positive for presence of amphetamines in urine by immunoassay and GC/MS at a concentration of 1,988 ng/mL. Individual admits to taking a weight loss supplement his mother brought back from Brazil. Capsule A (yellow) contains a white powder and identified to contain fenproporex by GC/MS. Capsule B (orange) contains a greenish-brown powder identified to contain fluoxetine by GC/MS. Isomeric analysis of original urine sample shown to contain 51.4% d-amphetamine along with fenproporex and fluoxetine.

**Case #2: Emagrece Sim Capsules 1 and 2.** 9 February 2005, individual tested positive for presence of amphetamine in urine by immunoassay and GC/MS at a concentration of 7,630 ng/mL. Individual admits to taking herbal supplements and provided bottles containing the capsules. Capsule 1 (yellow) identified to contain fenproporex by GC/MS and capsule 2 (orange) identified to contain fluoxetine by GC/MS. Isomeric analysis of the original urine sample shown to contain 46.5% d-amphetamine, along with fenproporex and fluoxetine.

**Case #3 Emagrece Sim Capsules 1 and 2.** August 2005, female tested positive for presence of amphetamine in urine by immunoassay and GC/MS at a concentration of 1,413 ng/mL. Individual provided bottles of herbal supplement. Bottles of Emagrece Sim 1 and 2 capsules were submitted for analysis. Capsule 1 (yellow) identified to contain fenproporex by GC/MS and capsule 2 (orange) identified to contain fluoxetine. Isomeric analysis of original urine sample shown to contain 44.7% d-amphetamine along with fenproporex and fluoxetine.

**Cases #4 - #5 Herbathin Brazilian Nutritional Supplement:** Individual was identified twice for presence of amphetamine by immunoassay and GC/MS. Individual admits to taking a Brazilian diet pills distributed by company called Herbathin. First urine sample was collected 04 August 2005 showed presence of 2,177 ng/mL amphetamine of which 46% was d-amp. The second urine sample was collected 18 August 2005 showed presence of 1,914 ng/mL of amphetamine of which 53% was d-amp. In addition, fenproporex and fluoxetine were detected in the urine by GC/MS. Analysis of the Herbathin capsule (yellow capsules contained fenproporex) and the orange Herbathin capsules contained fluoxetine.

**Discussion:** FDA warning (1) posted 13 January 2006 reported occurrences of amphetamine positives resulting from ingestion of "Brazilian Nutritional Supplement". In the four cases encountered, the presence of the parent compound fenproporex was identified in the (yellow) capsules as the source of the racemic amphetamine concentration detected in the urine (2). In 4 of the 5 Case Studies reported above, the amphetamine concentration detected in the urine was below 2,500 ng/mL and averaged 48% +/-3% d-amphetamine. In addition, the presence of fenproporex and fluoxetine in urine was identified by GC/MS.

### References:

1. FDA News P06-07, January 13, 2006. *FDA Warns Consumers about Brazilian Diet Pills Found to Contain Active Drug Ingredients. Emagrece Sim and Herbathin Dietary Supplements May be Harmful.*
2. J.T. Cody. *Precursor Medications as a Source of Methamphetamine and/or Amphetamine Positive Drug Testing Results.* J. of Occupational and Environmental Medicine 44(115) 435-450, 2002.

Case Notes continued next page . . .

**PLEASE SUBMIT YOUR CASE NOTES TO DR. BARNHILL BEFORE JULY 15!!**

Early deadline to accommodate meeting dates.

THANK YOU.

# Methanol Toxicity Fatality

Jacquelyn Orlandino, BS, BA, MS; Forensic Toxicologist, Georgia Bureau of Investigation-Division of Forensic Sciences, Decatur, GA

The deceased was a 37-year old male with an alleged history of ethanol abuse; it was stated that he lacked the funds with which to buy alcohol and would consume whatever he could find. He was last known to be alive and sleeping early in the morning and was found unresponsive at an unknown time later in the day with a nearly empty gallon of windshield wiper fluid. Resuscitation was unsuccessful and toxicology findings included high concentrations of methanol in the blood, and no ethanol present although the coroner indicated the wiper fluid was known to contain ethanol. Additional analysis of the urine and vitreous specimens yielded the same results; very high concentrations of methanol and no ethanol detected. All biological samples were then analyzed using the sodium borohydride reduction method, which consisted of the addition of 10  $\mu$ L sodium borohydride to the sample. Two brands of windshield wiper fluid were also diluted and analyzed. All analyses were performed using headspace gas chromatography with flame ionization detection.

Table 1. Concentration of Methanol Present in Biological Samples Before and After Sodium Borohydride Reduction

	No Reduction (g%)	Reduction (g%)
Blood	0.492	0.500
Urine	0.680	0.724
Vitreous Fluid	0.612	0.600
Liver	0.270	0.408

The biological samples were consistent with the presence of only methanol with the exception of the liver; the concentration increased after sodium borohydride reduction from 0.135 g% methanol to 0.204 g% methanol (diluted by half), which indicated the possible presence of some formaldehyde in addition to methanol in the liver tissue. Metabolism of methanol occurs in the liver, thus some formaldehyde, a metabolite of methanol, would be expected.

A fatal methanol dose has not yet been established and can be anywhere from 15 mL to 100 mL or higher, depending on the concentration of the solution and factors such as the subject's health and weight. Windshield wiper fluids tend to have very low concentrations of methanol (2-6%), but can contain as much as 40% methanol. Forensically, the dose ingested (both amount and concentration) and the time since ingestion are very important when determining a cause and time of death.

Table 2. Concentration of Methanol in Windshield Wiper Fluid Dilutions

Wiper Fluid (1) Dilutions (mL:100mL)	Methanol Concentration (g%)	Wiper Fluid (2) Dilutions (mL:100mL)	Methanol Concentration (g%)
2.0:100	0.0288	0.5:100	0.0258
3.0:100	0.0593	1.0:100	0.0523
5.0:100	0.0752	2.0:100	0.1060
8.0:100	0.1265	3.0:100	0.1607
10.0:100	0.1511	5.0:100	0.2727

Because not all windshield wiper fluids have the same concentration of methanol and the labels rarely include the actual content, treatment options may be limited when presented with methanol toxicity and no other information. Hemodialysis and infusion of ethanol are still the best course if the toxicity is diagnosed in time, but when the subject is found unresponsive after an unknown period of time, as in the case presented in this report, it may be too late for treatment and analyses will need to be performed to determine a cause of death. Without ingredients clearly labeled on the bottles, there may also be confusion as to the cause of the toxicity. Forensically, the alcohols can be distinguished from one another by using headspace gas chromatography and a correct cause of death can be determined based on the concentration of methanol found. The availability of multiple specimens, such as vitreous fluid or liver, can also corroborate the analysis and rule out considerations such as contamination or embalming with formaldehyde.

## References:

1. E. Skrzydlewska. *Toxicological and Metabolic Consequences of Methanol Poisoning*. **Toxicology Mechanisms and Methods** 11:277-293 (2003).
2. AJ Paine and AD Dayan. *Defining a Tolerable Concentration of Methanol in Alcoholic Drinks*. **Human and Experimental Toxicology** 20:563-568 (2001).
3. P. Hantson, MD, PhD, V. Haufroid, and P. Wallemacq. *Formate Kinetics in Methanol Poisoning*. **Human and Experimental Toxicology** 24:55-59 (2005).
4. M.A. Kostic, MD and R.C. Dart, MD, PhD. *Rethinking the Toxic Methanol Level*. **J Toxicology** 41-6:793-800 (2003).
5. R. Elwell, PharmD, P. Darouian, PharmD, G. Bailie, PharmD, PhD, G. Eisele, MD, and M. McGoldrick, MD. *Delayed Absorption and Postdialysis Rebound in a Case of Acute Methanol Poisoning*. **The American Journal of Emergency Medicine** 22-2:126-127 (2004).
6. B. Foley, MD and I. Rogers, MD. *Fatal Methanol Poisoning Following Home Distillation of Methylated Spirits*. **Emergency Medicine** 11:287-289 (1999).

Case Notes continued next page . . .

7. T. Gossel, PhD and J.D. Bricker, PhD. **Principles of Clinical Toxicology**. New York: Raven Press. 65-71 (1984).
8. R.C. Baselt and R.H. Cravey. **Disposition of Toxic Drugs in Man**, 5<sup>th</sup> Edition. Foster City: Chemical Toxicology Institute. 383-385, 532-534 (2000).

## Forensic Therapeutic Drug Monitoring in a Patient (S.M.) with Chronic Hypertension

Donald R.A. Uges Ph.D., *Clinical and Forensic Toxicologist – Pharmacologist. Groningen The Netherlands*

Patient S.M. (65 yrs, a former president) is imprisoned at the jail of the Yugoslavia tribunal in The Hague. Since months he was suffering from serious high blood pressure, in spite of a strong prescribed antihypertensive medication. He had to take his medication under supervision every day.

The prison doctor in attendance did not understand why patient's pressure did not react on the high dose medication, which normally is given to this kind of patient. He consulted my colleague Daniel Touw Ph.D. hospital pharmacist in The Hague, for a pharmacological advise. Dr Touw did extensive search, measured his drug levels and his CYP status. He wrote a comprehensive report. The conclusion of this report was not accepted by the legal adviser, therefore he asked for a second opinion. So the Tribunal has sent this report to me. I came to the same conclusion as Daniel Touw. In order to protect suspect's privacy I can't tell you his total medication, the measured drugs serum levels and the exact contents of both reports.

Anyhow, our mutual conclusion was that this man was probably taking drugs which are strong enzyme inducers for several CYP enzymes (3A4, 2C19, and or 2C9) and P-gP-pump. We thought immediately about rifampicin, an anti-tuberculosis antibiotic which is one of the strongest enzyme inducers available. In the beginning Touw and I did just think of this drug because it's pharmacokinetic properties. However nobody mentioned this drug to us. In the Netherlands rifampicin is only used in special TBC-clinics with isolated patients and not generally in a jail. It is also given against pruritus at end stage liver failure.

I am the head of a hospital-pharmacy laboratory for toxicology and therapeutic drug monitoring where more than 350 different drugs can be quantitatively determined in plasma ([WWW.laboratoriumwijzer.umcg.nl](http://WWW.laboratoriumwijzer.umcg.nl)), under which rifampicin on regular basis (QA: ISO 9001, 2000). Therefore Dr Touw sent us a blood sample for rifampicin monitoring. We found a so-called therapeutic level of rifampicin and its metabolite desalkylrifampicin, using a validated LC-MS-MS method.

Adding rifampicin to his prescribed medication was very smart. The dose was enough for a optimal enzyme induction for fast metabolizing his regular antihypertensive medication and the dose was not too high, otherwise the red sweat and tears might have warned the people around him. Rifampicin isn't normally a part of a general toxicological screening in most countries as it is not very intrinsic toxic.

However S M's wife and friends were blaming the Dutch healthcare system, the doctors and the Yugoslavia tribunal that they were not able to treat a hypertensive patient adequately. So they demanded that he be sent to Russia for receiving the required medical treatment (without rifampicin I suppose). *I consider rifampicin as a one-way ticket to Moscow in this case.* A suspect with a three-room jail and many visiting advisers knows what to do.

Now the patient is dead. The Dutch National Institute for Forensic Sciences (NFI, The Hague) did a post mortem investigation. They came to the conclusion: S M died a natural death by a heart attack Taking into account his age and weak health, his long existing hypertension seems to me the indirect cause of death.

In this kind of communications it is difficult to decide which information is open and which is confidential. Everyone and every country are using their own rules. As soon as his legal adviser mentioned the use of anti-TBC medication during a TV interview, we decided to make public that we really did find rifampicin in S.M's blood. Our goal was to stop the speculations about the use of this drug and also the allegations against the Dutch medical system and treatment.

*(Editor's note: This case note had very limited editing.)*

## A Venlafaxine Overdose

Ernest D. Lykissa, Ph.D., *Expertox.com, Deer Park, TX*

The subject, a 57-year-old female, was found dead. A general toxicology screen for drugs and poisons revealed venlafaxine in the blood at a level of 15.8 mg/L. As this was the only significant finding, the cause of death was determined to be an overdose of venlafaxine. ☹

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**SALARY SURVEY UPDATE:** There has been interest but no commitment to prepare and process a current salary survey. If anyone would like to undertake this task, contact [SOFTToxTalk@aol.com](mailto:SOFTToxTalk@aol.com). Remember, previous surveys have been an effective tool in raising salaries. Meanwhile, SOFT member Tony Merrick suggests going to [www.asclid.org/index.htm](http://www.asclid.org/index.htm) – or – [www.mlo-online.com/articles/0306/0306salary\\_survey.pdf](http://www.mlo-online.com/articles/0306/0306salary_survey.pdf) ☹

# EXTRAPOLATIONS Section Editor: Donald Kippenberger, Ph.D. (donald.kippenberger@amedd.army.mil)

Submitted by Frank Davis, Reference & Education Services, Medical Center Library, University of Kentucky Email: [fdavi2@email.uky.edu](mailto:fdavi2@email.uky.edu) Web: <http://www.mc.uky.edu/MedLibrary>

**HealthWeb**, a nationally recognized project, provides links to subject-specific, evaluated information resources on the World-Wide Web. Funded in part by National Library of Medicine, HealthWeb is managed by librarians and information professionals at leading academic medical centers in the Midwest. Each HealthWeb page integrates educational information so the user has a one-stop entry point to learn skills and use material relevant to their discipline. The HealthWeb search engine allows cross-disciplinary key word searches for all subjects.

Information specific to the specialty of Toxicology includes links to:

- Electronic books and journals in full-text format
- Over 20 databases containing factual information from government and university sites.
- Web sites for medical societies and government agencies
- Links to Toxicology list servers and current awareness sources.

HealthWeb's value as a tool to facilitate Internet access to health-related resources has been recognized by organizations and publications such as: *JAMA*, *National Library of Medicine*, *Academic Physician and Scientist*, *Chronicle of Higher Education*, *Fortune*, *Newsweek Medical Reference Services Quarterly*, and *Medical Library Association*.

Please feel free to contact me if you would like more information about HealthWeb. ☺

Read a great item in a journal or professional newsletter or hear a presentation that would be of particular interest to SOFT members? Please share the information with your SOFT colleagues. Send a copy of the paper or presentation abstract or short synopsis to *EXTRAPOLATIONS* Section Editor Don Kippenberger ([donald.kippenberger@amedd.army.mil](mailto:donald.kippenberger@amedd.army.mil))

## ABFT PROFESSIONAL CERTIFICATION INFORMATION "AT A GLANCE"

### Professional Experience Required

#### DIPLOMATE

- Applicants must have completed at least three years of full-time professional experience (or the part-time equivalent thereof) in forensic toxicology, acceptable to the Board, and acquired subsequent to receipt of the doctorate degree, in one or more of the following categories: (1) postdoctoral education/training in toxicology or closely related discipline(s), (2) practice, (3) research, (4) teaching, (5) administration.
- At least one year of the professional experience must have been acquired during the five years immediately preceding the date of application.
- Applicants are required to document a record of appropriate professional activities in forensic toxicology, in keeping with the concept that "forensic toxicology is the study and practice of the application of toxicology to the purposes of the law."
- Applicants must be engaged in the practice of forensic toxicology at the time of application for Certification.

#### FORENSIC TOXICOLOGY SPECIALIST

- Applicants must have completed at least three years of full-time professional experience (or the part-time equivalent thereof) in forensic toxicology, acceptable to the Board, at least three years of which must be acquired subsequent to completion of a Bachelor's Degree.
- At least one year of the professional experience must have been acquired during the three years immediately preceding the date of application.
- Applicants are required to document a record of appropriate professional activities in forensic toxicology, in keeping with the concept that "forensic toxicology is the study and practice of the application of toxicology to the purposes of the law."
- Applicants must be engaged in the practice of forensic toxicology at the time of application for Certification

Application forms and instructions for their submission can be obtained from: The American Board of Forensic Toxicology, Inc.  
Attn: The Forensic Sciences Foundation, Inc., 410 North 21st Street, Colorado Springs, CO 80901-0669  
Telephone: (719) 636-1100 Fax: (719) 636-1993 e-mail: [info@abft.org](mailto:info@abft.org) or download from [www.abft.org/Documents.asp](http://www.abft.org/Documents.asp)

**The ABFT Nominating Committee Proposes 2006 Slate:** Drs. Bruce Goldberger, Barry Logan, Graham Jones, Hor McCurdy, and Robert Osiewicz. Each will serve as Directors for a three-year term beginning July 1, 2006. ☺

**DON'T DELAY: REGISTER FOR THE 2006 SOFT MEETING TODAY**

# 2005 MEETING WORKSHOP SURVEY RESULTS

Submitted by Peter R. Stout, Workshop Chair, SOFT 2005 Nashville, TN      pstout@rti.org

We did not have a particularly high response to the short survey regarding the 2005 SOFT meeting workshops in Nashville. There were 23 responses in total, less than a 10% return, so all of the results are at the level of anecdotal.

Questions were in three categories: workshop quality, workshop environment and future meetings. The responses were uniformly favorable about the quality of the workshop and the workshop environment. Problems reported related to room sizes, particularly for several workshops that exceeded the room size. This kind of information is very useful for future planning. Suggestions for improvements were split between comments encouraging greater depth and detail and those encouraging more basic presentation of material.

For future planning the questions dealt specifically with how many workshops individuals plan on attending at the next meeting and if there is interest in attending webcasts of workshops. We asked of respondents "if workshops were available as a webcast, would you attend the workshop as a webcast?" All respondents (23) replied that they would attend both onsite and webcasted conflicting workshops, and all would attend the same number or more workshops next year than attended in 2005. Finally, all but two respondents, who also indicated that they were retired or independent consultants, indicated that there were additional people at their institutions that would not otherwise attend the physical meeting that would attend webcasts if they were offered.

The major conclusion supported by the survey is the need to increase response rates on future surveys to have more useful information. The few responses sent are suggestive that the workshops were very well received and that attendance at the '06 meeting workshops may equal or exceed 2005. The responses are also suggestive that there is interest in alternative avenues for attending workshops. Since it appears a significant audience is available, it is likely worth the time and effort to find ways of addressing significant issues for webcasting workshops such as intellectual property rights, appropriate access and potential discovery requests for course material.

We look forward to the Austin meeting and hope to have a better survey available in a timelier manner. We are always interested in feedback and suggestions for improving the content and delivery of workshops. Comments and/or suggestions are welcome. Thanks to those who responded to the survey! ☺

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## EXCELLENCE IN SOLID PHASE EXTRACTION AWARD



At the 2006 Annual Soft Meeting, United Chemical Technologies plans to present an award for outstanding contributions to the field of Solid Phase Extraction in Forensic Science to one or more individuals or organizations. It may be awarded for a single unique application or technique, volume of work presented over time, extraction prior to a particular area of analysis, such as GC/MS, LC/MS, electrophoresis, TLC, etc., a new approach to the use of SPE in forensics, its use in a unique area of forensic science, or any work which promotes the science of SPE in general.

For consideration, submit a copy of your work along with a short statement as to why you believe your work deserves this recognition to: United Chemical Technologies, Inc., Attn: Excellence in SPE Award, 2731 Bartram Road, Bristol, PA 19007

The deadline to submit entries is 30 days prior to the annual SOFT meeting. Work received after that time will be considered for the following year's award. ☺

## NEW DRUGS: Send information on new drugs to

**Section Editor:** Dan Anderson, M.S., Los Angeles County Dept. of Coroner, Los Angeles, CA  
Danderson@lacoroner.org ([new](#))

# ELMER GORDON OPEN FORUM AN OPPORTUNITY FOR INFORMAL DIALOGUE

*In the beginning:* The "Elmer Gordon Open Forum" was inspired by gatherings just like this one at the 1978 SOFT meeting. You can almost hear Dr. Gordon saying, "We need to sit and talk about this."

Foreground: Mike McGee, Marina Stajic, John McGuire, ?

Background: Elmer Gordon and Joe Monforte



Happy 90<sup>th</sup> birthday, **Dr. Sunshine**, who celebrated with family and friends (March 17).

Best wishes to **Dick Shaw**, a SOFT member for many years who recently announced his official retirement from active participation in forensic toxicology.

Condolences to **Marcia Anderson (Mrs. Bill)** whose mother recently passed away.

Congratulations to SOFT members Aaron Jacobs, Dave Lesser, Barry Levine, Eric Shimomura, Mick Smith, Buddha Paul, John Jemionek, and the entire AFIP-FT staff. The **Armed Forces Institute of Pathology – Forensic Toxicology Laboratory** has been named MLO's 2006 Medical Laboratory of the Year! Check out the April 2006 MLO or go to [www.mlo-online.com](http://www.mlo-online.com) for details.

Thanks to **Brad and Carol Hepler** and **Janet Mohn** for their assistance with the photographs in this issue of **ToxTalk**. More photos will appear in future editions, space allowing. ☺

## PROFESSIONAL CALENDAR

### PREPARATIONS FOR FUTURE SOFT MEETINGS UNDERWAY

#### 2006:

Tuesday, October 3 through Saturday, October 7, 2006

(Delayed one day due to Yom Kippur on Monday)

Hilton Austin, 500 East 4th Street, Austin, TX

512-482-8000

Host: Rod McCutcheon, Chief Toxicologist, Bexar County

Office of the Medical Examiner, San Antonio, TX

210-335-4040 [rmccutcheon@co.bexar.tx.us](mailto:rmccutcheon@co.bexar.tx.us)

#### 2007:

October 14-19, 2007

Research Triangle Park, North Carolina

Co-hosts: Jeri Roper-Miller and

Ruth Winecker

#### 2008:

Phoenix, AZ– Vickie Watts

#### 2009:

Oklahoma City, OK – Phil Kemp

**JUNE 9&10: CALIFORNIA ASSOCIATION OF TOXICOLOGISTS, San Francisco, CA.** Contact [www.cal-tox.org](http://www.cal-tox.org) or call 707-586-1143

**Aug. 26-Sept. 1: THE INTERNATIONAL ASSOCIATION OF FORENSIC SCIENCES, Ljubljana, Slovenia.** Contact [info@iafs2006.com](mailto:info@iafs2006.com) or go to [www.tiaft2006.org](http://www.tiaft2006.org)

**Oct. 10-13: NY Academy of Sciences Oral-Based Diagnostics Conference, Lake Lanier Islands, GA (near Atlanta).** Contact Renee Wilkerson at [rwilkerson@nyas.org](mailto:rwilkerson@nyas.org) or go to [www.nyas.org/oral](http://www.nyas.org/oral).

**SOUTHWESTERN ASSOCIATION OF TOXICOLOGISTS (SAT).** Fall 2006 Austin, TX (with SOFT) [www.sat-tox.org](http://www.sat-tox.org)

**SOUTHWESTERN ASSOCIATION OF FORENSIC SCIENTISTS (SWAFS).** Go to [www.swafs.us](http://www.swafs.us) ☺

**2007: Annual Borkenstein Course "The Effects of Drugs on Human Performance and Behavior" and Borkenstein "Course on Alcohol and Highway Safety: Testing, Research and Litigation."** Contact [dlindsay@indiana.edu](mailto:dlindsay@indiana.edu) or [www.indiana.edu/~lawactn](http://www.indiana.edu/~lawactn) ☺

**NEXT TOXTALK DEADLINE: BEFORE JULY 15 – FIRM!!!**

5/15/06