



TOXTALK



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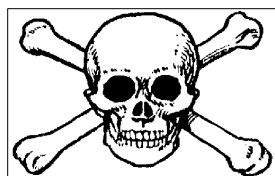
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**“JOINT” ANNUAL MEETING OF SOFT & TIAFT
 IN SAN FRANCISCO,
 SEPTEMBER 25—30, 2011**

Registration for the 2011 annual meeting will be available on-line in a few short weeks. Registering “early” is important this year—do so before **August 1st** to save money and ensure a seat in a desired workshop.

The combination of TIAFT and SOFT together will definitely draw an

unusually high meeting attendance in 2011.

Titles of the twelve half day workshops are listed within the Meeting Info Section of this issue. See pages 36-42 for details and preparations regarding San Francisco and the annual meeting there in September.

**LAURA LIDDICOAT
 NEW TOXTALK ASSOCIATE EDITOR
 Submitted by Yale H. Caplan, Ph.D., DABFT, ToxTalk Editor**

ToxTalk is pleased to announce the addition of Laura J. Liddicoat to the editorial staff as Associate Editor. Laura is Supervisor of the Forensic Toxicology Program at the Wisconsin State Laboratory of Hygiene (WSLH). She received her Bachelor of Science degree in Medical Technology at the University of Wisconsin—Madison.

She is a member of the Society of Forensic Toxicologists (SOFT), American Academy of Forensic Sciences (AAFS), the International Joint AAFS/SOFT Driving Under the Influence of Drugs Committee, the International Association for Chemical Testing (IACT), the National Safety Council’s Committee on Alcohol and Other Drugs (CAOD), and the Scientific Working Group on Forensic Toxicology.

At the Toxicology Section of the WSLH, Laura performed alcohol and drug analyses, trained chemists, and provided expert witness testimony for eleven years prior to promotion to Supervisor in 1997. As Supervisor she serves as technical expert for alcohol and drug chemists, reviews testing, reports alcohol



and drug results and provides interpretation and testimony regarding drugs and their effects on human performance. She also worked on the (European) Rosita 2 Project

(ROadSide Testing Assessment).

Laura will assist in the production and future development of ToxTalk.

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PRESIDENT'S MESSAGE

Submitted by Sarah Kerrigan, Ph.D.

“OPPORTUNITY FOR GROWTH AND IMPROVEMENT”

As our organization turned 40 this past year, there are many opportunities for growth and improvement.

The introduction of the Criminal Justice and Forensic Science Reform Act (CJFSRA) introduces a climate of change and the motivation and opportunity for real professional growth. SOFT has always nurtured professional standards, training and research. This is evident each year at our annual meeting, our commitment and support for scholarships and awards, the ongoing work of our committees throughout the year, and more recently through development and participation in SWGTOX. Nurturing these standards is not only good for the soul of our members, but also instills even greater public confidence in the important work that we do.

Just as leadership, resources and service are key components for the success of our laboratories, they are also essential for SOFT. The most valuable organizational resource we have is our membership, offering broad and impressive experience in administration, research, education and forensic toxicology at the bench. The latter, although often under-recognized, is critical to our success. No change in philosophy, culture or practice can be truly successful without cooperation and commitment from all levels, including government. While we believe our organization is comprised of dedicated and hard working professionals in public and private sector laboratories and institutions, change is imminent. During a time when forensic science is very much under the microscope, many of our laboratories and institutions are facing extraordinary budgetary setbacks. As we move forward we should remember that al-

though we judge ourselves by our best intentions and noble efforts, we are judged by others by our last worst act.

We have an opportunity and responsibility to strengthen and further improve the standards of our discipline. In order for this to be accomplished, our members must be actively engaged and ready to serve. I am reminded of the university motto where I work: “The measure of a life is its service”. In light of pending legislation and oversight that will undoubtedly shape our future, I encourage each of you to promote our discipline, educate others about the importance of our work, and remain steadfast in your commitment to serve our organization and profession as a whole.

CFSO Update

In January 2011 the SOFT Board of Directors unanimously voted to continue working with the Consortium of Forensic Science Organizations (CFSO). The Criminal Justice and Forensic Science Reform Act introduced in the 112th congress by Senator Leahy of Vermont will undoubtedly receive more input and amendments as the bill moves through the various committees. It is critical that we engage in this process and CFSO membership allows us to educate congressional sponsors of potential forensic science legislation of the issues. Peter Stout has done a superb job keeping the board and members apprised of activities in DC for over a year. As Peter now assumes the role as Treasurer on the executive board, Laurel Farrell has agreed to take on the role as CFSO representative. Having served over 20 years as a forensic toxicologist in the State of Colorado and as Past President of SOFT, Laurel will do an excellent job keeping us up to date on activities and more importantly, representing the very diverse nature of our members.

Membership Diversity

The SOFT membership survey conducted in 2010 clearly showed the diversity of our members in terms of sub-discipline and funding. Although the majority (57%) of respondents work in publicly funded laboratories (federal, state, county and city), a significant number (22%) are represented in the private sector. Medical examiner and human performance toxicology accounted for 63% of work performed, while regulatory forensic drug testing accounted for almost a third. Our long-standing commitment to promoting scientific excellence and professional standards is evidenced by the fact a very small number of respondents (12%) did not participate in an accreditation program at the time of the survey. The overall characteristics of our members are complicated by the fact that many laboratories provide services in more than one sub-discipline. There is no doubt however, that collectively our membership provides essential services in a wide array of settings including death investigation, the criminal justice system, regulatory testing, education and research.

Advocacy Committee

In response to the diversity of members, a new ad-hoc committee was established. The mission of the Advocacy Committee is to serve in an advisory capacity to the SOFT board of directors and represent issues specific to each stakeholder within the organization. Bruce Goldberger will chair this committee and the following individuals have agreed to serve and represent the special interests of their particular group.

- Postmortem Toxicology (Lee Hearn)
- Human Performance Toxicology (Amy Miles)

PRESIDENT'S MESSAGE (CONTINUED)

- Private Sector Testing (Phil Kemp)
- Research (Marilyn Huestis)
- Education (Michelle Peace)
- Workplace/Regulatory Testing (Michael Baylor)

In coming months as pending legislation makes its way through congress, members of this committee will help us respond to issues that may impact various stakeholders within the organization. The committee will also help identify laboratories and institutions that may be willing to engage in outreach activities so that individuals making important decisions regarding the future of forensic science make well informed choices based on first-hand knowledge or experience.

As usual we will be using the SOFT website, ToxTalk and the broadcast email system to keep members up to date with current events. If you have specific issues or concerns, I urge you to contact your representative on the Advocacy Committee. It has never been more important to engage and serve.

Ethics Committee

I am pleased to announce that Bob Osiewicz and Robert Forrest join Tony Costantino, Bob Zettl and Aaron Jacobs of the Ethics Committee. This important committee is currently tasked with updating the ethics policies and procedures that were developed in 2004. New documents will be circulated to the membership and reposted on the website. I would like to thank all of them in advance for their important contributions to SOFT.

Last Thoughts

I would like to thank Michelle Peace and her incredible team for a hugely successful 40th anniversary meeting in Richmond, VA. This was a memorable event and meticulously executed, thanks to Michelle's attention to detail.

Finally, I encourage each and every member to engage and serve. As I discussed in Richmond during my address to the membership, strength of leadership and sound judgment are more important now than ever before. We have tremendous leaders within our organization – some of whom I have grown to know well and are close friends, and many others whom I admire from afar. I am indeed humbled to serve as President and look forward to moving forward during such interesting times.

ACMT SEMINARS IN FORENSIC TOXICOLOGY “STIMULANTS” MAY 9-10, 2011

The American College of Medical Toxicology will host a **two day program focusing on STIMULANTS May 9 - 10, 2011 in Washington DC.**

This will be an intensive course on the forensic aspects of stimulants. Leaders in the field will cover issues pertaining to biochemistry, toxicokinetics, clinical effects, and laboratory determinations and interpretation of many of the agents within this important class of drugs. Issues related to the neurobiology of impairment will be presented. Special emphasis will be given to a thorough understanding of the scientific and clinical basis for stimulant forensic cases. Small group and interactive presentations will be used to enhance the curriculum.

More details available [here](http://www.acmt.net) and at the ACMT website www.acmt.net.

Seminar Sessions will include:

- Epidemiology of Stimulants: Illicit Drugs
- Epidemiology of Stimulants: Licit (ADHD) Medications
- Clandestine Lab Issues
- Forensic Pathology Findings in Stimulant Related Deaths
- Pharmacokinetics of Amphetamines and Analogs
- Pharmacodynamics of Amphetamines and Analogs
- Pharmacology and Toxicology of Cocaine
- Interpretation of Post-Mortem Stimulant Lab Determinations
- Analytical Techniques for Stimulant Detection
- Amphetamine Related “Impairment” and “Reverse Impairment”

- Stimulant Use and Abuse, and Workplace Testing
- Clinical Pearls and Forensic Pitfalls in the Management of Stimulant Abusing Patients
- DRE Program & Scientific Basis
- Panel Discussion: Challenges in Drug Recognition on the Highway, in the ER, and from the Lab
- Clinical Presentations of MDMA & Newer Amphetamines





TREASURER'S MESSAGE

Submitted by Marc A. LeBeau, Ph.D., DABFT, 2010 SOFT Treasurer

The end of 2010 signaled the end of my tenure as SOFT Treasurer and the beginning of Dr. Peter Stout's term in the position. In January, Dr. Stout, Martin Haloran (our SOFT Certified Public Accountant), SOFT Administrative Assistant Bonnie Fulmer, and I met at the SOFT office to ensure a successful transfer of these duties. Additionally, the necessary SOFT bank account signatures, documentation, and account access permissions were completed.

Dr. Stout has already demonstrated his strong ability with tracking the various SOFT accounts and why he was an excellent candidate for this position. Additionally, this year he will oversee a planned independent review to be performed by Osborne, Parson & Rosacker, LLP, Certified Public Accountants. It is comforting to see that the SOFT accounts are in such good hands as we progress forward.

I am also happy to report that the very successful 2010

SOFT Annual Meeting in Richmond, Virginia left us in a much-improved financial position. The Richmond Meeting netted over \$100,000. This was considerably more than we had budgeted! This is particularly impressive given the fragile economic times that we are still experiencing. A big "thank you" goes out to Michelle Peace, Lisa Moak, Sue Brown and the entire Richmond Team for such a financially-successful, scientific meeting!

Table 1 summarizes the balances in all of the SOFT banking accounts at the end of 2010 compared to a year earlier. Further, the SOFT Board of Directors continues to want the membership to be very aware of the financial information of the organization. Therefore, I have also included copies of the *2010 Budgeted vs Actual Spending* report, as well as the *2011 SOFT Budget* approved by the SOFT Board of Directors at our recent meeting in Chicago. Please review these documents and let Dr. Stout know if you have any questions or concerns about how the SOFT Board has planned to spend the organization's funds in the coming year.

There are some significant differences in the 2011 budget from 2010. Specifically, we have increased the budgeted expenses for Professional Fees for both accounting and legal services. This is to support the upcoming financial review, but also potential legal advice for SOFT's ethics and professional standards policies. We also increased the funding for Continuing Ed activities and the ERA/YSMA Awards. For Continuing Ed activities, we also removed the expectation for regional events to reimburse revenues to SOFT. The board made the decision to no longer fund the SOFT Night Out at AAFS. As we made substantial net revenue from the 2010 meeting, the Board chose to not increase the expectation of revenue from the 2011 meeting even though this means the budget has a negative expected net. The effort is to reinvest the proceeds of the 2010 meeting in the membership through increased Awards, increased support of continuing education efforts, increased professional advice for Society finances, and holding membership dues constant.

Table 1: Comparison of End-of-Year Account Balances for 2009 and 2010

| Account Name: | Balances | | |
|---------------------------|---------------------|---------------------|-------------------------|
| | 12/31/2009 | 12/31/2010 | Net Increase/(Decrease) |
| Operational Account | \$120,502.37 | \$170,000.98 | \$49,498.61 |
| Reserve Account | \$100,197.94 | \$100,083.61 | (\$114.33) |
| ERA Account | \$187,229.33 | \$183,515.76 | (\$3,713.57) |
| Online Dues Account | \$496.71 | \$9,761.91 | \$9,265.20 |
| Annual Meeting - Checking | \$5,000.00 | \$1,000.00 | (\$4,000.00) |
| Annual Meeting - Merchant | \$425.00 | \$500.00 | \$75.00 |
| TOTALS: | \$413,854.64 | \$464,862.26 | \$51,010.91 |

| INCOME | 2010 PLANNED | 2010 ACTUAL | DIFFERENCE | S.O.F.T. 2010 BUDGET VS ACTUAL * 1/1/10 TO 12/31/10 |
|---|---------------------|--------------------|-------------------|--|
| SOFT Application Fees | 1,500 | 4,656 | 3,156 | |
| SOFT Membership Dues | 56,000 | 53,884 | (2,116) | |
| Late Fees (Dues) | 400 | 349 | (51) | |
| ERA Donations | 1,000 | 1,861 | 861 | |
| Annual Meeting Net Income | 35,000 | 114,097 | 79,097 | |
| Mugs/Shirts/Memorabilia Sales | 1,700 | 1,982 | 282 | |
| Postage Revenue | 25 | 18 | (7) | |
| Reimbursed CE Seed Money | 4,400 | 4,280 | (120) | |
| ToxTalk Subscription | 60 | 0 | (60) | |
| Silent Auction Proceeds | 4,200 | 3,618 | (582) | |
| Interest Earned - ERA Account | 1,800 | 946 | (854) | |
| Interest Earned - Reserve Account | 1,000 | 500 | (500) | |
| TOTALS | 107,085 | 186,191 | 79,106 | |
| | | | | |
| EXPENSES | 2010 PLANNED | 2010 ACTUAL | DIFFERENCE | |
| AAFS Midyear BOD Meeting Expenses | 1,500 | 1,847 | 347 | |
| AAFS SOFT Night Out | 6,000 | 5,994 | (6) | |
| Bank and Credit Card Service Fees | 3,385 | 5,632 | 2,247 | |
| <i>AMEX Account Maintenance Fees</i> | 60 | 277 | 217 | |
| <i>BankCard Account Maintenance Fees</i> | 2,850 | 5,092 | 2,242 | |
| <i>Discover Account Maintenance Fees</i> | 25 | 0 | (25) | |
| <i>Bank Service Charges</i> | 450 | 263 | (187) | |
| Appreciation Gifts | 1,000 | 1,211 | 211 | |
| CFSO Membership | 10,000 | 10,000 | 0 | |
| Contract Labor | 200 | 75 | (125) | |
| ERA/YSMA Awards | 8,000 | 8,000 | 0 | |
| Internet Account Maintenance | 500 | 655 | 155 | |
| Insurance | 2,100 | 2,087 | (13) | |
| JAT Meeting Issue Expenses | 8,000 | 2,763 | (5,237) | |
| Lease: SOFT Office Space | 6,070 | 5,546 | (524) | |
| Future Meeting Expenses | 2,500 | 36,048 | 33,548 | |
| <i>2011 Annual Meeting</i> | 2,000 | 36,048 | 34,048 | |
| <i>2012 Annual Meeting</i> | 500 | 0 | (500) | |
| Merchant Services | 50 | 0 | (50) | |
| SOFT Office Equipment | 200 | 163 | (37) | |
| SOFT Office/General Admin Expenses | 700 | 40 | (660) | |
| SOFT Office Supplies | 4,500 | 901 | (3,599) | |
| Payroll Expenses | 30,000 | 25,151 | (4,849) | |
| Postage/Shipping Expenses | 800 | 1,998 | 1,198 | |
| Professional Fees: Accounting | 2,500 | 1,469 | (1,031) | |
| QuickBooks Online | 650 | 583 | (67) | |
| SOFT Directory Printing | 0 | 2,501 | 2,501 | |
| SOFT Logo'd Item Expenses | 1,200 | 1,136 | (64) | |
| SOFT Officer/Committee Expenses | 3,000 | 152 | (2,848) | |
| SOFT CE Seed Money | 3,000 | 3,001 | 1 | |
| Young Toxicologists Committee/SSEP | 4,500 | 6,952 | 2,452 | |
| Software/Website Programing | 5,000 | 4,250 | (750) | |
| State of Delaware: Incorporation Expenses | 130 | 25 | (105) | |
| SWGTOX | 0 | 4,789 | 4,789 | |
| Survey Monkey | 200 | 200 | 0 | |
| Telephone | 900 | 840 | (60) | |
| ToxTalk | 0 | 113 | 113 | |
| Website Hosting Expenses | 500 | 458 | (42) | |
| TOTALS | 107,085 | 134,578 | 27,493 | |
| | | | | |
| NET INCOME | 0 | 51,613 | | |

| SOCIETY OF FORENSIC TOXICOLOGISTS 2011 BUDGET | INCOME | 2010 ACTUAL | 2011 PLANNED |
|--|--|--------------------|---------------------|
| | SOFT Application Fees | 4,656 | 2,000 |
| | SOFT Membership Dues | 53,884 | 59,000 |
| | Late Fees (Dues) | 349 | 250 |
| | ERA Donations | 1,861 | 1,000 |
| | Annual Meeting Net Income | 114,097 | 35,000 |
| | Mugs/Shirts/Memorabilia Sales | 1,982 | 1,700 |
| | Postage Revenue | 18 | 15 |
| | Reimbursed CE Seed Money | 4,280 | 0 |
| | Silent Auction Proceeds | 3,618 | 3,500 |
| | Interest Earned - ERA Account | 946 | 900 |
| | Interest Earned - Reserve Account | 500 | 500 |
| | TOTALS | 186,191 | 103,865 |
| | | | |
| | EXPENSES | 2010 ACTUAL | 2011 PLANNED |
| | AAFS Midyear BOD Meeting Expenses | 1,847 | 1,900 |
| | AAFS SOFT Night Out | 5,994 | 0 |
| | Bank and Credit Card Service Fees | 5,632 | 6,000 |
| | <i>AMEX Account Maintenance Fees</i> | 277 | 300 |
| | <i>BankCard Account Maintenance Fees</i> | 5,092 | 5,200 |
| | <i>Discover Account Maintenance Fees</i> | 0 | 0 |
| | <i>Bank Service Charges</i> | 263 | 500 |
| | Appreciation Gifts | 1,211 | 1,000 |
| CFSO Membership | 10,000 | 15,000 | |
| Contract Labor | 75 | 200 | |
| ERA/Y SMA Awards | 8,000 | 14,000 | |
| Internet Account Maintenance | 655 | 500 | |
| Insurance | 2,087 | 2,100 | |
| JAT Meeting Issue Expenses | 2,763 | 8,000 | |
| Lease: SOFT Office Space | 5,546 | 4,625 | |
| Future Meeting Expenses | 36,048 | 5,000 | |
| <i>2012 Annual Meeting</i> | 0 | 4,500 | |
| <i>2013 Annual Meeting</i> | 0 | 500 | |
| SOFT Office Equipment | 163 | 500 | |
| SOFT Office/General Admin Expenses | 40 | 100 | |
| SOFT Office Supplies | 901 | 1,000 | |
| Payroll Expenses | 25,151 | 30,000 | |
| Postage/Shipping Expenses | 1,998 | 2,000 | |
| Professional Fees: Accounting and legal | 1,469 | 8,000 | |
| QuickBooks Online | 583 | 600 | |
| SOFT Directory Printing | 2,501 | 2,600 | |
| SOFT Logo'd Item Expenses | 1,136 | 500 | |
| SOFT Officer/Committee Expenses | 152 | 4,000 | |
| SOFT CE Seed Money | 3,001 | 5,000 | |
| Young Toxicologists Committee/SSEP | 6,952 | 5,000 | |
| Software/Website Programing | 4,250 | 5,000 | |
| State of Delaware: Incorporation Expenses | 25 | 25 | |
| SWGTOX | 4,789 | 0 | |
| Survey Monkey | 200 | 200 | |
| Telephone | 840 | 900 | |
| Internet (SOFT office) | | 900 | |
| ToxTalk | 113 | 0 | |
| Website Hosting Expenses | 458 | 500 | |
| TOTALS | 134,580 | 125,150 | |
| | | | |
| NET INCOME | 51,611 | -21,285 | |



SOCIETY OF FORENSIC TOXICOLOGISTS, INC. BUSINESS MEETING MINUTES—OCTOBER 20, 2010 RICHMOND, VA

Submitted by SOFT Secretary, Dan Anderson, M.S., FTS-ABFT, DABC

Call to order.

The SOFT Business Meeting was called to order at 1541 hours by President Brad Hepler. Secretary Dan Anderson verified that a quorum was present by requesting all Full members, with voting privileges, to stand to be counted. It was approximated that 130 voting members stood. It was later substantiated with 11 pages of meeting sign-in sheets; 141/155 were Full members.

Approval of Agenda.

President Hepler proposed approval of the agenda; no objections were made and the agenda was approved.

Approval of Annual Business Meeting Minutes (OKC-Oct 2009).

President Hepler asked for any corrections to the 2009 Annual Business Meeting Minutes. With no corrections suggested, the minutes were approved.

President's Report.

Brad Hepler welcomed all to the 40th anniversary meeting of SOFT and wanted to take a snapshot at this moment and gaze into the future. But first, Hepler offered his gratitude for all of the assistance throughout the year. He extended his thanks to the BOD, Michelle Peace and her organizational group for a meeting that has been running smooth as glass; the ad hoc board members / committee members, Yale Caplan for ToxTalk, Bruce Goldberger for the website, and Bonnie Fulmer for her dedication to SOFT.

Hepler reminisced over the year about the first three issues of 2010 ToxTalk moving to an electronic format minimizing production/distribution costs and the upgrade/updated website that included new searchable features of ToxTalk archives as well as the soon to be included meeting abstracts. He discussed the response to the NAS report with the introduction of the Forensic Toxicology Council (FTC) that had been active over the year coordinating the efforts of SOFT, AAFS-Toxicology Section, and ABFT for single representation. In addition, the FTC developed a briefing document, as well as a point-of-contact list of laboratories that will be used to facilitate decisions to be made. SOFT joined the CFSO with Peter

Stout representing SOFT and Caplan representing ABFT in this lobbying group which gave the field of Forensic Toxicology an identity. In addition, two individuals were appointed to the IWG as advisors.

Lastly, Hepler informed the membership of the efforts of SWGTOX and their continued activities throughout the year. However, with the development of SWGTOX along with its various committees, the ad hoc committees of Laboratory Guidelines and MS/MS were determined to be an overlap and the BOD voted to disband both to prevent duplicate efforts.

Hepler commented about the future of the SOFT annual meetings and noted that many of the hotel contracts that have since resulted in penalties were signed during good economical times. Because toxicologists were not good hotel negotiators as a whole, implementation of a hotel broker (no cost to SOFT) was seriously being considered. Their specific function will be to re-negotiate existing hotel contracts and any future contracts. The proposal for an annual meeting in Grand Rapids, MI was accepted, however the year of 2014 or 2015 was not decided as the BOD wanted the Hotel Broker to have flexibility or bargaining power in these hotel negotiations. Hepler reiterated that the BOD was sensitive towards the membership and being careful with getting more 'bang for the buck.'

The Code of Conduct document that was to be voted upon by the SOFT membership will instead be sent back to the Ethics Committee for revision before any additional action is taken. Hepler stated that the membership responded both formally (email) and informally (telephone calls) about the document. However, the Policies and Procedures Manual from 2004 contained a section that described several bulleted points about code of conduct as well as SWGTOX will be working on similar documents or standards in ethics.

Hepler concluded his presentation at 1608 hours with a sincere thank you and stated that it was an honor and a privilege to serve the membership and reminded all that the 40th anniversary, Ruby Celebration will occur on Thursday eve.

Secretary's Report.

Dan Anderson reported SOFT had three members pass away this year; Joseph Manno in May 2010, Robert Cravey and Delmiro (Tony) Vazquez in October 2010. Anderson stated that Manno was memorialized in ToxTalk in June 2010 and that Caplan would request specific members to pay tribute to Cravey and Vazquez in future issues of ToxTalk. Anderson requested a moment of silence for all three members.

Anderson reported on the status of SOFT membership; there were currently 699 Full members, 229 Associate members, 28 Student members, and 42 Retired/Charter members totaling 1,012 members. He offered gratitude to his committee of Robert Osiewicz, Jeri Ropero-Miller, and Pat Harding for expeditiously processing 81 applicants for this year.

Lastly, Anderson reported that the membership committee has streamlined the application process by having all applications distributed by PDF, minimizing both copying and postal costs to SOFT. Lastly, he gave a very large thank you to Fulmer for her continued efforts as the administrator to this committee.

Treasurer's Report.

Marc LeBeau reported that SOFT was three quarters through the year and there was ~366K in all accounts. He briefly compared the 2010 budget and the projected budget which had ~31K deficit. He explained that the deficiency was due to the annual meeting not contributing all of its profits to the organizational account yet.

LeBeau mentioned that for 2009, all the 2008 audit recommendations were implemented as well as QuickBooks Online are now in place, promoting both security and efficiency.

The 2009 Annual Tax return was filed, the 2010 quarterly taxes were paid, he performed a 2010 annual property audit and prepared a report, as well as implementing revolving annual meeting bank accounts.

2010 BUSINESS MEETING MINUTES (CONTINUED)

Lastly, LeBeau asked if there were any questions from the membership, and there were none.

Vice President's (Committee) Reports.

Sarah Kerrigan called for committee reports as follows:

A. Bylaws (Yale Caplan)

Caplan reported that there was no activity this year, nothing to report.

B. Budget, Finance, Audit (Robert Turk)

Turk reported that the committee consisted of Mike Schaffer, George Jackson, Joe Saady, Dean Fritch, and Diana Garside and that the 2009 audit reports and 2010 budget were in order.

C. Membership (Dan Anderson)

Kerrigan stated that this report was delivered earlier in the Secretary's report.

D. ToxTalk (Yale Caplan)

Caplan reported that ToxTalk was the heart and soul of the organization and that three years ago, it went through a major format change as well as a significant distribution change in 2010 which saved ~15-20K. The change to an electronic format allowed for limitless pages per issue demonstrated by the 35 page September issue. Caplan asked the membership if there were any questions, comments or criticisms, and there were none. He concluded his report by encouraging the membership to participate.

E. Publication-JAT (Laureen Marinetti)

Marinetti reported there were a total of 22 submissions for the 2010 JAT Special Issue; 12 full manuscripts and 2 case reports being published, leaving 8 articles not being accepted. She also thanked Hepler stating what a pleasure it was working with him and that he was always teaching her.

Hepler commented about the EDIT award stating it was an award for a manuscript published in the annual Special Issue JAT that had a direct impact to the field of toxicology. Hepler further stated that the selection committee did not give out the EDIT award this year as none of the manuscripts met the spirit of the award.

Kerrigan announced the 2011 Special Issue JAT Editor would be Jarrad Wagner.

F. Education Research Award (Phil Kemp)

Kemp reported there were 12 applications and after careful review by his

committee, 3 ERA awards (Hannah Bunt, David Schwoppe, and Samantha Tolliver) and 1 YMSA award (Brianna Peterson) were presented.

G. Meeting Resource Committee

2010 – Richmond (Michelle Peace)

Peace reported that she was both pleased and proud to have hosted the 2010 Annual SOFT meeting. She thanked her enthusiastic planning committee and reported that there were 1,019 attendees (971 registered attendees and 48 VCU students), 42 high school teacher attendees to the SSEP, 129 platform/poster presentations, and 11 workshops with 981 seats filled. Peace further reported that the meeting joined Facebook and Twitter, created a 2010 website, and distributed a 'go-green' thumb drive of meeting abstracts.

2011 – San Francisco (Nikolas Lemos/Ann Marie Gordon)

Gordon reported that Lemos was not able to make this meeting, apologized for him and introduced her planning committee (clad in tie-dye tshirts) seated in the audience. Gordon announced the committee chairs and showed a powerpoint presentation about the Joint meeting of SOFT/TIAFT that will occur September 25 – 30, 2011 in San Francisco, CA. She further reported that all events will occur in the San Francisco Marriott with a 100k sq feet of meeting space, a 2009 government room rate of \$169 with free internet secured, and YFT will be responsible for the SSEP program. BART is an easy transportation option from airport to hotel, the meeting website had been launched, and that one of the conference nights included a visit to Alcatraz with a harbor cruise afterwards. Gordon announced that deadlines for platform/poster abstracts are April 15, 2011, workshop submission deadline is March 1, 2011, and registration deadline (on-line) is August 1, 2011. Gordon concluded her report showing a San Francisco video.

2012 – Boston (Michael Wagner)

Wagner reported that the 2012 meeting will occur the week of July 4 and the meeting will allocate time for celebration of the July 4th holiday. He stated that multiple labs in the area will assist with this meeting and the theme will be "Revolutionary New Ideas." He introduced the laboratory representatives for the meeting host committee: Indiana University School of Medicine – Michael Wagner; NH State Department of Safety Division of

State Police – Colleen Scarneo; New York State Police Forensic Investigation Center – Jennifer Limoges; New Jersey State Police – Bridget Veridino; Massachusetts State Police – Albert Elian.

2013 – Orlando (Bruce Goldberger)

Goldberger reported that the 2013 meeting will be the last week of October, over Halloween, however, will not include a costume theme for the President's reception. He reported that Michele Merves and Jeri Roper-Miller will be the Scientific Co-chairs, Chris Chronister and Julia Pearson will be the Workshop Co-chairs, Jennifer Hoyer will be the Meeting Treasurer.

H. Drugs and Driving (Jennifer Limoges)

Limoges reported that the committee has been very busy with one workshop at this annual meeting chaired by Fiona Couper and Amy Miles that was well attended and well received. In addition, she reported that the 2010 SOFT Drugs/and Driving Special Session will be on Thursday and that the new website had a special section in the members only area for drugs and driving that contained information and relevant literature.

I. Policy and Procedures (Bill Anderson)

Anderson reported that all minutes were abstracted and entered into a database. The Policy and Procedures Manual has been updated and a copy was forwarded to the SOFT office.

J. Web Site (Bruce Goldberger)

Goldberger announced the launch of the new SOFT website that occurred last month and acknowledged Matt Juhascik as a huge participant of the website. He further indicated that much of the web site daily duties will be delegated to Juhascik in the future. In addition, Goldberger announced that new and archive versions of ToxTalk are located in a members only section of the website, along with a Drugs and Driving section, a DFSA section, and a soon to be Meeting Abstract archive section.

K. Continuing Education (Ann Marie Gordon)

Gordon reported that the ConEd Committee had sponsored two regional workshops in conjunction with NYS DCJS in Albany NY that were blast emailed to the entire SOFT membership for advertisement. The workshops in NY were about Pharmaco-basics and LC/MS/MS. A third workshop, Method Validation, was pro-

2010 BUSINESS MEETING MINUTES (CONTINUED)

posed to be given in the Philadelphia area with a date yet to be announced. Gordon reminded the membership, that all speakers that participated in ConEd workshops, that the lecture material belonged to the committee such that it can be given again in other regional locations.

L. Young Forensic Toxicologists (YFT) (Teresa Gray)

Gray announced the newly formed committee members as Tim Grambow, David Schwope, Erin Karschner, Michele Merves, and Jayne Thatcher. The first meeting of the YFT occurred on Sunday, October 17, 2010 that included over 50 attendees where a guest speaker discussed Alcohol Energy Drinks. In addition, Gray announced that there were 30 poster entries (70 submitted for entire meeting) for first YFT award of a complimentary 2011 meeting registration. The winner was announced at the President's reception as James Watterson.

M. Drug-Facilitated Sexual Assault (Laureen Marinetti)

Marinetti reported that the committee sponsored a workshop that was given at this annual meeting that was well attended. She stated that the January 2010 Forensic Science Review publication was distributed to all workshop participants. Lastly, Marinetti stated that the web site, DFSA special section will be updated soon.

N. Ethics (Aaron Jacobs)

Jacobs announced the committee members as Bob Zettl and Anthony Costantino and stated that there were no ethical issues or concerns this year.

O. Nominating (Anthony Costantino)

Costantino reported that the committee members included Ed Cone and Marina Stajic. He further indicated that the slate of Officer nominations for consideration by the membership for 2011 was published in September 2010 ToxTalk consisting of the following individuals: President - Sarah Kerrigan, Vice President- Marc LeBeau, Treasurer- Peter Stout, Director- Jennifer Limoges, and Director- Bruce Goldberger.

P. Strategic Planning Committee (Marc LeBeau)

LeBeau announced the committee members as Laurel Farrell, Bob Zettl, Denny Crouch, Dan Isenschmid, and Bob Turk before reporting that all proposals suggested two years ago had been imple-

mented and that there were no new proposals, however the committee will have some activities in the coming months.

Q. CSFO (Peter Stout)

Stout reported that the CSFO was in the middle of a historical discussion and stated that the list of laboratories was important to update for distribution of information. He further stated that the CSFO will remain active and will stay involved with the process.

Kerrigan concluded the Committee Reports.

Announcements/Liaison Reports.

- **AAFS**- Ruth Winecker reported there will be two full days of scientific sessions with 68 platform/posters presentations at the AAFS meeting held in Chicago, IL from February 21-26, 2011.

- **TIAFT**- No report given.

- **Mid-West Association of Toxicology and TDM**- Marinetti reported that the next meeting will be held in Toledo, OH on April 14-15, 2011.

- **IATDMCT**- Loralie Langman reported on the bi-annual meeting to be held in October 2-6, 2011 in Stuttgart Germany.

- **CAT**- John Hughes reported that CAT hosts two meetings a year (November and May). The November 5 & 6, 2010 meeting will be held in Anaheim, CA and the May, 2011 meeting in Napa Valley, CA. Lastly, he indicated that CAT will be co-sponsoring with ACMT an Ethanol/Marijuana workshop on December 13 & 14, 2010 in San Francisco, CA.

- **ABFT**- Goldberger reported on certifications and there were 4 new Specialists and 2 new Diplomats.

- **FTCB** - Amanda Jenkins reported that the FTCB has three exam certifications covering Alcohol, Toxicology and Drug testing. She also indicated that the FTCB changed the minimum educational requirements and reported that there are 79 active diplomats with 16 new certificants. Lastly, Jenkins encouraged the membership to become certified due to the NAS Report.

- **AAFS History of Toxicology**: Bob Bost reported a special thanks to Peace and her group of volunteers for assisting in the Genealogy tree of mentors.

Unfinished Business.

Hepler asked the membership if there was any unfinished business and there was none.

New Business.

a. **Awards**: 2010 ERA/YSMA Recipients- Kemp awarded the four recipients with their plaques and financial stipends.

b. Recognition of Meeting

Hosts/Chairs: Hepler thanked Peace with flowers and a gift. Peace in turn announced and thanked her committee chairs with plaques. Workshop Coordinator Carl Wolf acknowledged the 22 workshop co-chairs with individual plaques.

c. Recognition of Outgoing Officers:

Hepler thanked and recognized the outgoing officers by presenting them with individual plaques: Vice President - Sarah Kerrigan, Treasurer - Marc LeBeau, Director - Peter Stout, and Director - Dwain Fuller. Vice President Kerrigan acknowledged President Hepler with a plaque as well.

Elections - Nominees:

Hepler requested and received from the membership a motion to accept each nominee for the selected positions.

- i. President: Sarah Kerrigan
- ii. Vice President: Marc LeBeau
- iii. Treasurer: Peter Stout
- iv. Board of Directors: Jennifer Limoges and Bruce Goldberger

All nominees were accepted unanimously by the membership.

Incoming President's Remarks.

Hepler remarked about the 1987 McCurdy gavel and passed it along to incoming President, Sarah Kerrigan. She thanked the membership for this prestigious award and honor to serve and noted the challenges ahead with continued work with the NAS report and the budget cuts experienced by all forensic laboratories. Kerrigan also stated that SOFT needs to have cohesive representation by having a diverse group coming together. She further discussed her personal year of building and opening a regional crime laboratory, having another child, and what a profound impact her grandmother of 88 years old had on her. She discussed the idea of lab leadership or communicating with management as you cannot fix what you don't know about. Lastly, Kerrigan indicated that it was very important to volunteer for SOFT and she truly viewed this opportunity as an honor to serve the membership in the upcoming year.

Adjournment at 1736 hours.



DRUGS IN THE NEWS

ALCOHOL AND CAFFEINE = RISKY BEHAVIORS— ANOTHER CHICKEN OR EGG DILEMMA?

Submitted by Section Editor, **Dwain C. Fuller, D-FTCB, TC-NRCC**

Send interesting “*Drugs In The News*” articles to Section Editor, Dwain Fuller, (Dwain.Fuller@va.gov)

“Only Irish coffee provides in a single glass all four food groups: alcohol, caffeine, sugar, and fat.” ...
Alex Levine

Lacking only the fat, the new “Irish coffee” appears to be the combination of energy drinks and alcohol. The most well-known of these is probably the “Jager Bomb”, a concoction composed of Red Bull® energy drink with a shot glass of Jagermeister® dropped into it.

The popularity of these ersatz energy drink/alcohol combinations spawned yet a new entity: the caffeinated alcoholic beverage (CAB), some of which was being sold in a 24 oz can, containing 11-12 % alcohol by volume, with names like Four Loko®, Moon-shot®, Joose®, and Max®.

This new ready-to-drink beverage has not escaped the scrutiny of the FDA. In November 2010, the FDA issued a warning to producers of the CAB drink, Four Loko®, and other similar products, that these products were being marketed in violation of the Federal Food, Drug, and Cosmetic Act (FFDCA). In that “the FDA has not approved the use of caffeine in alcoholic beverages at any level, and based on the information FDA has reviewed, the agency does not consider the use of caffeine in the beverages... to be generally recognized as safe (GRAS).”



alcohol is associated with risky behaviors that may lead to hazardous and life-threatening situations.”

I agree with this assessment, but as physician/writer, Ben Goldacre often says, “It’s a bit more complicated than that.” The interplay of alcohol, caffeine and the hubris of youth presents an intriguing intersection of pharmacology, psychology, pop culture, peer pressure, and marketing.

Pharmacology:

Let’s begin in our own backyard, the pharmacology. Alcohol mixed with energy drinks, is abbreviated “AmED” in some papers, thus we will use that abbreviation as well. AmED’s differ mainly from CAB’s in that AmED’s are concocted by a bartender or consumer and CAB’s are mass-produced already containing both caffeine and alcohol. Of course the FDA has little control over the former, after all we have

been consuming liquor and caffeinated cola drinks since time immemorial. Recently however, there have been several interesting studies on the subject of alcohol and caffeine mixtures, a few of which are listed below. All are worth taking the time to read, but the take-home points of these studies tend to be:

- Caffeine decreases the perception of intoxication, but does not improve performance.
- Caffeine tends to counteract slowing of response time in divided attention tasks.
- Caffeine does not improve accuracy in divided attention tasks.
- Energy drink ingredients give the consumer a greater false sense of physical and mental competence and decrease the awareness of impairment.

Other more well-known pharmacological factors that should also be considered are:

- Carbonation tends to increase gastric emptying and ethanol absorption rate.
- Diluted ethanol is more rapidly emptied from the stomach than are high concentrations of ethanol.

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DRUGS IN THE NEWS (CONTINUED)

While the previous points are decidedly pharmacological in nature, others may not be so clear cut. Some of these findings are:

- Those consuming AmED's in real-life situations drank longer, consumed more ethanol and had higher breath alcohol concentrations than those consuming ethanol or energy drinks alone.
- Consuming AmED's in real-life situations is associated with a 3-fold increase in the odds of leaving a bar with ≥ 0.08 g/dL breath alcohol concentration equivalent.
- Consuming AmED's in real-life situations is associated with a 4-fold increase in intent to drive after leaving a bar.

While these effects could certainly have a pharmacological component, perhaps due to altered self-assessment of impairment, one tends to wonder how other factors come into play.

One study found that AmED's are highly associated with "jock identity", masculinity and risk-taking behavior. This gives rise to the possibility that at least part of the behavioral component of prolonged drinking, with resulting higher breath alcohol concentrations, may be that the groups that are attracted by energy drink marketing, i.e. jocks, young males, etc., are disproportionately represented in the studied population in these real-life studies. In other words, how much of these risky drinking tendencies are cause and how much are effect?



Marketing:

Energy drinks are typically marketed to male teens and twenty-somethings, playing up to testosterone-rich masculinity and implying improved athletic performance and endurance. Studies indicate that men reported more frequent consumption of energy drinks than did women. The marketing tends to embrace risk-taking behavior with the sponsorship of extreme sporting events such as bridge jumping, base diving, etc. Even the names of many of these products invoke masculinity, bravado, sexuality, taboo, performance, endurance, and stimulation. Among the brand names are: Red Bull, Monster, Amp, Full Throttle, No Fear, Cocaine, Crunk, Adrenaline Rush, Rockstar, Liquid Ice, Jolt Blue, Meltdown, Molotov Explosive Energy, 5 Hour Energy, Hype, Energy, Reload, Battery, Bawls, Blue Charge, Blue Energy, Go Fast, Burn, Hustler, NOS, Mad Dog, Redline, Relentless, and Wired, all registered trademarks. And the list goes on.

Yet another marketing issue involves CAB's. Perhaps the most well-known of these, due to media coverage, is Four Loko®.

Although now off the market, in at least its caffeinated form, Four Loko® was 11-12% alcohol by volume; 2 to 3 times the alcohol concentration of beer, and was sold in 24 ounce cans; twice the size of the common 12 ounce beer. So let's do the math: One can of Four Loko® contained the alcohol equivalent of approximately 4-6 beers. A virtual six-pack in a can, you might say.

Pop Culture:

AmED's have been made popular in the mainstream by television shows such as Jersey Shore. Where perhaps the character most associated with machismo and masculinity, "the Situation", known for displaying his abs, is often seen ordering and consuming Jager bombs, which he pronounces yaga-bwomb, in a thick Jersey accent. This show alone has probably introduced the drink to an untold number of American youth.

Psychology:

The concept of possible confounding variables was not lost on AmED researchers. One study investigated the role of expectancy on the impairing effects of alcohol. In the study, researchers led subjects to expect that caffeine would counteract the impairing effects of alcohol. Ironically, those subjects so prompted, displayed much greater impairment on a psychomotor task as compared with subjects who held no such expectation. This in itself is a frightening finding when applied to an often alcohol-naïve, risk-taking, highly-suggestible population such as teen and college-age drinkers.

DRUGS IN THE NEWS (CONTINUED)

Other studies point out possible population biases, observing that, "...on premise consumption of energy drinks mixed with alcohol may be a marker for difficulties in psycho-social development" and "...patrons who consume drinks mixed with energy drinks may have somewhat distinct behavioral or psychological characteristics, and it tends to weaken pharmacological explanations for the observed associations." Yet another study remarks: "...the relationships between consumption of AmED, high-risk drinking and alcohol-related consequences may be the result of selection effects; specifically, sensation-seeking individuals may be drawn to energy drinks, heavy alcohol consumption, and risky behaviors."

Other Factors:

One cannot dismiss the fact that the addition of alcohol to energy drinks tends to make alcohol more palatable to novice drinkers, likely resulting in increased alcohol intake. Furthermore, the availability of products like Four Loko® in increased alcohol concentration and large servings adds to both the availability of alcohol and perhaps to a typically masculine peer pressure to finish an entire serving of the product or else be considered a lesser member of the peer group.

Summary:

Whatever the causes, CAB's and AmED's are associated with risky drinking behaviors often resulting in intoxicated driving. This has merited the attention of the FDA and should be of concern

to social scientists and forensic toxicologists as well.

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DETECTION OF SYNTHETIC CANNABINOIDS IN US ATHLETES SUSPECTED OF SPICE USE

*Submitted by Rebecca Heltsley, Ph.D., Melinda K. Shelby, Ph.D., Dennis J. Crouch, BS, MBA., FTS-ABFT, David L. Black, Ph.D., DABFT¹, Timothy A. Robert, Ph.D., Lucas Marshall, M.S., Chantel Bender, BS and Anne DePriest, Pharm.D.; Aegis Sciences Corporation and
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JWH-018 was synthesized in 1995 and is just one of the more than 470 synthetic cannabinoids and metabolites that have been prepared¹. Dating back to at least 2004, JWH-018 and closely related compounds such as its butyl analog JWH-073 have been incorporated into “spice” products that are marketed as incenses or household aromatics² (Figure 1). These products are widely available at smoke shops and the Internet and are sold under a variety of names³ (Table 1). A 2010 study identified at least 40 different “spice” products that contained one or more synthetic cannabinoid agonists³.

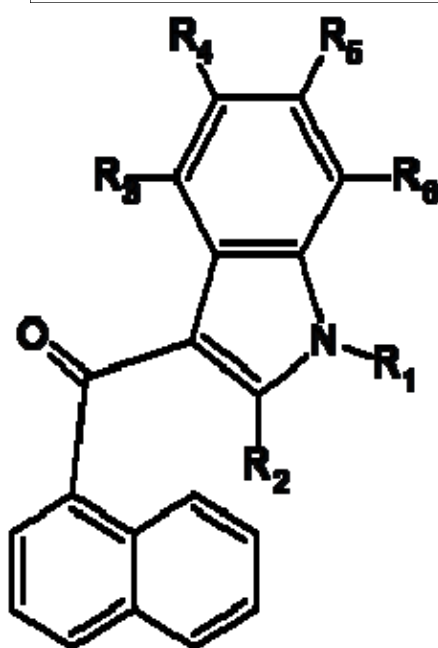
The absorption, distribution, metabolism and excretion of these compounds, especially in humans have not been elucidated. Consequently, the potential effects, toxicity, detection and duration of detection of these compounds remain areas needing further investigation. Some reported effects after use of a product containing JWH-018 and CP-47497 included reddening of the conjunctivae, increased pulse rate and xerostomia². Other reported effects were alterations in mood and perception and a sense of being impaired. American Association of Poison control Center data show an increase in adverse events from the use of spice products. Their data show only 14 reported cases of adverse effects in the last quarter of 2009, but 2,862 reported exposures in 2010⁴. Symptoms of use included tachycardia,

Table 1. Products

| Product Name | JWH-018 | JWH-073 |
|----------------------------|----------|----------|
| Pep Spice X | Positive | Positive |
| Pep Pourri Twisted | Positive | ND |
| Pep Pourri Original | Positive | ND |
| Genie | Positive | ND |
| Spice Diamond | ND | ND |
| Spicey Ultra | Positive | Positive |
| Diamond | Positive | Positive |
| K1 Fire Blend | Positive | Positive |
| Ex-SES Platinum | Positive | Positive |
| K2 Premium Blend | Positive | ND |
| Dancing Monkey | Positive | ND |

ND = Not Detected

Figure 1. Structure of JWH-018, JWH-073 and Metabolites



| Compound/Metabolite | R1 | R2 | R3 | R4 | R5 | R6 |
|---------------------|--|----|----|----|----|----|
| JWH-018 | (CH ₂) ₄ CH ₃ | H | H | H | H | H |
| N-(5-OH-pentyl) | (CH ₂) ₄ CH ₂ OH | H | H | H | H | H |
| N-pentanoic acid | (CH ₂) ₄ COOH | H | H | H | H | H |
| 2-OH-indole | (CH ₂) ₄ CH ₃ | OH | H | H | H | H |
| 4-OH-indole | (CH ₂) ₄ CH ₃ | H | OH | H | H | H |
| 5-OH-indole | (CH ₂) ₄ CH ₃ | H | H | OH | H | H |
| 6-OH-indole | (CH ₂) ₄ CH ₃ | H | H | H | OH | H |
| 7-OH-indole | (CH ₂) ₄ CH ₃ | H | H | H | H | OH |
| JWH-073 | (CH ₂) ₃ CH ₃ | H | H | H | H | H |
| N-(4-OH-butyl) | (CH ₂) ₃ CH ₂ OH | H | H | H | H | H |
| N-butanoic acid | (CH ₂) ₃ COOH | H | H | H | H | H |
| 4-OH-indole | (CH ₂) ₃ CH ₃ | H | OH | H | H | H |
| 5-OH-indole | (CH ₂) ₃ CH ₃ | H | H | OH | H | H |
| 6-OH-indole | (CH ₂) ₃ CH ₃ | H | H | H | OH | H |
| 7-OH-indole | (CH ₂) ₃ CH ₃ | H | H | H | H | OH |

DETECTION OF SYNTHETIC CANNABINOIDS (CONTINUED)

increased blood pressure vomiting, seizures and hallucinations (PCC, Data). Predictably, analytical data show that “spice” use is unlikely to be detected using common urinalysis immunoassay screening kits^{1,5}. However, targeted MS analyses of blood and urine have demonstrated that several synthetic cannabinoids and their metabolites can be detected after use^{2,5}.

An often debated question in sport is whether cannabinoids are performance enhancing. Unquestionably, THC is illegal in the US, has been shown to adversely affect driving and other psychomotor skills and it has properties that may lead to strong psychological dependence. Consequently, the use of THC and cannabinoid products is banned in most anti-doping programs. It then logically follows that synthetic cannabinoid agonists would also be banned in anti-doping programs. However, a recent report from Germany indicated that synthetic cannabinoid agonists may not be a significant problem in sports⁶. In that study, urine specimens collected from 7,500 athletes were analyzed retrospectively for JWH-018 and its major metabolites with only two positive findings (<0.03% positivity rate). We found decidedly different results from a select group of athlete’s samples recently analyzed in our laboratory. During the summer and fall of 2010, several of our laboratory’s clients expressed concerns about synthetic cannabinoid use by student-athletes monitored in their anti-doping programs. As a consequence, a series of client samples that were reported negative for cannabinoids and other common performance enhancing drugs were de-identified and analyzed for synthetic cannabinoids.

High performance liquid chromatography was used to separate JWH-018, JWH-073 and their respective metabolites. Positive electrospray ionization and tandem mass

spectrometry analysis with multiple reaction monitoring data acquisition were used to identify and confirm the analytes. Criteria for identification of analytes were as follows: the retention time or relative retention time of each analyte was required to be within 3% or ± 0.006 , respectively, of the corresponding analyte in the calibrator; and ion ratios for the product ions derived from suspected analytes and internal standards in the donor specimens had to be within $\pm 20\%$ of the mean of those obtained from the corresponding analytes in the calibrator.

Twenty-three of the twenty-five samples tested positive for one or more of the synthetic cannabinoid metabolites. Parent JWH-018, JWH-073 and their respective 2-OH-indole, 7-OH-indole and 4-OH-indole metabolites were not detected (≥ 1 ng/mL) in any of the samples. By contrast, JWH-018-N-pentanoic acid, JWH-018-N-(5-OH-pentyl) and JWH-073-N-butanoic acid were detected in over 90% of the samples (Figures 2 and 3). Multiple samples contained the 5- and 6-OH-indole metabolites of JWH-018. The major indicators of JWH-018 use were its N-pentanoic acid, N-(5-OH-pentyl), 5-OH-indole and 6-OH-indole metabolites. Figure 3 demonstrates that although the 5, 6 and 7-OH-indole metabolites of JWH-073 were detected, they were only found in three, or fewer samples, and that the butanoic acid metabolite was the most prevalent indicator of JWH-073 use. The alarming positive rate (23/25 = 92%) may be partially attributable to the source of the samples. The samples were collected during routine anti-doping protocols, but the donors were suspected of spice use. However, the positive rate is dramatically different than that reported in other anti-doping settings⁶.

In that study, samples were selected randomly for synthetic cannabinoid testing and tested only for JWH-018 and metabolites. Additionally, spice products have received more legal attention in Europe than in the US which may have limited their availability and further explain the difference in detection rates.

In addition to the alarming 92% positive rate, Table 2 shows that all positive samples contained JWH-018-N-pentanoic acid, JWH-018-N-(5-OH-pentyl) and JWH-073-N-butanoic acid. These data indicated either use of multiple spice products or use of products containing both JWH-018 and JWH-073. Therefore, a series of products were purchased (Table 1) and analyzed for JWH-018 and JWH-073. As shown in Table 1, nearly one-half (5/11) of the products contained both synthetic cannabinoids. These data are somewhat contrasting to those of Hudson, 2009 who found that many of the products that they tested contained multiple synthetic cannabinoids, however, only one contained both JWH-018 and JWH-073³.

Our testing was limited to 25 specimens and there were suspicions that the athletes may have used spice products. Therefore, our finding may not be predictive of use by all athletes or by the general public. However, the results indicate that spice use should be a concern in the US and that spice products may contain multiple synthetic cannabinoids. Given the number of synthetic cannabinoid agonists available, that only five were recently Scheduled by the US Drug Enforcement Agency and the current paucity of scientific literature about their toxicity and pharmacokinetics, spice products should remain an anti-doping priority and a public health concern⁷.

Table 2. Combined Detection Summary

| JWH-073 | | JWH-018 | | | | | |
|----------|----------|----------------|----------|---------------|----------|-------------|----------|
| | | Pentanoic Acid | | 5-OH-pentanyl | | 6-OH-Indole | |
| Positive | Negative | Positive | Negative | Positive | Negative | Positive | Negative |
| 23 | | 23 | | 23 | | 19 | |
| 2 | | | 2 | | 2 | | 6 |

DETECTION OF SYNTHETIC CANNABINOIDS (CONTINUED)

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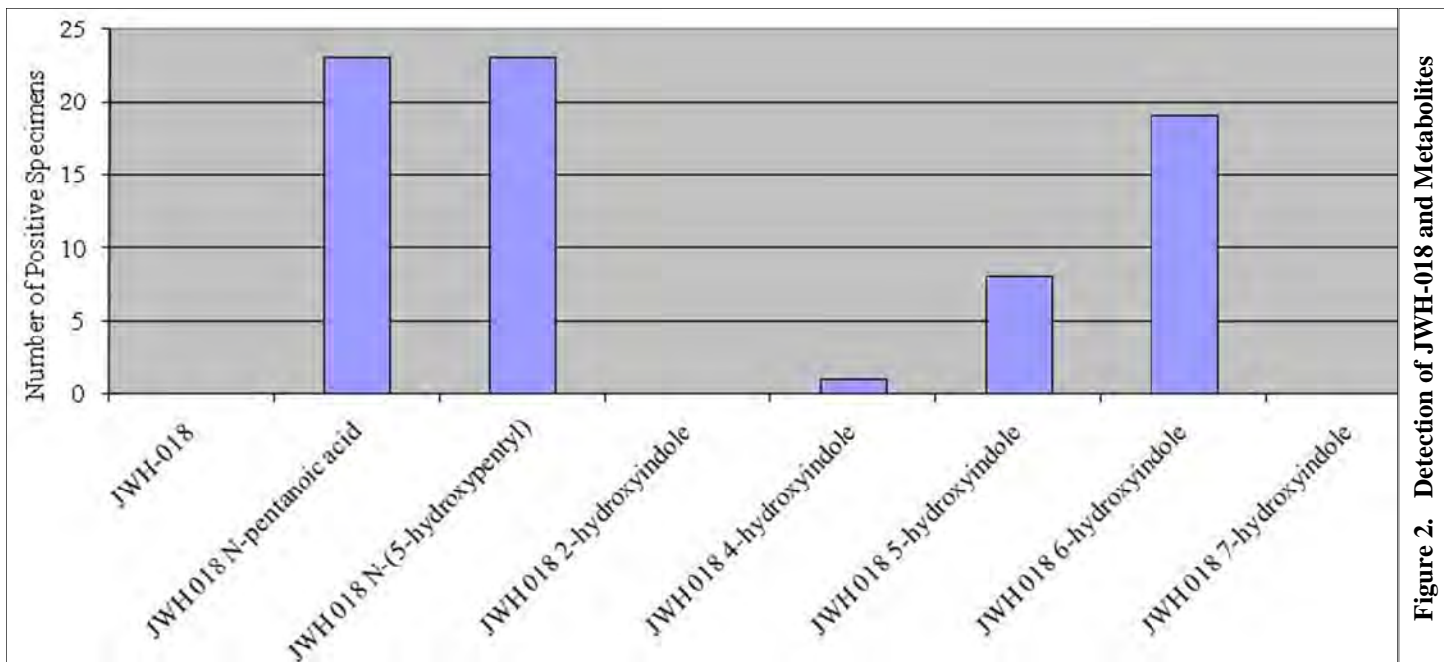


Figure 2. Detection of JWH-018 and Metabolites

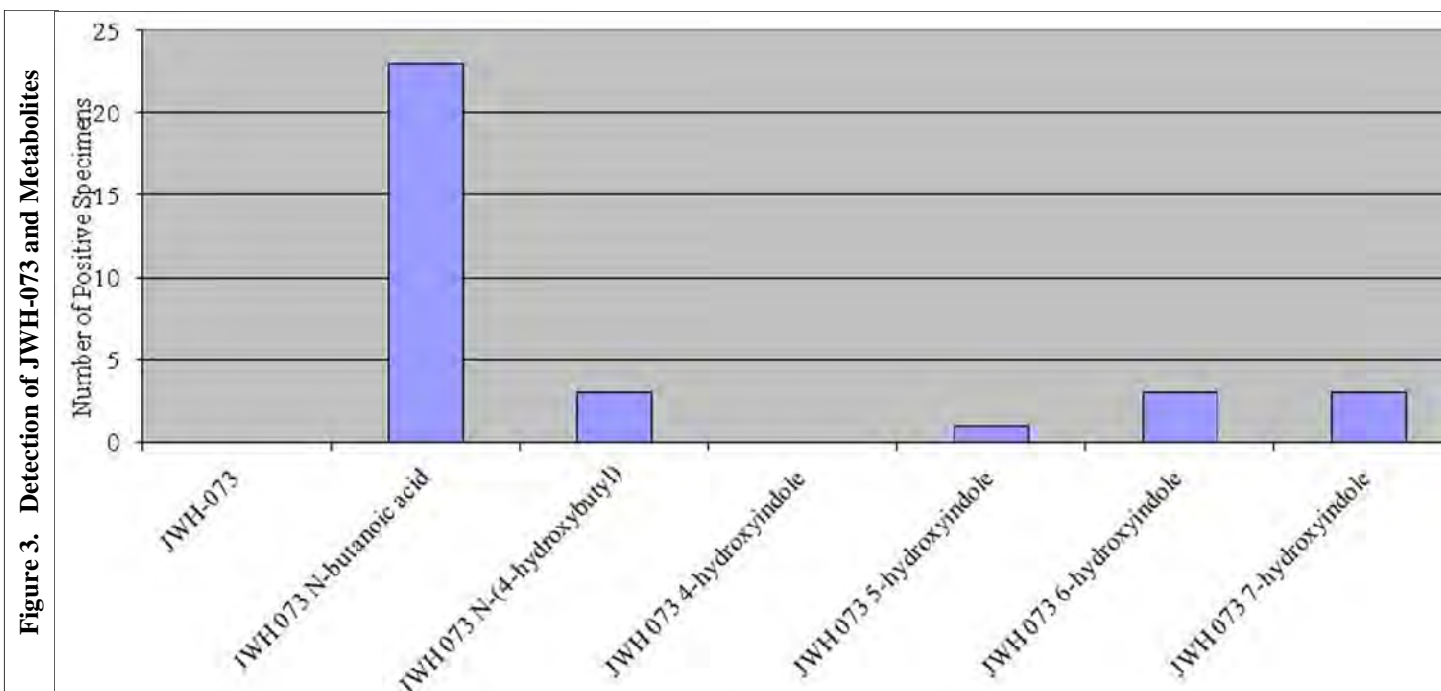
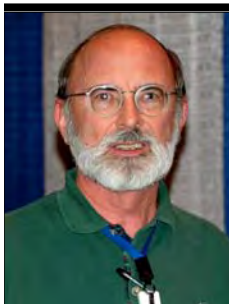


Figure 3. Detection of JWH-073 and Metabolites



CASE NOTES

Section Editor, **Matthew Barnhill, Ph.D., DABFT**

Send interesting "Case Notes" to Section Editor, Matthew Barnhill (mbarnhilljr@worldnet.att.net)

BATH SALTS: ANALYSIS OF THREE VERSIONS OF NEW STREET DRUGS

Submitted by **C. Clinton Frazee, NRCC-TC, Leonard Johnson, B.S., David Scott, MT (ASCP) and Uttam Garg, Ph.D., DABFT;**

Department of Pathology and Laboratory Medicine—Children's Mercy Hospitals and Clinics, and University of Missouri - Kansas City - School of Medicine

Introduction:

New designer drugs sold under the misleading name "Bath Salts" have been reported in cities around the U.S. Use of these products has resulted in significant morbidity and mortality, and has prompted many news stories (1-9). Although these drugs have been reported in Europe and Australia for the last many years, they have only recently gained widespread attention in the US. Through self-reporting, police observations and/or health care professional's reports, a number of clinical symptoms have been reported for those who ingest or snort these "Bath Salts". These symptoms include hypertension, tachycardia, vasoconstriction, hallucinations, psychosis, aggression, seizures and panic attack.

Initial findings indicate that the most commonly found drugs in these Bath Salt products are 3, 4-methyl-enedioxypyrovalerone (MDPV), 3,4-



Figure 1: Kush Blitz, XOXO, Tranquility

methylenedioxyamphetamines (mephedrone) and 4-methylmethamphetamine (mephedrone). Recently (January-February 2011) a Kansas City news station conducted an investigation about these products (2, 6). Their investigative team acquired three different versions of "Bath Salts" named Tranquility, Kush Blitz and XOXO (Figure 1) from area convenience stores/gas stations. Tranquility was received as a small, round, screw cap container. Kush Blitz and XOXO were both received as square (~3"x3"), foil, zip-lock packets. Tranquility and Kush Blitz both contained a finely ground white powder (Figure 2). XOXO contained two blue and white colored capsules with a finely ground white powder located inside the capsules (Figure 3).

The aforementioned Bath salts were submitted to our laboratory for drug analysis. We performed substance analyses on these products using gas chromatography/mass spectrometry (GC/MS). MDPV and methylone were found to be present either

individually or in combination depending on the specific *brand name* tested. Another structurally related drug, mephedrone, has been reported in similar products. In this report, we present our observations and the mass spectra of MDPV, methylone and mephedrone.

Methodology/Instrumentation:

Approximately 1.0 mg of "Bath Salt" from each packet was used for analysis. Each 1.0 mg of "Bath Salts" was dissolved in 10 mL methanol. Two mL of each methanolic extract was then added to an extraction tube containing a buffer salt mixture of sodium chloride, sodium carbonate and sodium bicarbonate (1:1:12); an extraction solvent mixture of methylene chloride, cyclohexanes and isopropanol (9:9:2); and 3.4 ug/mL promazine as an internal standard. Following extraction, each organic extract was concentrated to dryness using nitrogen gas and a hot water bath and then reconstituted with 500 uL hexanes:ethanol (1:1) for GC/MS analysis.

MDPV, Methylone and mephedrone certified reference standards were purchased from Cerilliant Corporation and used to establish in-house m/z spectra and RRT information.

An Agilent 6890N GC/5973 mass spectrometer was used for testing. The GC was equipped with a Zebtron ZB-1, 15m X 0.25mm X 0.25um and the instrument conditions listed in Table 1 were used for the analyses.

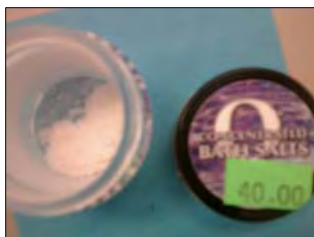
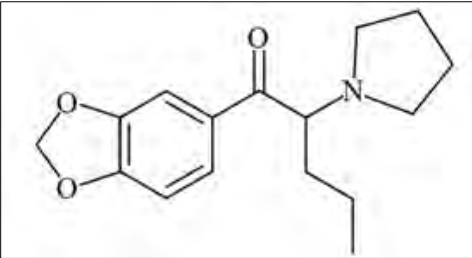
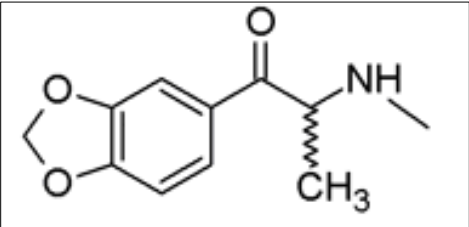


Figure 2:
Tranquility



Figure 3:
XOXO

CASE NOTES: BATH SALTS (CONTINUED)

| | | | |
|------------------------|------------|--|---|
| Initial oven temp. | 90 °C | BATH SALT I.D.: | TOXICOLOGY RESULTS: |
| Initial time | 1.0 min. | Tranquility | MDPV detected |
| Ramp 1 | 32 °C/min. | Kush Blitz | MDPV detected; Methylone detected |
| Temp 2 | 170 °C | XOXO | Methylone detected |
| Time 2 | 2.0 min. | Table 2: Drugs detected in different products | |
| Ramp 2 | 20 °C/min. | | |
| Final temp. | 270 °C | | |
| Final time | 9.5 min. | | |
| Injector temp. | 250 °C | | |
| Detector temp. | 280 °C | | |
| Purge on time | 0.5 min. | | |
| Column pressure | 5.0 psi | | |
| Table 1: GC Conditions | |  |  |
| | | Figure 8: MDPV | Figure 9: Methylone |

Results and Discussion:

In the three “Bath Salt” products submitted to our toxicology laboratory, we found MDPV and methylone individually in two packets, and one product had both (Table 2). A GC/MS chromatogram of MDPV, methylone and mephedrone is shown in Figure 4. Electron impact ionization mass spectra of these drugs are shown in Figures 5-7 (see pages 19,20).

MDPV (Figure 8) is the methylenedioxy analog of pyrovalerone, and is structurally related to cathinone, an active alkaloid stimulant found in the Khat plant. MDMA (Ecstasy) has a similar chemical structure. The DEA recently published a bulletin on MDPV to provide the chemistry, pharmacology and legal status of the drug (11). Its pharmacological effects mimic that of methamphetamine and MDMA.

Methylone (Figure 9) is a benzylic ketone analog of MDMA (12). Methylone was patented in 1996 as an antidepressant, but never made the FDA’s list of approved drugs. It was the main ingredient of the designer drug “Explosion” which was found and reported in 2005 in the Netherlands. Since then it has been reported in many countries. Its pharmacological effects are also similar to MDMA.

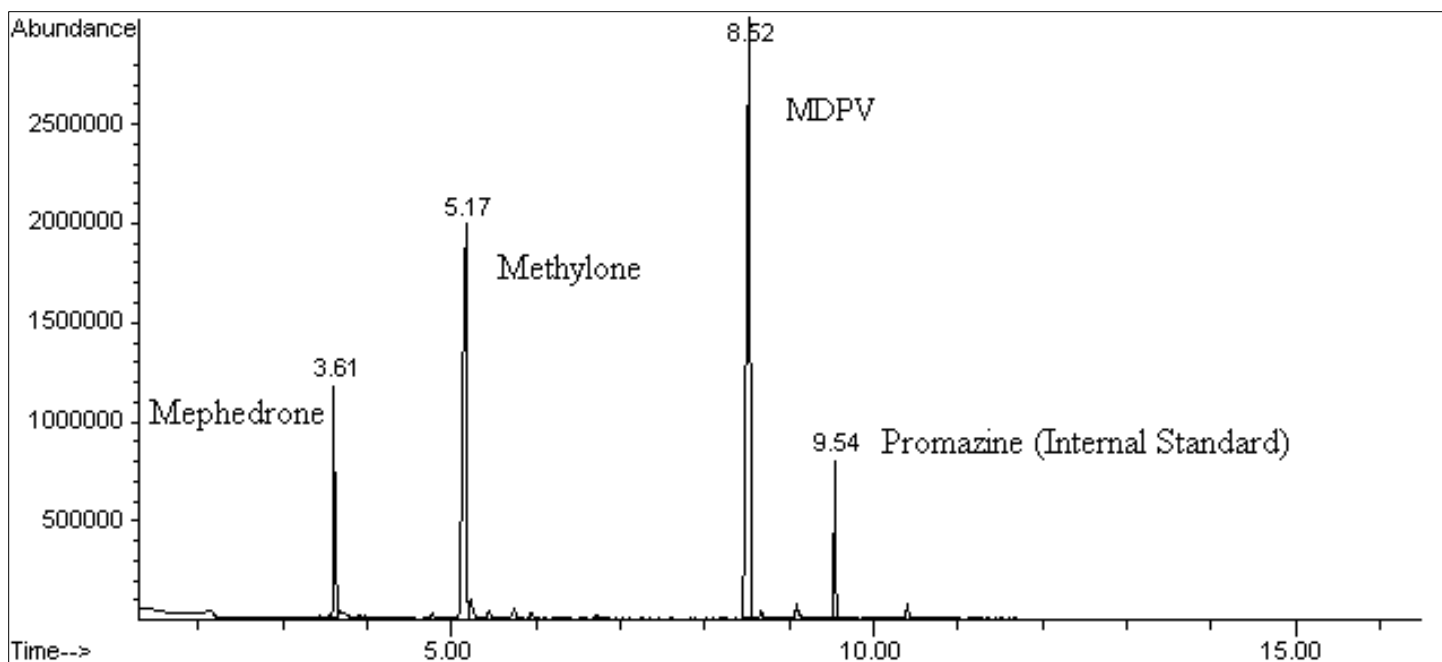


Figure 4: GC-MS Chromatogram of MDPV, Methylone and Mephedrone

CASE NOTES: BATH SALTS (CONTINUED)

Mephedrone (Figure 10) has stimulant effects like methamphetamine. A case of extreme agitation and death after the use of mephedrone has recently been published (13).

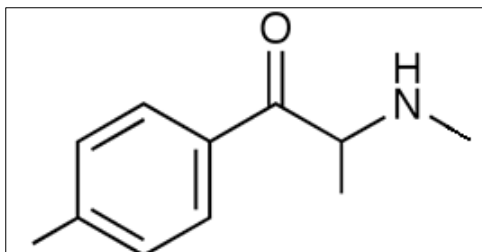


Figure 10: Mephedrone

At the time of this report, psychoactive-stimulants are being sold in the U.S. under the name “Bath Salts” at convenience stores, truck stops, tattoo parlors and tobacco shops. They are sold under a wide array of names including Ivory Wave, Sextacy, Purple Wave, Vanilla Sky, Gloom, Charge+, Pure Ivory, Purple Rain, Ocean Burst, Whack, Hurricane Charlie, Red Dove, white Dove, Crush, Bolivian Bath, Fly, White Rush, Tranquility, XOXO and Kush Blitz.

Due to high morbidity and mortality related to these products, many news stories have appeared within the recent months (1-9). White House Drug Czar Gil Kerlikowske said that as of February 01, 2011, “The American Association of Poison Control Centers has received 251 calls related to ‘Bath Salts’ so far this year, compared to 236 such calls to poison centers during all of 2010” (8). ABC news reported a Mississippi man who took his skinning knife and slit his face and stomach repeatedly after using “Bath Salts”. The news also reported that the family of a 21-year-old Louisiana man says he cut his

throat and ended his life with a gunshot after using “Bath Salts”(9).

The U.S. Department of Justice, Drug Enforcement Administration, Special Testing and Research Laboratory in Dulles, VA used Fourier Transform Infrared, GC-MS, NMR and UV to characterize a powder seized from a driver who was incoherent, confused and failed a field sobriety test (10). The powder was identified as MDPV.

In conclusion, widely available and accessible products marketed as “Bath Salts”, but containing psychoactive and amphetamine like drugs, have recently appeared in the US market. Efforts are being made to make these products illegal. In fact, Florida and Louisiana have already declared these products illegal (1, 7). Declaring these drugs as illegal, of course, is no guarantee that they will cease to be circulated in the illicit drug market. Because they can cause significant morbidity and mortality, it is important for the clinical and forensic toxicology laboratories to be aware these stimulants and include them in their list of detectable compounds.

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CASE NOTES: BATH SALTS (CONTINUED)

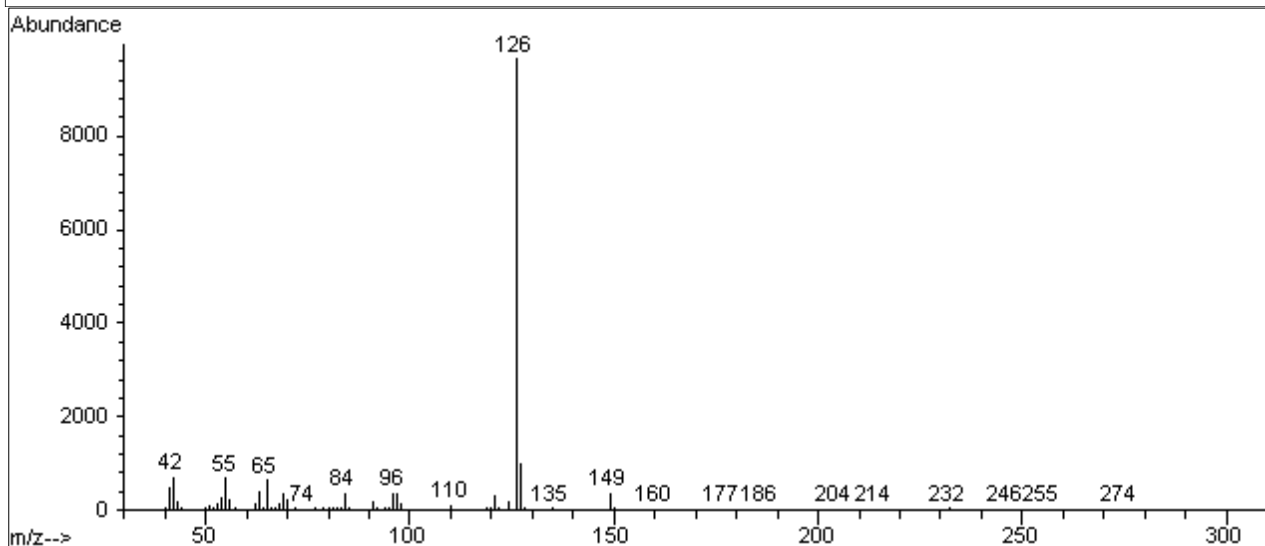


Figure 5a: Electron impact ionization mass spectra of MDPV

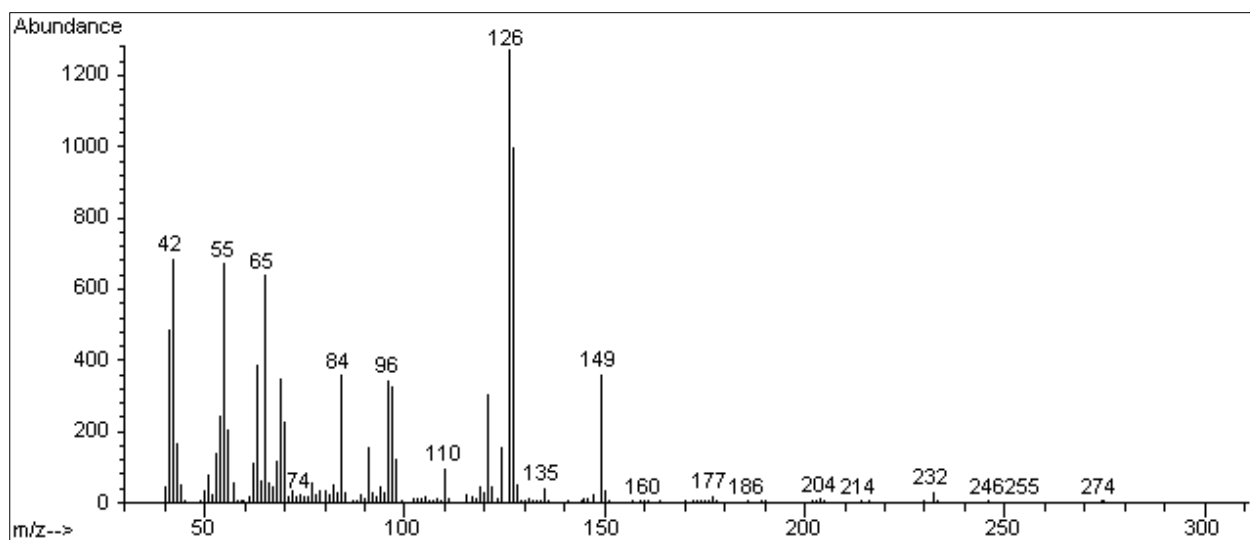


Figure 5b: Electron impact ionization mass spectra of MDPV (Zoomed in to show ions detail)

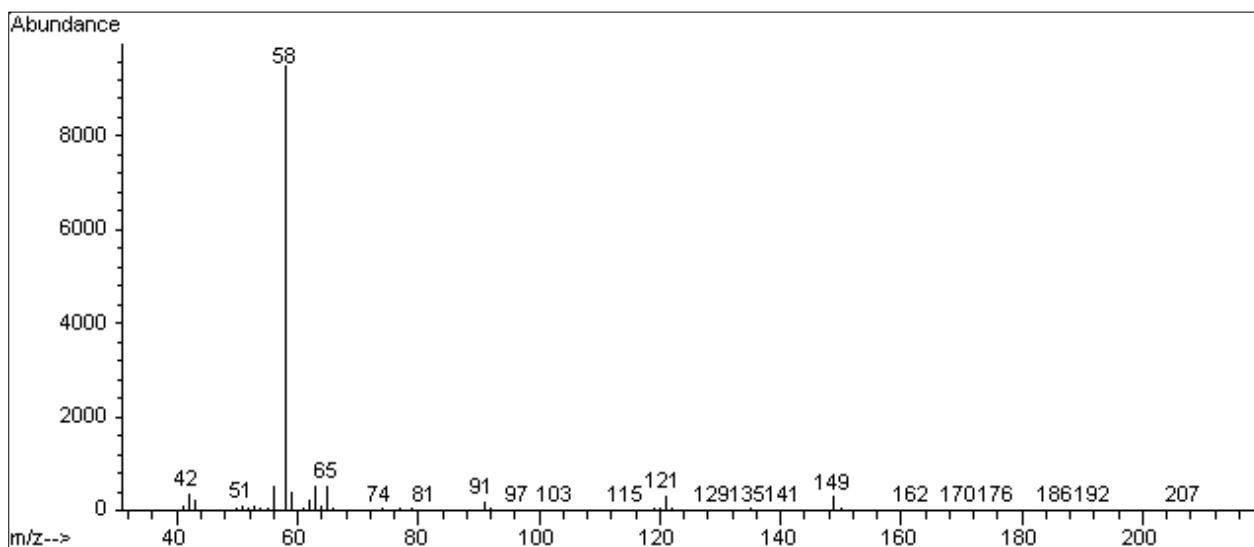


Figure 6a: Electron impact ionization mass spectra of Methylone

CASE NOTES: BATH SALTS (CONTINUED)

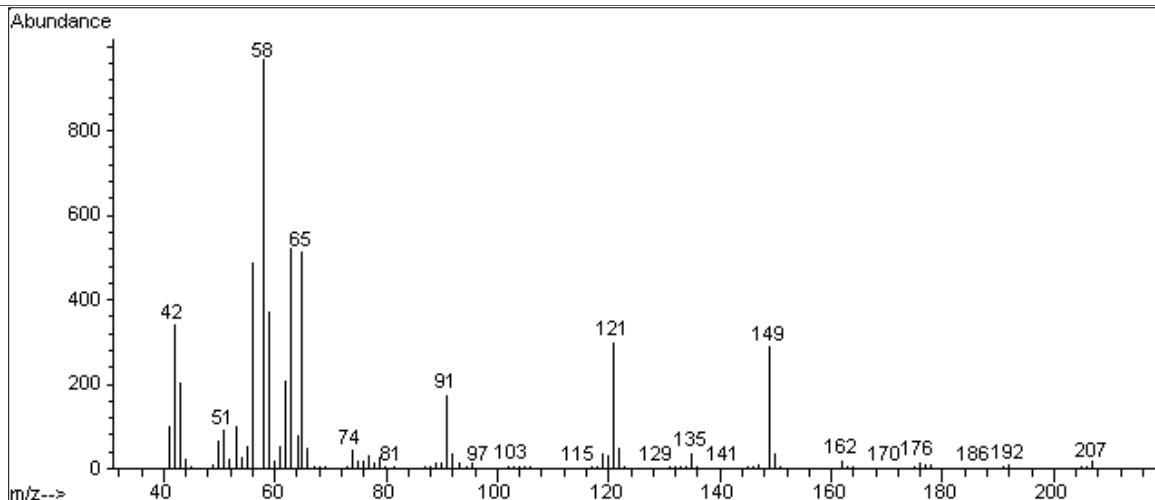


Figure 6b: Electron impact ionization mass spectra of Methylone (Zoomed in to show ions detail)

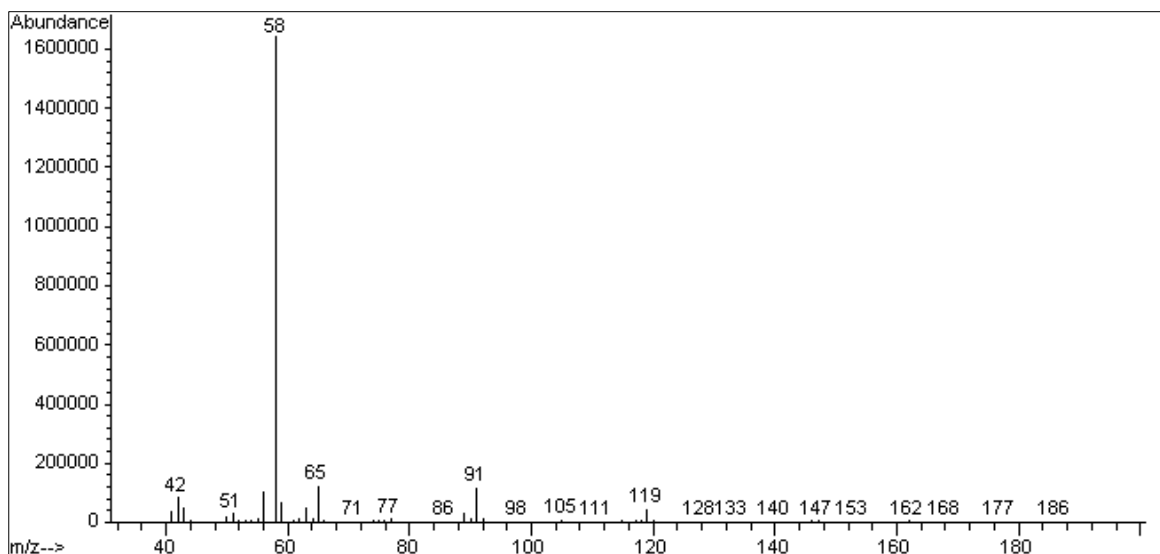


Figure 7a: Electron impact ionization mass spectra of Mephedrone

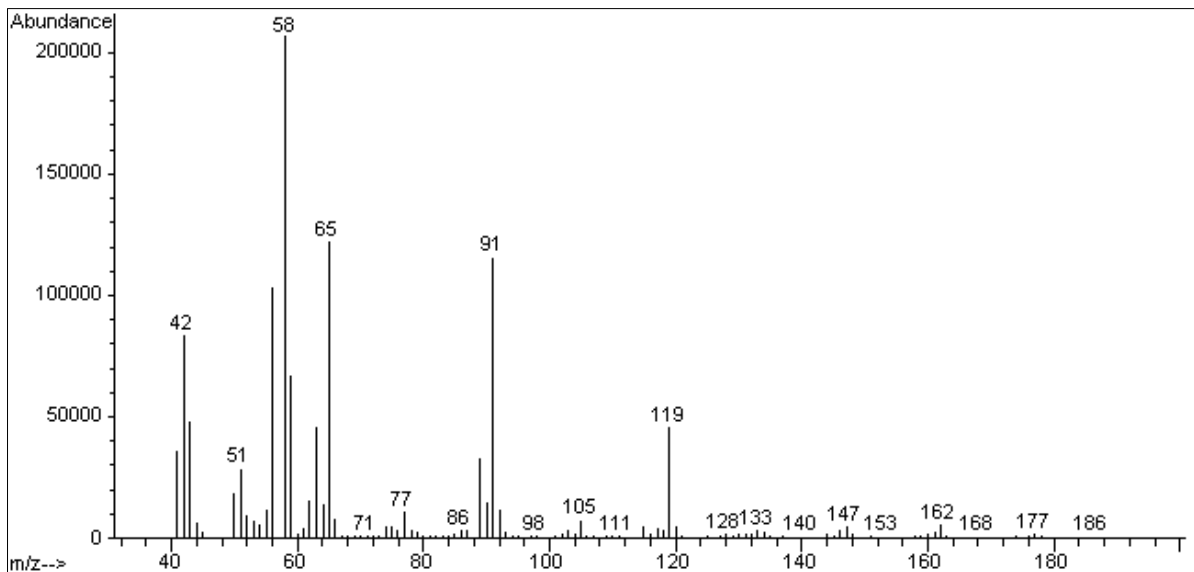


Figure 7b: Electron impact ionization mass spectra of Mephedrone (Zoomed in to show ions detail)



NEW DRUGS

Section Editor, Dan Anderson, M.S., FTS-ABFT, DABC (danderson@coroner.lacounty.gov)

NEW DRUG: meta-Chlorophenylpiperazine (mCPP)

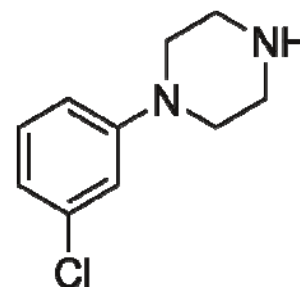
Submitted by **Kevin G. Shanks**, kshanks@aitlabs.com, AIT Laboratories, Indianapolis, IN 46241

1-(3-chlorophenyl) piperazine, or mCPP, is a piperazine metabolite of the drugs Trazodone (Desyrel[®]), Nefazodone (Serzone[®]), Mepiprazole (Psigodal[®]) and the discontinued drug, Etoperidone [1]. The piperazine class of drugs is a broad class of analytes that share a piperazine functional group (a six-membered ring containing two opposing nitrogen atoms). Many of these drugs act as antidepressants, antihistamines, antipsychotics, urologicals, and other recreational drugs of abuse [1]. mCPP is also a recreational drug that is available in tablet form, which is consumed orally, or powder form, which is snorted or injected [2]. Pharmacologically, mCPP acts as a serotonin receptor agonist, which leads to antidepressant and anxiolytic prop-

erties, as well as hallucinogenic side effects [3,4]. In routine casework, mCPP has been detected in 266 postmortem cases and whole blood concentrations ranged from 5-1,325 ng/mL. Tissue (liver) specimen concentrations ranged from 1,722-27,831 ng/g. In every case, mCPP was detected with the presence of either Nefazodone (2 cases) or Trazodone (264 cases). Analytical reference standards can be purchased from Cerilliant Corporation (C-089), Sigma-Aldrich, Inc. (125180), and/or Toronto Research Chemicals, Inc. (C379590). A deuterated analog is also available from Toronto Research Chemicals, Inc. (C379592). mCPP is chemically related to other illicit piperazine drugs, such as BZP and TFMPP.

General Information

| | |
|-------------------|--|
| IUPAC Name: | 1-(3-chlorophenyl) piperazine |
| Common Name: | 1-(m-chlorophenyl) piperazine; mCPP; m-CPP; 1-3-CPP |
| Appearance: | Research chemical is a pale orange oil or diluted in methanol. Illicit drug is sold in tablet form in a variety of colors. |
| Chemical Formula: | C ₁₀ H ₁₃ ClN ₂ |
| Molecular Weight: | 196.6 g/mol |
| CAS Number: | 6640-24-0 |



Pharmacology

| | |
|----------------------|---|
| Half-Life: | 2-7 hours |
| Elimination: | Eliminated in the urine as a hydroxylated metabolite and hydroxylated glucuronide conjugate [5]. |
| Mechanism of Action: | Acts as an agonist for 5-HT receptors as well as the serotonin transporter protein; also has affinity for the α -adrenergic receptors. |

Analytical Toxicology

| | |
|---------------------------------|---|
| LC-ToF Screening Analysis: | Following a protein precipitation extraction with acetonitrile; Limit of detection (LOD) is 1 ng/mL. Theoretical accurate [M+H] ⁺ is 197.0846 (Figure 1). |
| LC/MS/MS Confirmatory Analysis: | Following a protein precipitation with acetonitrile. Linearity 5 ng/mL – 2,000 ng/mL; Quadratic curve fit; mCPP d8 as an internal standard Quantitative MRM is 197.16 \Rightarrow 118.20 Qualitative MRM is 197.16 \Rightarrow 43.91 (Figure 2) |

| | |
|-----------------------|---|
| Also can be detected: | by both GC/NPD & GC/MS with a routine basic drug screen: Chlorobutane basic drug extraction with acidic back extraction. Detection on both the GC/NPD and GC/MS GC/MS ions 154, 196, 156, 138 (Figure 3) Relative retention time Bupropion, mCPP , Meperidine, Diphenhydramine Quantitative method validation not performed |
|-----------------------|---|

NEW DRUG: meta-Chlorophenylpiperazine (mCPP) (Continued)

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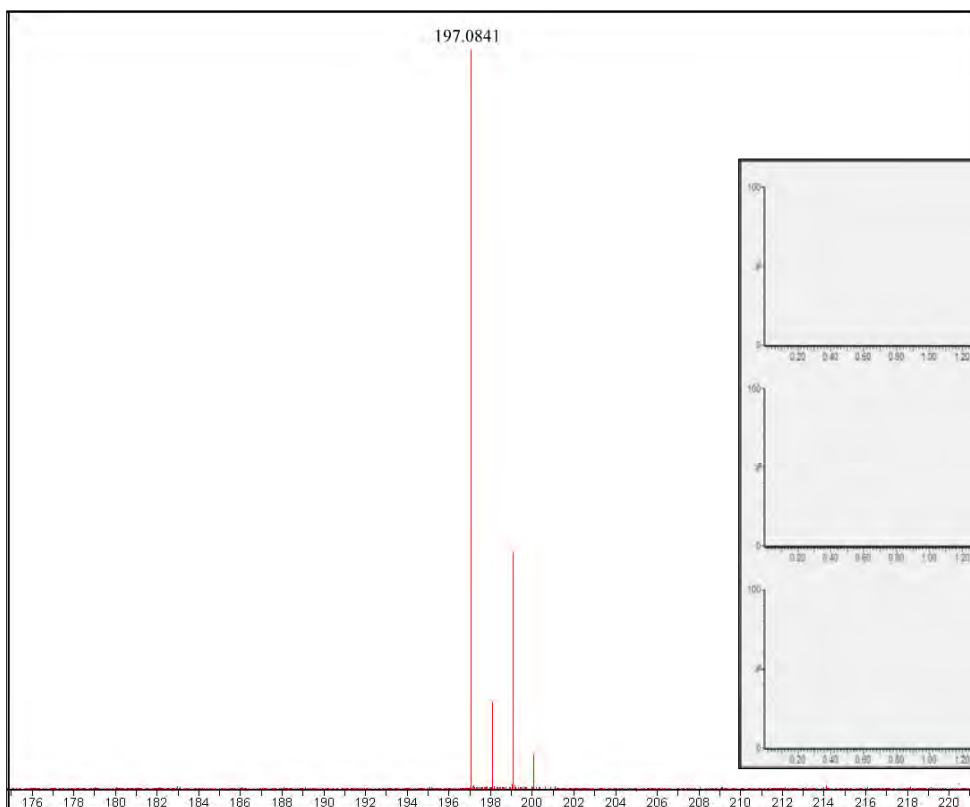


Figure 1 - LC-ToF Extracted Ion Spectrum (XIS) of mCPP in Post-mortem Whole Blood

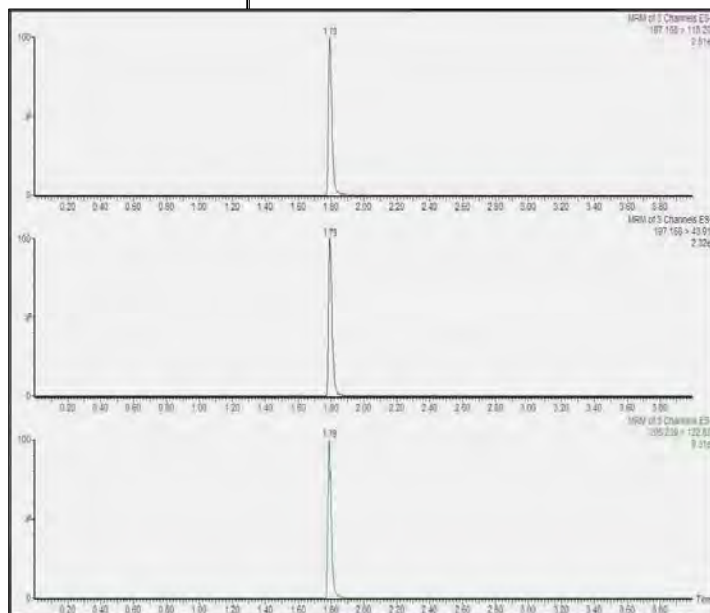


Figure 2 -
Confirmatory
Analysis of mCPP
by LC/MS/MS –
Postmortem Whole
Blood Specimen
(26.8 ng/mL)

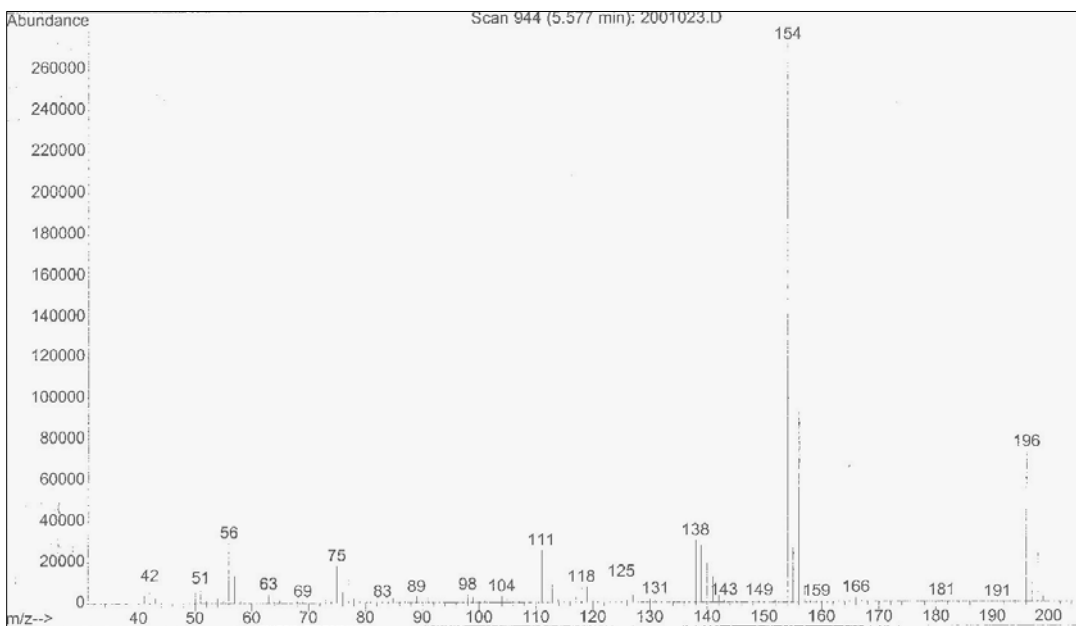


Figure 3 – EI Mass
Spectra of mCPP

NEW DRUGS

NEW DRUG: Asenapine (Saphris®)

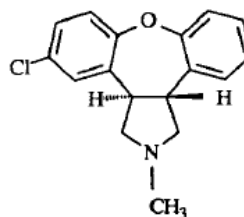
Submitted by **Dan Anderson** DAnderson@coroner.lacounty.gov, **Sarah deQuintana**, Sdequintana@coroner.lacounty.gov, and **Brian Waters**; Los Angeles County Department of Coroner, Los Angeles, CA

Asenapine (Saphris®) is a new atypical antipsychotic, second generation drug developed for the treatment of schizophrenia and acute mania associated with bipolar disorder. The drug is similar to other FDA approved atypical antipsychotic drugs currently in use such as Aripiprazole,

Paliperidone, Ziprasidone, Clozapine, Quetiapine, Olanzapine, and Risperidone. Asenapine, initially approved in the United States in August 2009, is manufactured by Merck (formerly Schering-Plough) as 5- and 10-mg sublingual tablets that are to be taken twice a day.

General Information

IUPAC Name: (3a*S*,12*bS*)-5-Chloro-2,3,3a,12*b*-tetrahydro-2-methyl-1*H*-dibenz[2,3:6,7]oxepino[4,5-*c*] pyrrole
 Chemical Formula: C₁₇H₁₆ClNO
 Molecular Weight: 285.77 g/mol
 Available: Sigma-Aldrich®
 Catalog A-7861: Asenapine Maleate, C₁₇H₁₆ClNO · C₄H₄O₄, FW=401.84 g/mol
 CAS Number: 65576-45-6



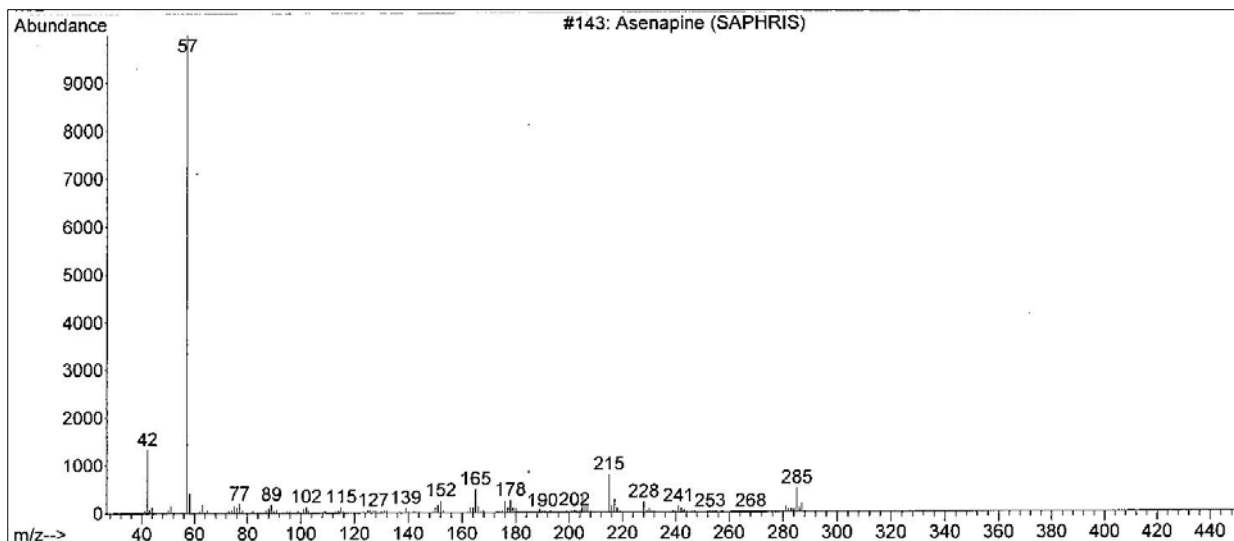
Saphris® (asenapine)

Pharmacology

Half-Life: ~ 24 hrs
 C_{max}: ~ 4 ng/mL @ ave T_{max} 1 hour, peak plasma 0.5 -1.5 hours, steady-state attained ~ 3 days
 V_d: ~20 - 25 L/kg
 Bioavailability: Sublingual- 35%, highly plasma proteins bound (95%)
 If swallowed, low bioavailability (<2%) caused by extensive first-pass metabolism
 Metabolism: Glucuronidase- N+-glucuronide; others included N-desmethylenapine, N-desmethylenapine N-carbamoyl glucuronide
 Elimination: 90% of the dose was recovered ~50% in urine and 40% in feces
 Drug Interactions: Paroxetine, Fluvoxamine

Toxicology

Extraction: Recovered by routine n-butyl chloride liquid:liquid basic drug extraction, including an acid back extraction.
 Detection: GC/NPD: Limit of detection ~ 20 ng/ml / GC/MS SIM: ~5.0 ng/ml
 GC/MS: Ions **57**, 215, 285 m/z
 Elution order: Nortriptyline, Cyclobenzaprine, **ASENAPINE**, Sertraline, Citalopram
 NMS Labs²: Analysis performed on Serum/Plasma and Urine, since April 2010.
 Detection by LC/MS/MS with a calibration range 0.10-15 ng/ml.
 15 cases were analyzed, 0.71-5.6 ng/ml (n=9)

**References**

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2. Personal Communication with Laura Labay, NMS Labs.



TOXICOLOGY - BITS & PIECES

Section Editor, **J. Robert Zettl, MPA** (jrzettl1@msn.com)

AAFS/SOFT JOINT DRUGS & DRIVING COMMITTEE

Submitted by **Jennifer Limoges, M.S., Committee Chair**

The SOFT/AAFS Drugs & Driving Committee continues to be very active. We just held an excellent Special Session at AAFS, coordinated by Laura Liddicoat. Plans for the SOFT/TIAFT meeting in September include a Drugs & Driving Special Session coordinated by Michelle Spirk, and a proposed workshop on the role of oral fluid in DUID. Both will feature national as well as international speakers. Please check out the committee's area on the SOFT website, located under "SOFT Activities" - "Drugs and Driving". An extensive list of scientific literature is provided, as well as other relevant DUID information. Member feedback and suggestions are welcome and appreciated.

NATIONAL SAFETY COUNCIL, HIGHWAY TRAFFIC SAFETY DIVISION, COMMITTEE ON ALCOHOL AND OTHER DRUGS (CAOD)

Submitted by **Laura Liddicoat, B.S., NSC Secretary**

The Executive Board of the National Safety Council's Committee on Alcohol and Other Drugs met Sunday afternoon, February 20, 2011 at the American Academy of Forensic Sciences annual meeting in Chicago, IL. The full committee convened Monday morning February 21, 2011. Committee officers for 2011 are:

- Dennis Canfield – Chair
- Randall Beaty – Vice Chair
- Laura Liddicoat – Secretary
- Mack Cowan –Immediate Past Chair

This year marks the 75th anniversary of the CAOD. Current activities include recommendations for a model per se law for driving under the influence of drugs (DUID), and plans for a survey of laboratories performing DUID test-

ing that will serve as a basis for an update to the previously published "Recommendations for Toxicological Investigation of Drug Impaired Driving" (Farrell LJ, Kerrigan SBA, Logan BK; Journal of Forensic Sciences; 2007 Sep).

The 20th Robert F. Borkenstein Award was conferred on Barry K. Logan, Ph.D. Monday evening. Following past tradition, Dr. Dubowski presented the award and provided insights into the various aspects of Dr. Logan's professional career. To quote Dr. Dubowski, "Barry, a native of Scotland, has rightfully become recognized the worldwide for his professional contributions, especially in the area of alcohol and drug impaired driving. Indeed, if there exists today a worthy successor to the legendary international leaders in forensic toxicology as

Doctors Robert Forney Sr., Irving Sunshine, and Alan Curry, that person is Barry Logan."

To be a candidate for this prestigious award, individuals must have a minimum of 25 years active service in the area of alcohol/drugs and traffic safety, contributed to that field to a degree that their achievements are nationally recognized and have a minimum of 20 years of active and productive involvement as a volunteer with the National Safety Council.

To access CAOD policies, previous Borkenstein Award recipients or learn more about the committee go to www.nsc.org and type in "CAOD" under the NSC search engine or link to the CAOD home page directly at http://www.nsc.org/get_involved/divisions/Pages/CAODwebpage.aspx.

Visit the SOFT-TIAFT 2011 website for current meeting updates!

www.toxicology2011.org

AAFS - TOXICOLOGY SECTION

- PROGRAM OVERVIEW -

*Submitted by Ken Ferslew, Ph.D., DABFT**Outgoing Section Chair*

There were some very interesting workshops and presentations at the 63rd Annual Meeting of the American Academy of Forensic Sciences, February 21st through 26th, 2011 at the Hyatt Regency in Chicago, IL. The week started off with two workshops sponsored by the Toxicology Section. "Tips and Tricks to Improve the Interpretive Value of Postmortem Toxicology" was presented on Monday the 21st. It was a collaborative effort of a number of our toxicology members (Michelle Merves, Jayne Thatcher, Rob Middleburg, Graham Jones, William Anderson, Ruth Winecker in her Jeri Roper Miller disguise, and Dan Anderson) and a few of our pathology colleagues (Carl Schmidt and Dennis Wickham).

Tuesday followed with an all day workshop on "K2 and Beyond: A Synthetic Cannabinoid Primer" with everything you might want to know about the synthetic cannabinoids by Sherri Kacinko, Lindsay Reinhold, Heather Harris, John Huffman, Marilyn Huestis and Barry Logan. I guess the most intriguing workshop was the one put on by the Jurisprudence Section entitled "Blood Alcohol Concentration (BAC) Evidence: Extrapolation, Interpretation, and Testimony in the Post - NAS Era". Many toxicologists, including myself attended this one as the workshop faculty (mostly attorneys) presented information on how toxicologists should present their BAC data and interpretations. I really do believe the Academy needs to address the issue of workshop topics and interdisciplinary presentation. Even if a toxicologist may not agree with a jurisprudence perspective to this topic it was a learning experience to teach us just how the other side thinks.

The Toxicology Poster Session on Wednesday night had numerous posters on a wide variety of topics. Several methodology papers were presented on different toxins (opiates, amphetamines, CN, pesticides, inhalants, fatty acids, anesthetics, benzodiazepines, plant toxins, etc.) using numerous techniques (SPE, LC/MS/MS, capillary electrophoresis, ELISA, IR, AA) and the impact on everything from medical examiner to DUI cases.

Platform presentations were divided into sessions covering "New Drugs, Methods and Uncertainty", "Driving Under the Influence", a "Multidisciplinary Session: Pathology/Biology/Toxicology" and "Pediatric Postmortem Toxicology". In the "New Drugs, Methods and Uncertainty" session I thought the "Detection of Various Performance Enhancing Substances in Specimens Collected from Race Horses in Illinois: A Five -Year Experience" was an interesting application of toxicological testing to the horse racing industry especially since we were having our meeting in Chicago.

There were several papers on drug testing in hair and the uncertainty in that type of testing presented by Jeffrey Walterscheid, Marc LeBeau, Peter Stout, and Jeri Roper Miller. There was even a paper by our British colleagues on their "Investigation of the Effect of Vinegar on Oral Fluid Drug Testing: Effects on Immunoassay Screening". You never know what they may try next to interfere with drug testing. The "Driving Under the Influence" sessions were divided into two sections with one organized by Laura Liddicoat covering Current Research Related to Drug-Impaired Driving with presentations by Christine Moore, Alain Verstraete,

James Zacny and Amy Miles. The second section had numerous papers covering cannabinoids and their impact on driving. While the Multidisciplinary Session: Pathology/Biology/Toxicology has papers from both sections of the Academy, they usually are more of the medical examiner types of work. Some were on interpretation like the Toxicology and Pathology of 149 Methadone-Related Deaths. Some were case reports like the Fatal Intoxication Due to Trihexyphenidyl or Levetiracetam (Keppra) and Suicide. One was even on an experimental model to test the in vitro adsorption of CO and HCN in pooled blood. The Pediatric Postmortem Toxicology session wrapped up the meeting on Friday the 26th. It was moderated by Rob Middleberg and Nikolas Lemos with presentations on pediatric fatalities by J. Scott Denton, C. Andrew Robinson, Thomas A. Andrew and Lauren Marinetti. This session is interactive and the case presentations unique so the only way you can benefit from them is to attend and contribute to the discussions. It is well worth your time. This year there was an added presentation by Bruce Goldberger on the impact of opium to the children of Afghanistan. It was evidence of a human exposure many of us could not even imagine.

There is something for every type taste in toxicology. Presentations are both oral and more formal in the platform presentations to more informal and interactive in the poster session. Though I cannot cover all the topics and specifics of the Academy meeting because I missed several presentations due to other obligations, these are some of the highlights that caught my attention and added to my knowledge base in toxicology.

AAFS - TOXICOLOGY SECTION PROGRAM
- TECHNICAL REVIEW / ANOTHER VIEW -
Submitted by Barry Levine, Ph.D., DABFT

The scientific session for the Toxicology Section began on Wednesday night with a poster session. Papers from all aspects of forensic toxicology were presented. Among the papers displayed were the analysis of psychedelic amphetamines by LC/MS/MS, the use of L-2-aminothiazoline-4-carboxylic acid as a marker of cyanide poisoning, the detection of inhalants in impaired drivers in San Diego, stability and reproducibility of carbohydrate deficient transferrin analysis and the uncertainty in simulator solution preparation for evidential breath testing devices.

Platform sessions began on Thursday morning and consisted of papers from a variety of topics. Sherri Kacinko from NMS Labs presented some data on the identification of metabolites of JWH-018 and JWH-073 in urine specimens. Specifically, a monohydroxy and a dihydroxy metabolite were tentatively identified by LC/MS/MS from urine specimens from known users. Unfortunately, reference standards for these compounds are not yet available. There were two presentations on *Salvia Divinorum*. Wayne Jones compared free morphine and amphetamine concentrations in postmortem femoral blood from drug deaths and venous blood concentrations in DUID cases. With both drugs, an overlap in drug concentrations between the 2 groups was observed. Marc LeBeau discussed the uncertainty in hair drug analysis, emphasizing that there can be significant differences due to individual hair growth and the hair collection process. This discussion was followed by 2 papers from RTI on cocaine and metabolite concentrations in different hair types.

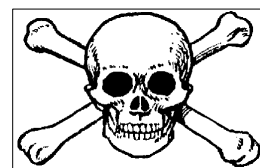
The Thursday afternoon session began with a brief presentation by Rob Middleberg on the activities of SWGTOX. The remainder of the afternoon session was devoted to issues related to drugs and driving. Alain Verstraete began with 2 presentations on epidemiological studies and on different attempts by European countries to categorize drugs in terms of their potential effects on driving. Christine Moore reported on the National Roadside Survey and the use of oral fluid in DUID cases. There were also reports of a case or series of cases on how drugs such as tizanidine, oxycodone, Spice and hydrocodone affect driving.

On Friday morning, there was a joint session with the Pathology-Biology Section. Fifteen papers were presented, primarily case reports and other postmortem studies. Among the highlights was a paper presented by Dennis Canfield of the FAA indicating the potential in vitro adsorption of cyanide in blood exposed to hydrogen cyanide in a desiccator. A similar exposure to carbon monoxide failed to produce the same effect; however, Dr. Canfield cautioned that more work was required to confirm this observation. Dr. Clarissa Krinsky presented a paper on fentanyl postmortem redistribution and possible inter-laboratory variation in fentanyl analysis. There were two presentations on the use of beta-hydroxybutyrate in the diagnosis of diabetic and alcoholic ketoacidosis. A cautionary paper was presented on the potential misuse of stomach contents drug concentration. Johan Duffou discussed a case where the presence of morphine in the stomach contents of a heroin user was interpreted as an oral poisoning rather than distribution through the enterohepatic cir-

ulation. This interpretation led to a criminal trial for homicide.

The afternoon session featured the Annual Lectureship in Toxicology. The guest speaker was Ms. Deborah Blum, a Pulitzer Prize winner and author of *The Poisoner's Handbook*. In her book, she recounted the conversion of the coroner system in New York City to a medical examiner's system in 1918. She accomplished this through the development of two of the major characters in the process, Dr. Charles Norris, the first medical examiner and Dr. Alexander Gettler, the first toxicologist. In her talk, she discussed the political and other pressures that attempted to influence both men. She also outlined how well the two worked professionally despite the significant differences in their socio-economic status.

The customary final Toxicology Session of the meeting was the Pediatric Toxicology session moderated by Rob Middleberg. Five papers were presented. One paper presented an accidental intoxication with methadone. There were two papers presenting very high blood morphine concentrations in two infants administered morphine in palliative care. Lauren Marinetti then presented data on codeine concentrations in twins who died after receiving apparently appropriate dosages. The potential role of pharmacogenomics in the unexpected concentrations was discussed. The final paper was presented by Bruce Goldberger who shared data collected from Afghan children exposed to opium use through second hand smoke and third hand environmental contamination.



DRUG TESTING ADVISORY BOARD
U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES
DRUG TESTING PROGRAM

Submitted by Janine Cook, Ph.D.

DTAB Conception

The Substance Abuse and Mental Health Services Administration (SAMHSA) Center for Substance Abuse Prevention (CSAP) Drug Testing Advisory Board (DTAB) had its conception in the early 1980's when concerns were beginning to build around laboratories performing workplace drug testing and whether the technology was scientifically sound enough to serve as the basis for hiring and firing decisions. In response to these concerns, the National Institute of Drug Abuse (NIDA) designed a study to evaluate the analytical performance of drug testing laboratories and found that overall performance varied significantly across laboratories.

In 1984, NIDA established an informal working group known as the Laboratory Accreditation Working group (LAW) to discuss solutions. Discussions centered on expanding the control of workplace drug testing to include government-managed lab certification. In March 1986, President Reagan's Commission on Organized Crime issued a final report on crime in America and discussed the role of drug use as a fuel for crime. The Commission recommended the use of drug testing in prisons, schools, and especially, the workplace and urged the President to create the Federal Workplace Drug Testing Program. A week later, NIDA's Division of Applied Research convened a meeting with major workplace stakeholders [corporate executives, unions, health organizations, insurance companies etc.] to discuss how corporate America could deal with the growing problem of drugs in the workplace. There was a general consensus that drug testing could be a useful tool to identify workers who had a drug abuse problem and needed treatment. The LAW began drafting President

Reagan's Executive Order and the original Mandatory Guidelines for Federal Workplace Drug Testing Programs in the summer of 1986. In September 1986, President Reagan signed Executive Order #12564. With that order, the LAW resumed its efforts to develop the first Guidelines, which were issued in February 1987. In March 1987, there was a meeting between several members of Congress and representatives of the Reagan Administration. At this meeting, it was decided that US Dept. of Health & Human Services (HHS), in coordination with the Department of Justice (DOJ) and the Office of Personnel Management (OPM), would have oversight of the Program. At that time, management of the Program resided at NIDA. This oversight decision was codified in Public Law 100-71, which was passed in July 1987. Two requirements of this law were to coordinate the development of the comprehensive drug testing plans for each of the 180 federal agencies, including how and who would be tested, and to rewrite the 1987 Guidelines to include a laboratory certification program and to publish a draft in the Federal Register.

Again, the advice and counsel of the informal LAW group, which continued to work in anonymity, were invaluable during this process. In 1988, the Guidelines, which now included laboratory certification, were finalized and published. Another major meeting between the NIDA and stakeholders, including the laboratories, medical review officers (MRO), diagnostic manufacturers, etc., was convened in 1989. The result of this meeting was a NIDA monograph (Finkle BS, Blanke RV, Walsh JM. Technical, Scientific, and Procedural Issues of Employee Drug Testing: A Consensus Report, DHHS Pub. No. (ADM)90-1684, U.S. Dept. of Health and Human Services, 1990) which refined some of the de-

tails of the 1988 Guidelines. About this time, the LAW group was formalized into an Advisory Committee under the Federal Advisory Committee Act (FACA). In late 1989, HHS was reorganized, which resulted in the Alcohol, Drug Abuse and Mental Health Administration (ADAMHA) being abolished and the Program being transferred to the newly created CSAP within SAMHSA. The DTAB first convened in 1990, and the rest is history.

DTAB Function

The DTAB is a Federal Advisory Committee and as such is governed under the FACA. The DTAB functions according to its charter, which is reauthorized every two years by the SAMHSA Administrator. Per its charter, the DTAB reports to the SAMHSA Administrator and provides advice based on its ongoing review of the direction, scope, balance, and emphasis of the Agency's drug testing activities. The Board is also charged with reviewing SAMHSA's National Laboratory Certification Program (NLCP) for Federal Workplace Drug Testing Programs (Program) as required by Public Law 100-71 and as described in the Mandatory Guidelines for Federal Workplace Drug Testing Programs (Guidelines). The DTAB also shapes the future of Federal Workplace Drug Testing Programs by recommending areas for emphasis or de-emphasis, new or changed directions, and the mechanisms or approaches for implementing recommendations. To date, the Board has made 35 recommendations, of which about 95% have been approved and implemented. In addition, the DTAB reviews the science related to alternate specimen matrices and new drugs of abuse and the methods necessary to detect their presence. Management and

HEALTH & HUMAN SERVICES-DRUG TESTING PROGRAM (CONTINUED)

support services for the DTAB are provided by the staff of the Division of Workplace Programs (DWP).

Through the DTAB, SAMHSA seeks to improve the quality of services for forensic workplace drug testing, assess the science and technology used in drug analyses, improve the quality of related laboratory services and systems for drug testing, generate standards for laboratory certification for Federal workplace drug testing programs, and guide national policy in these areas. Because the DTAB membership is composed of subject-matter experts, the DTAB is the vehicle by which DWP ensures the scientific sufficiency of the Federal Workplace Drug Testing Program.

DTAB Membership

Per the current charter, the DTAB membership includes a non-voting Designated Federal Official (DFO) who is responsible for convening the DTAB meetings and preparing the agendas, a nonvoting Chair selected by the SAMHSA Administrator, 10 voting members, and 2 nonvoting ex-officio members who are employees of the U.S. Government. The two ex-officio members are representatives from the Food and Drug Administration and the Department of Transportation and were identified by their respective agencies to serve on the DTAB. The 10 voting Board members are appointed by the SAMHSA Administrator and serve as Special Government Employees for their term, which is typically four years. Of the 10 appointed voting members, 8 are recognized as experts in either analytical forensic toxicology, in specimen collection procedures for regulated drug testing programs, or in interpreting drug testing results. These eight members represent a variety of disciplines related to forensic drug

testing and have experience in such areas as the forensic drug testing laboratory, academic research, toxicological research, and the Medical Review Officer community. In addition, one member was specifically chosen to represent users of HHS-certified drug testing laboratories and drug-free workplace programs and processes while another member was chosen to represent individuals tested in Federal or federally-regulated workplace drug testing programs.

DTAB Meetings

The DTAB strives to convene four times a year, provided there is material for discussion. Currently, four meetings are planned for fiscal year 2011. Advance notice of each meeting is given to the public in the form of a Federal Register Notice. DTAB meetings may be face-to face and held on-site at SAMHSA or convened via web conferencing. Meetings may be open to the public, closed, or partially open. For open meetings, the public is welcome to attend either on-site or to listen via web conferencing. Registration is required for open and partially open meetings for logistical purposes. For partially open meetings, the public may only attend the open session; attendance by the public at closed sessions is not permitted.

Sessions of DTAB are closed when proposed guidance is discussed that will ultimately be available to the public in the form of a Federal Register Notice. All closed DTAB meetings are approved in advance by the SAMHSA's Office of General Counsel representative in accordance with the Government in the Sunshine Act (5 U.S.C. 552b(c)) and the Federal Advisory Committee Act.

Per FACA rules, each open session meeting of the DTAB has a public comment period, usually a half hour in length, in which members of

the public are welcome to provide a statement. Each statement is reflected in the meeting minutes and reproduced in the transcript.

The DTAB held its first meeting of 2011 on January 26-27. At the first day open session, Federal drug testing updates were provided by the Department of Transportation, the Department of Defense, the Nuclear Regulatory Commission, and the Federal Drug-Free Workplace Programs. In addition, updates were given on the Mandatory Guidelines for Federal Workplace Drug Testing Programs. The Board was provided with background information on the topics that it will be discussing in the future, including alternate matrices, the electronic custody and control form, and the medical review officer certification. For the open session of the second day, a historical perspective of oral fluid as a drug testing matrix was presented followed by the current perspective of the oral fluid in drug testing, including specimen, drug analytes and their cut-offs, methodologies, proficiency testing, best practices experiences, and oral fluid drug testing data. In the second day closed session, the Board met to discuss proposed revisions to the Mandatory Guidelines.

DTAB Website

The DTAB website is located at <http://nac.samhsa.gov/DTAB/index.aspx>. Information posted on the website includes the current DTAB charter, the current membership roster, and historical meeting information, including the Federal Register notice announcing the meeting, the agenda, the minutes, the transcript, and presentations for each meeting.

A special thanks is extended to Dr. Michael Walsh for providing the historical perspective on the DTAB.

AMERICAN BOARD OF FORENSIC TOXICOLOGY (ABFT) NEWS

Submitted by Marina Stajic, Ph.D., DABFT, President

ABFT was granted re-accreditation by the Forensic Specialties Accreditation Board (FSAB).

At the ABFT annual meeting in February 2011, the following Directors were elected to a three year term (July 1, 2011 – June 30, 2014):

- Yale Caplan, Ph.D., D-ABFT
- Daniel Isenschmid, Ph.D., D-ABFT
- Elizabeth Spratt, M.S., D-ABFT
- Ruth Winecker, Ph.D., D-ABFT

The above re-elected and newly elected Directors join the following Directors currently serving their respective terms:

- Frederick Fochtman, Ph.D., D-ABFT
- Bruce Goldberger, Ph.D., D-ABFT
- Graham Jones, Ph.D., D-ABFT
- Loralie Langman, Ph.D., D-ABFT
- Barry Logan, Ph.D., D-ABFT
- Robert Middleberg, Ph.D., D-ABFT
- Susan Mills, M.S., FTS-ABFT
- Jeri Roper-Miller, Ph.D., D-ABFT
- Theodore F. Shults, J.D., M.S., Public member
- Marina Stajic, Ph.D., D-ABFT

The Board officers elected in February 2011 to a one year term (July 1, 2011 – June 30, 2012) are:

- President Marina Stajic, Ph.D., D-ABFT
- Vice President Bruce Goldberger, Ph.D., D-ABFT
- Secretary Daniel Isenschmid, Ph.D., D-ABFT
- Treasurer Robert Middleberg, Ph.D., D-ABFT

ABFT is pleased and proud to congratulate its first President and a founding father, Dr. Kurt Dubowski, on being designated as the R.B.H. Gradwohl Laureate of 2011, the most prestigious honor of the American Academy of Forensic Sciences.

CONGRATULATION to our colleagues who have successfully met all the requirements and joined the ranks of ABFT certificants since December 2010:

- Marc LeBeau, Ph.D., D-ABFT
- Nikolas Lemos, Ph.D., D-ABFT
- Robert Johnson, Ph.D., D-ABFT
- Jeff Walterscheid, Ph.D., D-ABFT
- Nichole Bynum, FTS-ABFT
- Gary Davis, FTS-ABFT
- Greg Jellick, FTS-ABFT
- Paige Long, FTS-ABFT
- Madeline Montgomery, FTS-ABFT
- Diana Swanson, FTS-ABFT

CONGRATULATIONS to the staff of the following laboratories on successfully meeting all the ABFT requirements for laboratory accreditation:

- Forensic Toxicology Laboratory, University of Florida, College of Medicine, Gainesville, Florida
- Forensic Toxicology Laboratory, Onondaga County Center for Forensic Sciences, Syracuse, New York

REMINDERS:

Effective January 1, 2011, all accredited laboratories are required to submit an annual accreditation fee of \$ 3500 regardless of whether it is a mid-cycle or on-site inspection year. A separate application fee will no longer be required from accredited laboratories.

Effective January 1, 2010, all ABFT accredited laboratories will be required to subscribe to both the FTC (Toxicology) and the T-series proficiency tests of the College of American Pathologists (CAP). Laboratories will be required to complete all challenges for the FTC set for which the laboratory has established, validated methods. All of the laboratory's usual screening and confirmation tests will need to be completed for the T-series, plus those quantitative challenges for which the laboratory has routine methods. Results must be re-

turned to CAP within the reporting period. In addition, laboratories must subscribe to the CAP AL1 Whole Blood Alcohol program or comparable program(s) with an equivalent number of challenges for ethanol and related volatiles. Laboratories are encouraged to continue participation in any other proficiency test programs to which they currently subscribe.

ABFT Board of Directors has restructured the certification application, re-certification application and continuing education fees. Effective January 1, 2009, a non-refundable fee of \$150 will be applied to all new applications, replacing the previous \$300 fee. The re-certification fee of \$300 is no longer required every five years. Instead, a fee of \$100 is required with the annual submission of continuing education credits. Certificants will still need to submit a re-certification application every five years in order to remain in good standing.

ABFT no longer has the USA/Canada residency requirement for certification. All other requirements remain the same. The examination is administered (in English only!) twice each year, at the American Academy of Forensic Sciences (AAFS) Annual Meeting and at the Society of Forensic Toxicologists (SOFT) Annual Meeting. Additionally, a candidate may request to have an examination administered at a different location under the direction of a member of the Board of Directors. We welcome and encourage our international colleagues to consider applying for ABFT certification. Please visit www.ABFT.org for more information.



MEMBER NEWS

KURT M. DUBOWSKI, PH.D., DABFT
2011 R.B.H. GRADWOHL LAUREATE OF THE
AMERICAN ACADEMY OF FORENSIC SCIENCES

Kurt M. Dubowski was presented the Gradwohl Laureate Medallion, February 23, 2011 at the Annual Business Meeting of the AAFS. The Gradwohl Medallion is the most prestigious honor of the AAFS. The award capped Dr. Dubowski's career and dedication to forensic science and his service to the AAFS and Toxicology, which began when he was instrumental in the formation of the Academy in 1948-1950. Complete details of his life and career were presented in the September 2010 ToxTalk (Vol 34, Issue 3) and abbreviated as follows.

Dr. Dubowski's career has focused on forensic science since his first appointments in 1950 as Norwalk police chemist and scientific investigator with the Fairfield County, CT, Coroner. His forensic science career includes a five year term as the first state criminalist of Iowa and a triplet of official Oklahoma state positions since the 1960's: Chairman of the Board of Tests for Alcohol and Drug Influence; State Director of Tests for Alcohol and Drug Influence; and Scientific Director of the Oklahoma Department of Public Safety/Oklahoma Highway Patrol. Along the way, he also founded the toxicology laboratory of the Oklahoma State Medical Examiner's Office and the forensic laboratory of the Oklahoma State Bureau of Investigation

– both now independent units. He was a charter member of the Indiana University/Bloomington Borkenstein Course faculty.

Dr. Dubowski's research interests and contributions have been in both medical and forensic sciences, encompassing development of innovative methodology, human studies, and clinical and forensic applications of chemistry and toxicology as reflected in his many publications. His o-toluidine method for body fluid glucose determination, developed in 1961, became for the next decade the most widely used clinical chemistry procedure worldwide and it was the first Reference Method adopted by the FDA. Following publication in 1962 in *Clinical Chemistry*, it became a "citation classic" and is one of the most widely cited publications in the field of clinical chemistry. Another article in the *Journal of Forensic Sciences* by Mason and Dubowski on the forensic aspects of breath-alcohol analysis became a second "citation classic". Methods for blood and tissue-alcohol analysis developed by him have been used by clinical and forensic laboratories throughout the world. In the mid seventies, Dr. Dubowski recognized the need for the documentation of qualifications for forensic scientists

working in the legal system and was pivotal in the creation of the American Board of Forensic Toxicology serving as the Board's first president and continuously as a Director until his retirement and the attainment of Emeritus status.

Dr. Dubowski is Past President of the American Academy of Forensic Sciences, of the American Association for Clinical Chemistry, and of the American Board of Forensic Toxicology; and is President Emeritus of the American Board of Clinical Chemistry. He has been a member of the National Safety Council's Committee on Alcohol & Other Drugs since 1950; and is a past member of the Transportation Research Board, National Research Council, National Academy of Sciences. His work on the development and evaluation of tests for drugs-of-abuse in biological specimens led to consultation for many government agencies. He was a charter member of the Drug Testing Advisory Board of the U.S. Department of Health and Human Services. Dr. Dubowski is easily one of the most inspirational figures to embrace the forensic toxicology and the forensic science communities for the last three score years. He truly represents the ideals of the Gradwohl Medallion.



MEMBER NEWS

**DAN ANDERSON, M.S., FTS-ABFT, D-ABC
AWARDED AAFS-TOX SECTION- RAY ABERNATHY AWARD FOR 2011**



Daniel T. Anderson, MS was the 2011 American Academy of Forensic Sciences, Toxicology Section, recipient of the Ray Abernathy Award. The Ray Abernathy Award is given to a person in recognition of having a distinguished career as an outstanding practitioner in Forensic Toxicology.

Dan received his B.S. degree in Zoology with an emphasis in Forensic Biology from Colorado State University in Ft. Collins, Colorado. He continued his graduate studies at the University of New Haven, West Haven Connecticut where he earned a Masters Degree in Forensic Science in 1990.

Dan has been a toxicologist for 20 years and is currently the Supervising Criminalist/Toxicologist in the Forensic Science Laboratories for the Los Angeles County Dept. of Coroner's Office, Los Angeles, California, a position he has held since 1995.

Previously, Dan was employed with the Ventura County Sheriff's Dept. as a Criminalist / Toxicologist. He was an Adjunct Professor at California State University - Los Angeles where he taught the subject of Forensic Toxicology to students obtaining their Master's Degree, served as an instructor at the California Criminalistics Institute in Sacramento, CA, and at the Midwest Forensics Resource Center in Ames, IA.

Dan holds certifications from the American Board of Forensic Toxicology as a Forensic Toxicology Specialist, is a Diplomate of the American Board of Criminalistics and is certified by the California Department of Public Health as a Forensic Alcohol Analyst.

Dan has affiliations to many forensic science organizations, including the California Association of Toxicologists (CAT), American Academy of Forensic Sciences (AAFS), California Association of Criminalists (CAC), and serves on the Executive Board of the Society of Forensic Toxicologists (SOFT) and is the current SOFT Secretary.

Dan routinely attends and teaches at numerous workshops for the AAFS, SOFT, FBI, ASCLD-LAB.

He has given over 25 scientific presentations, authored numerous publications, and peer reviewed articles for both the Forensic Science International and the Journal of Analytical Toxicology, including serving as the 2008 Special Editor of JAT.

Dan testifies in court as an expert witness and is a firm believer of becoming involved, while mentoring his scientific staff, and promoting research within the laboratory.

Dan was introduced by **Thomas Noguchi, M.D.**, Former Chief Medical Examiner Coroner, Los Angeles County, CA and **Lakshmanan Sathyavagiswaran, M.D.** Chief Medical Examiner Coroner, Los Angeles County, CA.

**KEEP
COMMUNICATION
PATH OPEN**

It has become increasingly important for SOFT members to keep any changes in email contact information current with the SOFT Office. Many important messages are dispersed throughout the year via email broadcasts; including updates of National matters, annual meeting news, important reminders and deadlines regarding SOFT business.

Any changes of employment, email or mailing address should be communicated by phone or email to the SOFT Office, or can be updated directly by the member at the on-line database.

2011 MEMBERSHIP DUES

The deadline date for the annual SOFT membership dues for 2011 was February 15. There are still many SOFT members with remaining unpaid dues. Those with unpaid dues or those who are unsure if their annual dues are paid should call the SOFT Office (toll free 888-866-7638) for a confirmation of how to proceed.

The annual Directory will soon be distributed by mail in a print format, using current contact information gleaned from the returned annual dues forms.

NEW WEBSITE DETAILS

The SOFT website holds an amazing amount of valuable information, and should be a tool frequently used by toxicologists.

- A complete scientific abstract collection from past annual meetings is available at the main index for review and download.
- The complete ToxTalk newsletter archive is available at the main index of the SOFT home page.
- The tab titled "Toxilinks" should be investigated by all SOFT members, as it is a virtual treasure trove of toxicology related information, resources, and links to other related websites.

MEMBER NEWS

MICHELE MERVES, PH.D.
AWARDED AAFS TOX SECTION - 2011 IRVING SUNSHINE AWARD!

Dr. Michele Merves is the 2011 recipient of the American Academy of Forensic Sciences Toxicology Section Irving Sunshine Award for outstanding student research in forensic toxicology.

She received her B.S. degree in Chemistry with high honors from Eckerd College in St. Petersburg, Florida. She continued her graduate studies at the University of Florida College of Medicine in the Interdisciplinary Program in the Biomedical Sciences with a concentration in Toxicology. She obtained her doctoral degree in 2007 studying under Dr. Bruce Goldberger.

She is currently the Assistant Laboratory Director at the Pinellas County Forensic Laboratory in Largo, Florida. Her duties include the supervision of the toxicology laboratory; conducting analyses in the area of post-mortem and human performance forensic toxicology; providing continuing education for staff as well as the surrounding community; and developing new analytical methodology for use in the laboratory.

Her doctoral research involved the detection of drugs and drug



Shelly Merves, Ph.D.

metabolites in exhaled breath. Her dissertation title was "Exhaled breath as an alternative matrix for alcohol and drug detection". This area of research is new and rapidly evolving, and presented significant analytical challenges.

Her initial studies with propofol and cotinine have produced valuable proof-of-concept data regarding the disposition of drugs and drug metabolites in exhaled breath. These data were used to support grant proposals to governmental agencies for extramural funding.

She has co-authored seven book chapters, eleven peer-reviewed journal articles and thirty-three abstracts. Aside from her student research in the laboratory, she has been very productive in other areas. For example, she has presented her research findings at meetings of the Society of Forensic Toxicologists, the American Academy of Forensic Sciences and the College on Problems of Drug Dependence. Shelly is a member of the American Academy of Forensic Sciences, the Society of Forensic Toxicologists and The International Association of Forensic Toxicologists. She is also an ad hoc reviewer for the Journal of Ana-

lytical Toxicology and a peer reviewer for the National Institute of Justice's Research and Development in Forensic Analysis of Trace Evidence Committee. These are remarkable activities and accomplishments considering her young age and limited time practicing in the field.

In addition to her clinical and research activities in the laboratory, her academic activities included the mentoring of young students in the area of forensic toxicology. While working with Dr. Goldberger, Shelly mentored 10 undergraduate and graduate students. Shelly previously served as a mentor for all students, interns and volunteers in the laboratory, and was a Clerkship Lecturer for the University of Florida College of Medicine, responsible for teaching all third-year medical students the clinical utility of urine drug testing in medicine.

Shelly has received several awards and honors. These include the American Academy of Forensic Sciences Toxicology Section's June K. Jones Scholarship, the Society of Forensic Toxicologist's Educational Research Award, and the highly prestigious University of Florida Alumni Graduate Fellowship.

INVITATION TO CAT'S SPRING MEETING IN NAPA VALLEY
MAY 6-7, 2011

The California Association of Toxicologists (CAT) extend an open invitation to their Spring Meeting in Napa Valley, May 6-7, 2011, hosted by Redwood Toxicology Laboratory.

The Friday session will include an overview of the toxicology of emerging designer drugs and discussions regarding analytical approaches for detection.

The Saturday session will focus on general toxicology issues related to analysis and interpretation of drug test results in alternative matrices.

Sessions are conducted by nationally and internationally renowned toxicologists.

REGISTRATION DEADLINE
IS APRIL 14, 2011

For more information, please contact:

- Sumandeep Rana, Meeting Host, (srana@redwoodtoxicology.com)
- or
- Victor Uralets, Co-Host (vuralets@redwoodtoxicology.com).

MEMBER NEWS

BARRY LOGAN, PH.D., DABFT
PRESENTED WITH THE BORKENSTEIN AWARD FROM NSC



INTRODUCTION OF BARRY K. LOGAN, Ph.D.

FOR THE 2011 NATIONAL SAFETY COUNCIL ROBERT F. BORKENSTEIN AWARD

By Kurt M. Dubowski, Ph.D., LL.D., DABCC, DABFT (Condensed)

Dr. Barry K. Logan is the 20th recipient of the National Safety Council's (NSC) Robert F. Borkenstein Award. The Award recognizes persons whose outstanding contributions through a lifetime career of service in the field of alcohol, drugs and traffic safety have been nationally recognized as consistent with the ideals and achievements of the late Professor Borkenstein. Barry's extensive contributions have been in four of the five Award areas: (1) alcohol education; (3) human factors; (4) technology and toxicological procedures involving both alcohol and other drugs; and (5) action programs.

Barry received his undergraduate education at the University of Glasgow in Scotland, graduating in June 1982 with a B.Sc. (Honors) degree in chemistry. His graduate education was in physical, biological and forensic sciences in the Department of Forensic Medicine and Science, University of Glasgow, leading to his Ph.D. degree in Forensic Toxicology in 1986.

Barry is the Director of Forensic Services at NMS Labs and Executive Director of the Frederick Rieders Family Renaissance Foundation. Previously, he held positions as the Washington State Toxicologist (1990-2008), Clinical Assistant Professor of Laboratory Medicine at the University of Washington School of Medicine (1990-present) and Director of the Forensic Laboratory Services Bureau of the Washington State Patrol (1999-2008). Perhaps one of his most well-known activities has been as director of the Robert F. Borkenstein Course on Alcohol and Highway Safety at Indiana Uni-

versity (IU), and the companion course The Effect of Drugs on Human Performance and Behavior. He is also a Visiting Scholar in the Department of Criminal Justice, at IU/Bloomington.

Research on a variety of forensic science subjects has been a career-long priority for Barry. At both his University of Washington and his present NMS positions, Barry has provided postgraduate Research Associate positions for a number of doctoral toxicologists in training. He has authored eighty-five peer reviewed articles on analytical toxicology, interpretive toxicology, alcohol and drug impaired driving and drug effects on human behavior and performance, and has published twenty-three articles in non-peer reviewed media. In addition to his own publications, Barry serves on editorial boards of major journals and performs peer-reviews for many scientific journals.

Barry is a prolific presenter at scientific meetings worldwide on topics in the fields of analytical, post-mortem, human performance and interpretive toxicology as well as workplace alcohol and drug testing issues. He has served as chair, co-chair, or member of scientific program committees for meetings of The American Academy of Forensic Sciences (AAFS), Society of Forensic Toxicologists (SOFT), The International Association of Forensic Toxicologists (TIAFT) and International Council on Alcohol Drugs and Traffic Safety (ICADTS).

Barry is a contributing member of many professional organizations. He is the first chair of the Forensic Toxicology Council (FTC), the current AAFS Treasurer, on the Board of

Directors of the American Board of Forensic Toxicology and has been active in many other professional organizations including SOFT, TIAFT, ICADTS, the International Association for Chemical Testing, the Canadian Society of Forensic Sciences and the American Society of Crime Laboratory Directors.

A member of the Committee on Alcohol and Other Drugs (CAOD) since 1994 and its Executive Board since 1998, Barry is also chair of the Subcommittee on Drugs: Pharmacology and Toxicology since 1998. He has broadened the participation of the CAOD in national and international collaborations. He chaired an NSC/AAFS/SOFT joint workgroup on per se driving under the influence of drugs (DUID) statutes, chaired the May 2004 "NSC Symposium on Improving Integration of DRE, Investigative and Toxicological Evidence in DUID Prosecutions" in Seattle, chaired the workshop on "Diagnosing Drug Impaired Drivers" at the August 2004 ICADTS International Conference in Glasgow, Scotland and participated in the 2008 NHTSA consultative panel on a strategic plan for impaired driving research and the NHTSA Expert Panel for Developing Protocols for DUID Investigations.

Dr. Logan has received many awards and honors throughout his career. These include the Mid-Career Achievement Award of the International Association of Forensic Toxicologists, the John P. McGovern Foundation Leadership Award for Substance Abuse Prevention and the Rolla N. Harger Award of the AAFS Toxicology Section for Outstanding Contributions to Forensic Toxicology.

MEMBER NEWS

IN MEMORIAM—ALICE LOUISA MARTIN—FEBRUARY 16, 2011

Alice Louisa Martin –
February 16, 2011

Louisa Martin died on February 16, 2011, of complications from ALS (Lou Gehrig's Disease).

Born in Birmingham, Alabama, on March 8, 1946, she grew up in Montgomery, graduating from Robert E. Lee High School in 1964. She studied at Samford University and George Washington University, and re-



ceived her Bachelor's degree from Mobile University. She also did graduate work in chemistry at the University of South Alabama.

For seventeen years Louisa was a valued team member of the Toxicology Section in the

Mobile Regional Laboratory of the Alabama Department of Forensic Sciences, where her contributions were many. In addition, she was

accomplished in Chinese martial arts and served as one of the first judges in national Taijiquan competitions in the United States. She was also active in local musical theatre and sang in her church choir. Later in life Louisa became an avid hiker, especially in the mountains and canyons of the Southwest. She moved to Prescott, Arizona, in 2006, where she hiked the Grand Canyon as a proud member of the Raven Lunatics. She returned to Fairhope, Alabama, after she was diagnosed with ALS in 2007.

Submitted by Matthew Barnhill, Jr.

SOFT YOUNG FORENSIC TOXICOLOGISTS COMMITTEE

Submitted by Teresa Gray, Ph.D., YFT Chair



Teresa Gray, Ph.D.
YFT Chair

The Young Forensic Toxicologists Committee is planning several activities at the 2011 joint SOFT/TIAFT meeting in San Francisco. We invite

all young forensic toxicologists to participate and ask everyone to share this information with their co-workers.

We will hold a competition for the **best poster presentation** by a young forensic toxicologist again this year; we received overwhelming response to last year's inaugural poster competition and we extend our congratulations to the winner, **James Waterson, PhD**. We invite all young forensic toxicologists to submit an

abstract for this year's joint meeting. Once abstracts are reviewed and accepted, interested individuals will have the opportunity to enter their abstract into our poster competition. Eligibility requirements, judging criteria and submission instructions will be posted on the Young Toxicologists page of the SOFT website (www.soft-tox.org). Please note that the judges will consider all aspects of the poster (i.e., the submitted abstract, the poster, and the author's presentation). As a reminder, **abstracts are due by April 15, 2011**.

We will also host a **Young Forensic Toxicologists Day** in collaboration with the TIAFT Young Scientists Committee on Sunday, September 25, 2011. Last year was a lot of fun and some great conversations occurred. We are working to incorporate your suggestions from last

year to make the 2011 meeting a great experience for YFT participants. Please check the Young Forensic Toxicologists page of the SOFT website over the next few months for additional details.

For the first time, the YFT Committee will host the **SOFT Student Enrichment Program (SSEP)**, an educational outreach program targeting students interested in forensic toxicology. The day-long program will be held Monday, September 26, 2011 at the San Francisco Marriott Marquis Hotel. The SSEP will be free of charge, but space is limited. Additional information and an application will be available on the meeting website (www.toxicology2011.org) under "Student Day."

For more information, contact us at softyft@gmail.com.

MEMBER NEWS

GENEROUS ERA/Y SMA CONTRIBUTORS

SOFT's long sponsored mentoring programs, ERA & Y SMA, are funded by generous donations by SOFT members. Both awards encourage students and young scientists to excel in the Forensic Toxicology field.

More information about the Educational Research Award (ERA) and the Young Scientist Meeting Award (Y SMA), (eligibility and application instructions), can be found at the SOFT website (www.soft-tox.org).

Consider "coaching" a talented co-worker or a worthy student to apply for one of these prestigious recognition awards, now worth \$2,000. Thank you 2011 Contributors:

| | | | |
|---------------------|--------------------------|-------------------------|---------------------------|
| Anderson, William | Herndon, Robert | Mathews, Samuel | Saferstein, Richard |
| Appel, Timothy | Hoffman, Donald | Maurer, Hans | Schaffer, Michael |
| Bath, Raymond | Howard, Larry | McGarry, Richard | Sears, Robert |
| Baylor, Michael | Howe, Susan | McGee, Michael | Simon, Robert |
| Botch, Sabra | Hrynkiw, Walter | McManaway, Daniel | Slade, Michael |
| Bush, Donna | Huestis, Marilyn | Mertens-Maxham, Diane | Smith, Michael (Maryland) |
| Chandler, Phyllis | Hughes, John | Merves, Michele | Spiehler, Vina |
| Childs, Paula | Johnson, Robert | Mitchell, John | Spratt, Elizabeth |
| Cone, Edward | Kapur, Bhushan | Montgomery, Madeline | Stout, Peter |
| Costantino, Anthony | Kraner, James | Negrusz, Adam | Sutheimer, Craig |
| Dal Cortivo, Leo | Kupiec, Thomas | Osiewicz, Robert | Tolliver, Samantha |
| Duer, Wayne | Lambing, Matthew | Pinder, Richard | Treacy, Shirley |
| Eastly, Timothy | LeBeau, Marc | Pizzo, Pat | Turk, Robert |
| Farrell, Laurel | Lemos, Nikolas | Posey, Douglas | Valouch, Tara |
| Flanagan, Joyce | Levine, Barry (Maryland) | Preston III, S. Tinsley | Van Berkomp, Lowell |
| Fletterick, Carol | Lewis, Mark | Rana, Sumandeep | Verebey, Karl |
| Fochtman, Frederick | Marker, Elizabeth | Rollins, Douglas | Vondrak, Susan |
| Fuller, Dwain | Martinez, Maria | Ropero-Miller, Jeri | White, Sr., Robert |
| Hepler, Bradford | Mason, Andrew | Saady, Joseph | Winecker, Ruth |
| | | | Zumwalt, Michael |

| IACT MEETING APRIL 18-21 | NIJ SPONSORED COURSES | SOFT EARLY HISTORY SERIES |
|-----------------------------|--------------------------|------------------------------|
|-----------------------------|--------------------------|------------------------------|

The International Association for Chemical Testing will be hosting its annual meeting in St. Louis' Chase Park Plaza Hotel, April 18-21, 2011. In addition to the standard scientific presentation program, IACT has again **partnered with ASCLD-LAB** to offer a laboratory accreditation preparation workshop. The 3 day course is designed to introduce accreditation to those performing breath alcohol instrument calibration activities and how to prepare a laboratory for the accreditation process. Those interested in forensic toxicology board certification will be afforded an opportunity to attend a prep workshop as well as sit for the board certification examination in forensic alcohol toxicology, offered by the Forensic Toxicology Certification Board. Details are available on the IACT website, www.iactonline.org.

NIJ is sponsoring 3 upcoming courses offered by the Midwest Forensic Resource Center in Ames, Iowa:

- **Basic Bio-Metabolism for Toxicologists: Principles of Drug Pharmacokinetics**—
March 8-11, 2011
- **Advanced Bio-Metabolism for Toxicologists: Drug Pharmacokinetics and Dynamics**—
July 26-29, 2011
- **Post-Mortem Analyses in Forensic Toxicology**—October 4-7, 2011

Register on the Midwest Forensic Resource Center Website (<http://www.ameslab.gov/mfrc/training/2011-calendar>).

The MFRC is part of the U.S. Dept. of Energy's Ames Laboratory.

The last issue of ToxTalk, (December 2010) Volume 34-4, included the first of a four part History Series—SOFT in the "seventies".

The last four pages following this issue describe additional historical facts and pictures— from SOFT in the "eighties". The next two decades of SOFT's history will be published in the following June and September issues.

Long time SOFT members should find the names and pictures familiar and nostalgic!



2011 PRELIMINARY CONFERENCE SCHEDULE
SOFT-TIAFT 2011
SEPTEMBER 25-30, 2011

**This schedule is tentative and may change – please visit www.toxicology2011.org for the most up-to-date scheduling information.*

Saturday, 24 September 2011

1400-1800 Registration Desk Open

Sunday, 25 September 2011

0700-1800 Registration Desk Open
 0900-1130 TIAFT Board Meeting
 0900-1300 NSC-CAOD Executive Board
 1000-1200 For. Toxicology Council Meeting
 1130-1230 TIAFT Regional Representatives
 Meeting
 1230-1400 Young SOFT-TIAFT Lunch
 1400-1800 NLCP Inspector/Director Training
 1400-1830 Young SOFT-TIAFT Symposium
 1900 - Young SOFT-TIAFT Happy Hour

Monday, 26 September 2011

0700-0800 Continental Breakfast
 0700-1800 Registration Desk Open
 0800-1700 Student Enrichment Program by
 SOFT-YFTC
 0800-1730 Workshops (0800-1200
 & 1330-1730)
 0900-1200 FTCB Examinations
 0900-1700 Exhibit Hall Staging
 1200-1330 Lunch for Workshop Attendees
 1330-1630 FTCB Board Meeting
 1730-1830 SOFT/AAFS Drugs & Driving
 Committee Meeting
 1900-2200 Tier I Sponsor Receptions

Tuesday, 27 September 2011

0700-0800 Continental Breakfast
 0700-1200 SOFT Board Meeting
 0700-1800 Registration Desk Open
 0800-1200 ABFT Examinations
 0800-1730 Workshops (0800-1200
 & 1330-1730)
 0900-1200 ABFT Accreditation Committee
 Meeting
 0900-1700 Exhibit Hall Staging
 1200-1330 Lunch for Workshop Attendees
 1200-1800 ABFT Board Meeting
 1730-1830 DFSA Committee Meeting
 1800-1900 ABFT Certificate Reception
 1800-1900 Happy Hour in Exhibit Hall
 1800-2100 Sunshine/Rieders Silent Auction
 Open

Tuesday, 27 September 2011 (continued)

1900-2100 Welcoming Reception in Exhibit Hall
 2100-2230 Historical Lecture & Elmer Gordon
 Forum
 2230-0030 Night Owl XII Reception

Wednesday, 28 September 2011

0730-0830 Continental Breakfast
 0730-1530 Registration Desk Open
 0830-0950 Opening Ceremony & Plenary Sessions
 0830-1530 Exhibit Hall Open
 0830-1530 Sunshine/Rieders Silent Auction
 1010-1210 Parallel Scientific Sessions
 1210-1340 Lunch & Poster Session 1 in Exhibit
 Hall
 1340-1440 Parallel Scientific Sessions
 1440-1630 SOFT Business Meeting
 1730-2300 “Escape To Alcatraz”
 & San Francisco Bay Cruise

Thursday, 29 September 2011

0600-0730 SOFT “Karla Moore” Fun Run/Walk
 0730-0830 Continental Breakfast
 0730-0900 AAFS Steering Committee Meeting
 0730-1600 Registration Desk Open
 0830-1235 Parallel Scientific Sessions
 0830-1330 Sunshine/Rieders Silent Auction
 Bidding Ends at 1330
 0830-1500 Exhibit Hall Open
 1100-1200 Exhibitors’ Feedback Session
 1235-1400 Lunch & Poster Session 2 in Exhibit
 Hall
 1400-1530 Parallel Scientific Sessions
 1530-1730 TIAFT Business Meeting
 1830-2400 Uniting Nations Presidential
 Gala Dinner

Friday, 30 September 2011

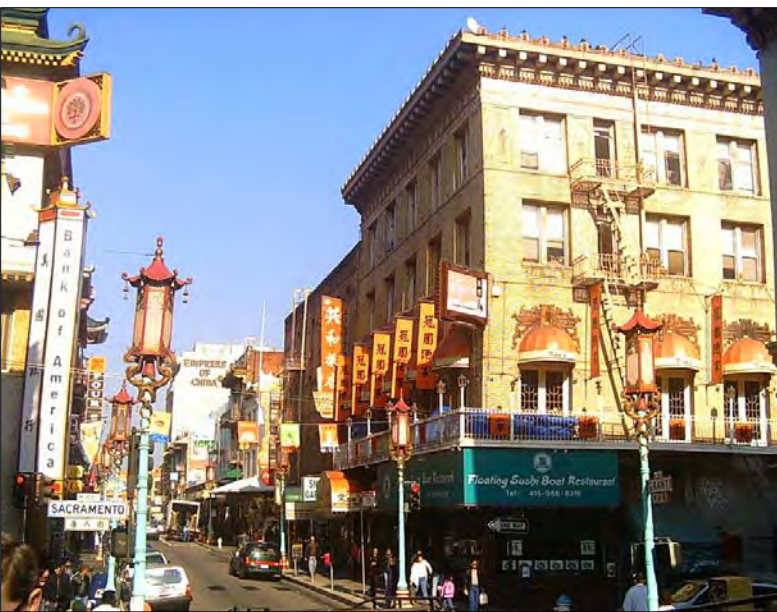
0730-0830 Continental Breakfast
 0830-1235 Parallel Scientific Sessions
 1235-1400 Lunch & Poster Session 3
 1400-1600 Parallel Scientific Sessions
 1630-1800 Award Presentations &
 Closing Ceremony

SOFT-TIAFT 2011

SEPTEMBER 25-30, 2011

*Submitted by Nikolas P. Lemos, PhD & Ann Marie Gordon, MS***ABSTRACT DEADLINE: APRIL 15, 2011****HOTEL RATE CUTOFF DATE: AUGUST 1, 2011****WELCOME**

San Francisco, the unique metropolis by the bay, is getting ready to host the 41st Annual Meeting of the Society of Forensic Toxicologists, which will be jointly offered with the 49th Annual Meeting of The International Association of Forensic Toxicologists. **The conference dates are Sunday, September 25 to Friday, September 30, 2011.** You should expect to have a didactic and rewarding scientific program that will educate and inspire, as well as a rejuvenating social calendar to entertain all. The average daytime temperature this time of the year is 72°F (22°C) but it can drop to a rather low 56°F (13°C) at night. You should expect clear days and little fog as this is one of the best times of year to visit San Francisco!

**REGISTRATION INFORMATION**

Registration for the 2011 Joint SOFT-TIAFT International Conference and Expo on Forensic & Analytical Toxicology will become available in a few weeks and will only be accomplished on-line, by visiting www.toxicology2011.org and selecting the "Registration" tab.

Many types of registrations will be offered to all delegates. The traditional SOFT types of registration will be offered (i.e., meeting only, workshops only, etc.) but this year and at par with typical all-inclusive TIAFT meeting registration style, there will also be a **COMBINED Full Meeting AND Workshop Registration** available to all delegates. More details about each of our registration types can be found online at www.toxicology2011.org under the "Registration" tab. A detailed worksheet can be downloaded from [here](#).

HOST INSTITUTES / LABORATORIES

Ashraf Mozayani, PhD, will be pleased to assist you in identifying a host institute or laboratory in the USA if you so require. Please inquire directly with her (ashraf@toxicology2011.org) about the possibility of arranging such a short educational visit before or after the 2011 Joint SOFT-TIAFT Meeting. It is understood that such assistance is intended to help delegates make the most of their trip to the USA, however, this is not a commitment on the part of the Organizing Committee to provide any further financial or immigration support to the delegate.

INVITATION LETTERS

Upon request, Vina R. Spiehler, PhD, will be pleased to provide you with an official Letter of Invitation if required by your organization, university, institute or immigration authorities. Please contact her directly via email at vina@toxicology2011.org

It is understood that such letter does not constitute a commitment on the part of the Organizing Committee to provide any further support to the delegate requesting this letter.

ABOUT THE CONFERENCE HOTEL

The conference hotel is the San Francisco Marriott Marquis, a downtown San Francisco landmark hotel rising 39 floors high into the city skyline. The famous 'jukebox' hotel is now accepting reservations at the discounted rate of **\$166/night** (single or double occupancy; plus taxes). Triple and quad discounted rates are also available. The discounted conference hotel rate also **includes free complimentary in-room internet access** for the entire duration of the conference. The hotel offers many amenities including an incredible spa, babysitting services, car rental desk, and foreign exchange. If you haven't already reserved your room, please do so quickly as accommodation deals like this one will not last forever! Just south of Market Street, the San Francisco Marriott Marquis Hotel is situated steps away from the city's top attractions, including the historical Cable Cars, world class shopping on Union Square and Westfield's San Francisco Centre featuring Bloomingdale's. Enjoy magnificent views of downtown San Francisco from a number of the 1,499 luxurious guest rooms, including 137 distinct suites. With 117,000 sq. ft. of flexible meeting and banquet space, including 63 meeting rooms, the San Francisco Marriott Marquis Hotel is the premiere destination for both corporate and social events.

The cut-off date for our group rate is August 1, 2011.

Visit www.toxicology2011.org and click on 'Accommodations' to make your reservation at the discounted 2011 SOFT-TIAFT conference rate.

DRIVING / PARKING INFO

If you are driving to the conference venue, you may wish to consider the various parking options at or near the hotel:

- The hotel offers valet parking to all registered guests and day visitors. The current daily rate is \$55.86 and the current hourly rate is \$13.
- Diagonally across from the hotel at the corner of Fourth and Mission Streets, is the Fifth & Mission Garage, the largest parking garage in San Francisco and the **economical alternative** to the hotel valet parking service. The hourly and daily rates at this Parking Garage are \$3.50 and \$32, respectively.

Please note that these prices are only accurate at the time of printing and may change without notice.

AIRPORT / TRANSPORTATION TO HOTEL

If you are flying into the San Francisco Bay Area, please note that the conference hotel does not provide shuttle service to/from airports. It is, however, easy to get to and from the two main international airports serving the San Francisco Bay Area:



- San Francisco International Airport (SFO) located 13 miles from the conference hotel.

Rentals Cars, Airport Shuttles, Subway Service (BART) or Taxis may be used to reach the hotel from this airport. BART is the most convenient and economical way to travel between SFO and the conference hotel. Single, One-Way Ticket from SFO to Powell Street is \$8.10. The hotel is only one block from the nearest BART stop: Powell Street. TAXIS are available to transport you from SFO to the conference hotel. The average cost for a single, one-way trip from SFO to the hotel is \$50 (excluding surcharges and tip).

- Oakland International Airport (OAK) located 19 miles from the conference hotel.

Rentals Cars, Airport Shuttles, Subway Service (BART) or Taxis may be used to reach the hotel from this airport. BART is the most convenient and economical way to travel between OAK and the conference hotel. Single, One-Way Ticket from OAK to Powell Street is \$3.80. The hotel is only one block from the nearest BART stop: Powell Street. TAXIS are available to transport you from OAK to the conference hotel. The average cost for a single, one-way trip from OAK to the hotel is \$60 (excluding surcharges and tip).

Please note that these prices are only accurate at the time of printing and may change without notice.

ABOUT SAN FRANCISCO

San Francisco is often called “Everybody’s Favorite City,” a title earned by its scenic beauty, cultural attractions, diverse communities, and world-class cuisine. Measuring only 49 square miles, this very pedestrian-friendly city is dotted with landmarks like the Golden Gate Bridge, cable cars, Alcatraz and the largest Chinatown in the United States. A stroll of the City’s streets can lead to Union Square, the Italian-flavored North Beach, Fisherman’s Wharf, the Castro, Japantown and the Mission District, with intriguing neighborhoods to explore at every turn.

Views of the Pacific Ocean and San Francisco Bay are sometimes laced with fog, creating a romantic mood in this most European of American cities. The City has a colorful past, growing from a small village to a major city nearly overnight as a result of the 1849 Gold Rush. The writers of the “beat” generation, the hippies of the Summer of Love in the late 1960’s and the large gay/lesbian population have all contributed to making San Francisco the fascinating place it is today.

The City is home to world-class theatre, opera, symphony and ballet companies and often boasts premieres of Broadway-bound plays and culture-changing performing arts. San Francisco is one of America’s greatest dining cities. The diverse cultural influences, proximity of the freshest ingredients and competitive creativity of the chefs result in unforgettable dining experiences throughout the City.

Here are **the top 10 things not to miss in San Francisco**, according to the San Francisco Travel Association:

- Golden Gate Bridge, the most famous bridge in the world, manages to impress even the most experienced travelers with its stunning 1.7-mile span. Approximately 120,000 automobiles drive across it every day. A pedestrian walkway



also allows the crossing on foot, and bikes are allowed on the western side. Golden Gate Bridge is said to be one of the most photographed objects on Earth. Delegates will have the opportunity to see the Golden Gate Bridge and sail under it during Wednesday’s “Escape to Alcatraz and San Francisco Bay Cruise event.

- Cable cars have been transporting people around San Francisco since the late 19th century. The cars run on tracks and are moved by an underground cable on three routes. Their familiar bells can be heard ringing from blocks away. Tickets may be purchased at the cable car turnarounds at the ends of each route. Each one-way ride will provide spectacular views of the city’s celebrated hills as well as exhilarating transportation.
- Alcatraz, the notorious former prison, is located on an island of the same name in the middle of San Francisco Bay. Some of the United States’ most notorious

criminals were incarcerated there. Though several tried, no inmate ever made a successful escape from “The Rock.” The prison was closed in the 1960’s and stories about Alcatraz are legendary. A visit to Alcatraz today is fascinating. Recorded cell-house tours are available, allowing visitors to learn about the prison as they explore the buildings and grounds. We will have the pleasure of visiting ‘The Rock’ on Wednesday evening during our Escape *TO* Alcatraz and San Francisco Bay Cruise!

- Fisherman’s Wharf is also home to Pier 39, a festive waterfront marketplace that is one of the city’s most popular attractions. A community of California sea lions has taken up residence on the floats to the west of the pier and visitors line the nearby railing to watch their antics. From there it’s a short walk to the Wax Museum, Ripley’s Believe It or Not! and the famous crab vendors selling walk-away crab and shrimp cocktails.



- Union Square is the place for serious shoppers. Major department stores and the most exclusive designer boutiques line streets like Post, Sutter, Geary, Grant, Stockton and Powell. The Westfield San Francisco Shopping Centre houses the largest Bloomingdale's outside of New York and the second largest Nordstrom in the U.S.
- North Beach, the city's Italian quarter, isn't a beach at all. It's a neighborhood of romantic European-style sidewalk cafes, restaurants and shops centered near Washington Square along Columbus and Grant avenues. The beautiful Church of Saints Peter and Paul is a beloved landmark. Coit Tower atop Telegraph Hill offers a splendid vantage point for photos of the bridges and the Bay. Inside the tower, floor-to-ceiling murals painted in the 1930s depict scenes of early San Francisco.
- The entrance to Chinatown at Grant Avenue and Bush Street is called the "Dragon's Gate." Inside are 24 blocks of hustle and bustle, most of it taking place along Grant Avenue, the oldest street in San Francisco. This city within a city is best explored on foot; exotic shops, renowned restaurants, food markets, temples and small muse-



ums comprise its boundaries. Visitors can buy ancient potions from herb shops, relax and enjoy a "dim sum" lunch or witness the making of fortune cookies.

- Dining in San Francisco is an attraction in itself. Known as America's best restaurant city, San Francisco chefs excel at combining the freshest

local ingredients, authentic international flavors and a touch of creative genius. Choose your cuisine – Chinese, Japanese, French, Italian, Spanish, Moroccan, Indian, Malaysian, Thai, Mexican, Greek, Russian, German or "fusion," a combination of any or all of these influences.

- Nightlife in San Francisco is a constantly changing scene. The "hottest" clubs currently are in the South of Market and Mission districts, with live and recorded rock and Latin music. Jazz, blues, swing and "oldies" music can be found all over town.
- A visit to San Francisco would not be complete without a cultural experience. The city is home to internationally recognized symphony, opera and ballet companies. Playwrights such as Sam Shepherd and Tom Stoppard introduce their works in San Francisco and avant-garde theatre and dance companies dot the city. The San Francisco Museum of Modern Art, the Asian Art Museum, the de Young Museum, the Palace of the Legion of Honor and other museums and galleries are devoted to the finest of classical and contemporary arts.

2011 SCIENTIFIC PROGRAM

An exciting, educational and diverse scientific program is being planned by our scientific program chair, **Marilyn Huestis**, PhD. Topics are expected to cover many areas of toxicology including postmortem toxicology, human performance toxicology, analytical techniques & methods, interpretative challenges, case reports, driving under the influence of alcohol and/or drugs, clinical toxicology, drug facilitated crimes, and alternative biological specimens.

The Abstract Submission deadline is April 15, 2011.

You can find out how to submit an abstract by reading the 2011 SOFT-TIAFT Call for Papers which can be found online at www.toxicology2011.org under "Scientific Program."

Abstracts will be accepted only in electronic format. Submissions will be peer-reviewed and considered for platform or poster presentations

during the meeting's scientific program sessions. You will be notified of receipt of your abstract within two weeks of submission. If you do not receive notification in this time frame, please contact Nikolas P. Lemos by email (nikolas@toxicology2011.org) to ensure your abstract was received.

Correspondence will normally be with the presenting author only. **Notification of acceptance will be made in writing by July 1, 2011.**

2011 WORKSHOP SELECTIONS

Twelve half day workshops are offered this year. Please note that delegates will be able to either register for individual workshops (a la carte) or register for up to four workshops of their choice if they use the **COMBINED Full Meeting AND Workshop Registration option**.

COMBINED Full Meeting AND Workshop Registrants will get priority choice of Workshops on Monday and Tuesday, however, workshops are subject to capacity limitations.

WORKSHOP PROGRAM

Our workshop program co-chairs, **Laureen Marinetti**, PhD, and **Dimitri Gerostamoulos**, PhD, have organized two days of workshops that cover beginner, intermediate and advanced topics in forensic and analytical toxicology. There were many exceptional submissions which were peer-reviewed by our distinguished International Advisory Board for inclusion in the meeting's workshop program. The following workshops will be offered at the 2011 SOFT-TIAFT meeting:

Monday, September 26, 2011

Morning

- WM1** Analytical Advances in Oral Fluid Drug Testing
Chairs: E Cone and A Verstraete
- WM2** Scientific Writing for Dummies and Smarties Too!
Chairs: M LeBeau and J Roper-Miller
- WM3** ICP-MS for Metals and Elements Testing in Toxicology
Chairs: P Kintz and JP Goulle

Afternoon

- WM4** Applications of Oral Fluid Drug Testing
Chairs: E Cone and A Verstraete
- WM5** New Developments in the Application of Capillary Electrophoresis in Forensic Toxicology
Chairs: F Tagliaro and JC Hudson
- WM6** Publishing in Journals for Forensic Toxicologists
Chairs: MP Juhascik and M Merves

Tuesday, September 27, 2011

Morning

- WT7** High Resolution Accurate Mass Spec (HRAM) in Forensic and Clinical Toxicology
Chairs: B Clarke and K Johnson
- WT8** Solid Phase Extraction Practices and Principles in Forensic Toxicology
Chairs: J Hackett and A Elian
- WT9** Pairing Clinical and Postmortem Toxicology Findings for Interpretative Purposes
Chairs: NP Lemos and T Kearney

Afternoon

- WT10** LC-MS: Tips, Troubleshooting and Techniques
Chairs: J Brower and R Van Orden
- WT11** Forensic Toxicologist Expert Witness Testimony: What to Expect and How to Prepare
Chairs: J Thatcher and M Merves
- WT12** Spice: Detection in Various Biological Matrices
Chairs: C Moore and S Rana

2011 JOINT MEETING OF SOFT & TIAFT

2011 STUDENT PROGRAM

The 2011 Committee plans to develop a day-long student educational outreach program as part of the 2011 SOFT-TIAFT Meeting at the San Francisco Marriott Marquis Hotel.

This program, named the SOFT-TIAFT Student Enrichment Program (ST-SEP), will soon invite students to participate, FREE OF CHARGE (continental breakfast and lunch included), in a one day educational program to learn about the field of forensic toxicology.

The ST-SEP day will be organized and administered by the younger toxicologists committees of SOFT and TIAFT.

The ST-SEP will only be made available to a limited number of students. The purpose of the ST-SEP is to foster education among our future forensic scientists and to give students an educational opportunity they may not otherwise experience.

The deadline for submitting an application is July 31, 2011.

Up-to-the-minute
information may be found

VOLUNTEERS NEEDED

There are many opportunities and a great need for volunteers to assist with the 2011 Joint SOFT-TIAFT Meeting. Those interested should email volunteers@toxicology2011.org to register their interest.

AWARDS / TRAVEL GRANTS

Each year the two organizations recognize various levels of achievement in the field of forensic toxicology by means of awards and grants. If you wish to be considered for any of these awards, you must follow each organization's instructions, use the appropriate application forms and meet the requirements and deadlines.

EXPLORE SAN FRANCISCO

Accompanying Person Registrations (significant others) will be receiving one complimentary "7 day San Francisco Muni & Cable Car City Passport" as part of their registration materials. Additional passports can be purchased for \$69 directly online (www.citypass.com/san-francisco/). The passport includes unlimited transportation on muni and cable cars for seven consecutive days, plus includes free admission to the following city attractions:

- CA Academy of Sciences - includes multiple exhibits of aquarium, rainforest, planetarium, natural history, 3D theatre and living roof.
- Blue & Gold Fleet Bay Cruise Adventure (one hour)
- Aquarium of the Bay
- Museum of Modern Art
- San Francisco Exploratorium
- de Young Museum and Legion of Honor (same day only)

Yankee Clipper Travel Agency will have a table near the Registration area to assist out-of-towners with directions and local information that will help attendees enjoy their San Francisco visit to the fullest.



INT'L ADVISORY BOARD

The many individuals listed below have agreed to serve on the 2011 International Advisory Board. These individuals will be involved with many important meeting decisions for the SOFT-TIAFT 2011 meeting.

- Dan T. Anderson, MS - USA
- Robert A. Anderson, PhD - UK
- Sotiris Athanaselis, PhD - Greece
- Elisabetta Bertol, PhD - Italy
- Jochen Beyer, PhD - Australia
- Federica Bortolotti, MD, PhD - Italy
- Jennifer Button, BS - UK
- Hee-Sun Chung, PhD - Korea
- Marc Deveaux, PhD - France
- Olaf H. Drummer, PhD - Australia
- Simon Elliott, PhD - UK
- Bradford R Hepler, PhD - USA
- David W. Holt, PhD - UK
- Alan Wayne Jones, PhD - Sweden
- Sarah Kerrigan, PhD - USA
- Pascal Kintz, PhD - France
- Thomas Kraemer, PhD - Switzerland
- Robert Kronstrad, PhD - Sweden
- Marc LeBeau, PhD - USA
- Hans H. Mauer, PhD - Germany
- Manfred R. Möller, PhD - Germany
- Christine Moore, PhD - USA
- Ashraf Mozayani, PhD - USA
- Iikka Ojanperä, PhD - Finland
- David Osselton, PhD - UK
- Frank T Peters, PhD - Germany
- Anya Pierce, MBA - Ireland
- Simona Pichini, PhD - Italy
- Nikolaos Raikos, MD - Greece
- Marina Stajic, PhD - USA
- Osamu Suzuki, MD, PhD - Japan
- Franco Tagliaro, MD - Italy
- Helena Teixeira, PhD - Portugal
- Alain G. Verstraete, MD - Belgium
- Robert Wennig, PhD - Luxembourg
- Sarah Wille, PhD—Belgium

Society of Forensic Toxicologists, Inc.

SOFT Administrative Office
One N. Macdonald St., #15
Mesa, AZ 85201

Toll Free Phone: 888-866-7638
Phone / Fax: 480-839-9106
E-mail: office@soft-tox.org

ToxTalk Deadlines for Contributions:

February 1 for March Issue
May 1 for June Issue
August 1 for September Issue
November 1 for December Issue

EXPLORE
SAN FRANCISCO!

SOFT 2011
www.toxicology2011.org

Visit the Website!
www.soft-tox.org

**SOFT 2011 PLANNING
COMMITTEE MEMBERS**

Hosts:

Nikolas Lemos (nikolas@toxicology2011.org)
Ann Marie Gordon
(annmarie@toxicology2011.org)

Treasurer:

Daniel Isenschmid (dan@toxicology2011.org)

Workshops:

Dimitri Gerostamoulos
(dimitri@toxicology2011.org)
Lauren Marinetti
(lauren@toxicology2011.org)

Scientific Program:

Marilyn Huestis (marilyn@toxicology2011.org)

Local Arrangements:

Vina Spiehler (vina@toxicology2011.org)

Exhibitor Coordination:

Peter Stout (peter@toxicology2011.org)
Jeri Roper-Miller (jeri@toxicology2011.org)

JAT Special Editor for 2011:

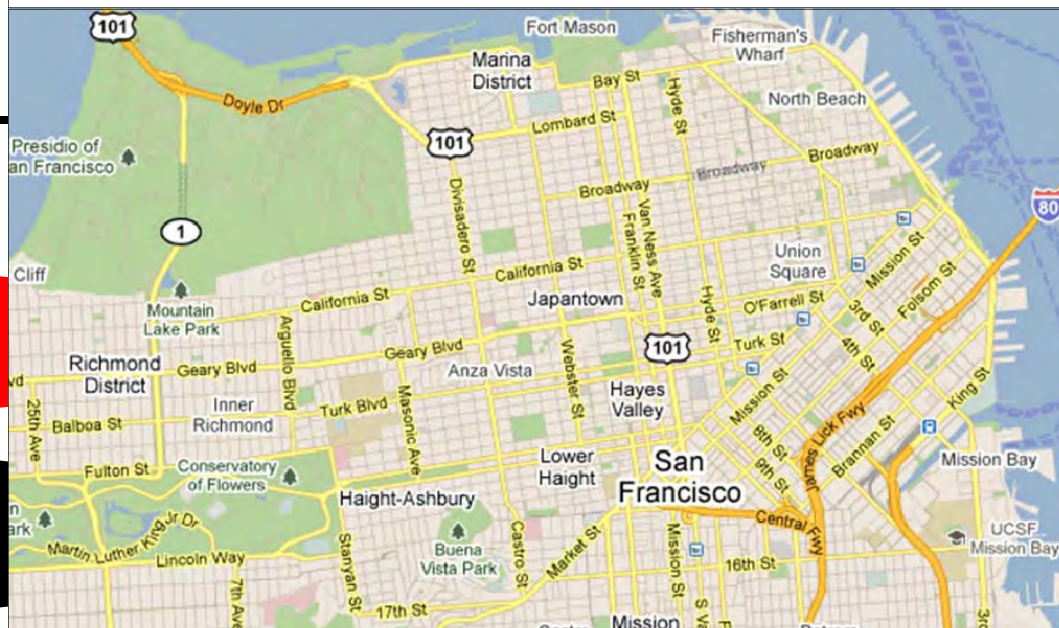
Jarrad Wagner (jarrad@toxicology2011.org)

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Future S.O.F.T. Meeting Destinations:

2011: San Francisco, CA.....Sep. 25-Oct. 1, 2011.....Nikolas Lemos, Ann Marie Gordon
2012: Boston, MA.....June 30-July 6, 2012.....Michael Wagner
2013: Orlando, FL.....Oct. 26-Nov. 3, 2013.....Bruce Goldberger
2014: Grand Rapids, MI.....Oct. 18-25th, 2014.....Ben Kuslikis

SOFT-TIAFT 2011 - SEPTEMBER 25-30, 2011



2011 S.O.F.T. COMMITTEE CHAIRS

Committee

Committee Chair

Advocacy.....Bruce Goldberger, Ph.D., DABFT
ByLaws.....Yale Caplan, Ph.D., DABFT
Budget, Finance, and Audit.....Robert Turk, Ph.D., DABFT
Membership..... Dan Anderson, M.S., FTS-ABFT, DABC
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Publications (JAT Special Issue)Jarrad Wagner, Ph.D.
Awards.....Philip Kemp, Ph.D., DABFT
Meeting Resource.....Marc LeBeau, Ph.D.
Drugs & Driving.....Jennifer Limoges, M.S., DABC
Policy and Procedure.....William Anderson, Ph.D.
SOFT Internet Web-Site.....Bruce Goldberger, Ph.D., DABFT
Matthew Juhascik, Ph.D., DABFT
Continuing Education.....Ann Marie Gordon, M.S.
Young Forensic Toxicologists.....Teresa Gray, Ph.D.
Drug Facilitated Sexual Assault.....Lauren Marinetti, Ph.D., DABFT
Ethics.....Aaron Jacobs, Ph.D.
Nominating.....Bradford Hepler, Ph.D., DABFT
Strategic Planning.....Peter Stout, Ph.D., DABFT
Marc LeBeau, Ph.D., DABFT
CFSO Representative.....Laurel Farrell, B.A.



SOME SOFT HISTORY



1980

- President: Leonard Bednarczyk, PhD, DABFT
- Meeting/Host: Toronto / Canadian Society of Forensic Science
- ERA Winner: John Hebb, University of Maryland (SOFT's first Educational Research Award recipient)

Standing left to right: Arthur McBay, Leonard Bednarczyk, Yale Caplan, Joseph Monforte, and Randall Baselt.

Seated left to right: Everett Solomons, Leo Dal Cortivo, Thomas Rejent, James Valentour, Joseph Balkon, and Jesse Bidanset.



Yale Caplan, Ph.D., DABFT

1981

- President: Yale Caplan, PhD, DABFT
- Meeting/Host: Chicago / Eleanor Berman
- ERA Winner: Christopher Long, St. John's University

- Dr. Caplan has a bachelor's degree in pharmacy (1963) and a PhD in medicinal chemistry (1968) from the University of Maryland. He joined the Maryland OCME in 1969, and served as Chief Toxicologist and Scientific Director of the state's Alcohol Testing Program from 1974 to 1991. From 1977 to 1999, he was the Director of Toxicology and Forensic Toxicology for Quest Diagnostics in Baltimore. Currently, he is the Laboratory Director for the Maryland Division of Parole and Probation, and a consulting forensic toxicologist. In addition to being a former president, vice president, secretary and chair of numerous SOFT committees, Dr. Caplan has been a dedicated editor of Tox Talk (1983-1990, 2007-present). Dr. Caplan has also served as president of ABFT (1988-2008), AAFS, and the Forensic Specialties Accreditation Board. He is the recipient of AAFS's Rolla N. Harger Award and the Distinguished Fellow Award, and the ABFT Board's Distinguished Service Award. Dr. Caplan has taught at his alma mater for over 35 years and directed the School of Medicine's graduate program in forensic toxicology from 1974 to 1992. CONNECTIONS: His former students include five other SOFT presidents: Tony Costantino, Marilyn Huestis, Dan Isenschmid, Amanda Jenkins, and Vickie Watts.

SOME SOFT HISTORY



1982



- President: Joseph Balkon, PhD, DABFT
- Meeting/Host: Rosslyn / Marina Stajic with the Mid-Atlantic Association of Forensic Scientists
- ERA Winner: Barry Levine, Medical College of Virginia
- Dr. Balkon is credited with developing SOFT's original logo, which was based on the concentric wells of the Conway microdiffusion cell. In addition to being a Charter member and president of SOFT, Dr. Balkon served on the ABFT board of directors from 1985 to 1988. CONNECTIONS: Like his mentor and fellow SOFT president Jesse Bidanset, Dr. Balkon taught at St. John's University.

Everett Solomons, Ph.D.,
FFTCB, EABFT

The Original SOFT Logo
from 1982



1983

- President: Everett Solomons, PhD, FFTCB, EABFT
- Meeting/Host: Detroit / Joseph Monforte
- ERA Winner: Paul Hale, St. Louis University School of Medicine
- Dr. Solomons was elected to the SOFT board of directors in 1977 and served as secretary and vice president prior to being elected president in 1982. During his presidency, SOFT was successfully incorporated in Maryland, Tox Talk was transferred to new editors, and teleconferencing was introduced for board meetings. In addition to being a charter member of SOFT, Dr. Solomons is a founder of the Forensic Toxicologist Certification Board, of which he is a past president (1993-1997), and a member of the board of directors and chairman of the examination committee. Dr. Solomons has a bachelor's degree in chemistry from Berry College and completed a PhD in medicinal organic chemistry at the University of Mississippi. He went to work for the Georgia Crime Laboratory (now GBI Div. of Forensic Sciences) in 1970. He became Chief Toxicologist in 1975, a position he held until his retirement in 1998. CONNECTIONS: Dr. Solomons went to high school, undergraduate, and graduate school with SOFT past president Horton McCurdy. They worked down the hall from each other for many years.

SOME SOFT HISTORY

1984

- President: Joseph Monforte, PhD, DABFT
- Meeting/Host: St. Louis / Alphonse Poklis
- ERA Winner: Bruce Goldberger, University of Maryland
- In addition to serving as president, Dr. Monforte was an editor of Tox Talk for nearly 20 years (1988-2006). His wife Pat is also well-known and appreciated within SOFT for her years of administrative support. Dr. Monforte was a protégé of the late Dr. Irving Sunshine. Dr. Monforte’s career path took him to the Wayne County (MI) Medical Examiner’s Office where he was a department manager and Chief Toxicologist. In the private sector, he was a laboratory co-director for Ameritox. Dr. Monforte also served as a member of the ABFT board of directors from 1986 to 2001.



Patricia Monforte and Joseph Monforte, Ph.D., DABFT



1985

- President: Richard Prouty, BS, DABFT
- Meeting: Montreal
- ERA Winner: Daniel Isenschmid, University of Maryland
- Mr. Prouty obtained his initial training in toxicology from Auburn University. Upon graduation, he entered the US Army and served as a toxicologist while stationed in Japan. After leaving active duty, he attended the University of Maryland in Baltimore. He then assumed the position of State Toxicologist and adjunct professor of toxicology and pharmacology at North Dakota State University. He subsequently served as the Chief Toxicologist for the Oklahoma OCME. In addition to being president of SOFT, Mr. Prouty was the first elected president of the Southwestern Association of Toxicologists (SAT), served as section chair at AAFS, and was a member of ABFT’s board of directors. During his career, Mr. Prouty authored several papers, but he is especially remembered for his pioneering work concerning the post-mortem redistribution of drugs. CONNECTIONS: His legacy continues with the many toxicologists he helped train and mentor, including two other SOFT past presidents: Bill Anderson and Tim Rohrig.

Richard Prouty, B.S., DABFT

1986

- President: Rosemary Kincaid, PhD, DABFT
- Meeting/Host: Reno / Norman Wade with the California Association of Toxicologists (CAT)
- ERA Winners: Donna Bush, Anthony Costantino, Bruce Goldberger & Daniel Isenschmid, University of Maryland; Peggy Kelly, University of California School of Health; Teri Stockham, Medical College of Virginia



Rosemary Kincaid, Ph.D., DABFT

SOME SOFT HISTORY

1987

- President: Horton McCurdy, PhD, DABFT
- Meeting/Host: Key Biscayne / Len Bednarczyk
- ERA Winners: Tareyl Barton, Mercer University Southern
Joseph Boni & Robert Fitzgerald, Medical College of Virginia
- A member since 1975, Dr. McCurdy has served on the SOFT board of directors and as the chairman of the membership, national surveys, nominating, meeting advisory, forensic toxicology guidelines, and organizing committees. He is also a Fellow of AAFS, serving as both secretary and chairman of the Toxicology Section. Dr. McCurdy received the Section's Rolla N. Harger Award in 2003 for his outstanding contributions to forensic toxicology. He is a diplomate of both FTCB and ABFT, and has been a member of ABFT's board since 2003. Dr. McCurdy was a sworn special agent of the Georgia Bureau of Investigation for 30 years. He ultimately became Technical Director of the toxicology section within the GBI's Division of Forensic Sciences. Dr. McCurdy has also been the president and CEO of Toxicology Consultants, Inc. since 1982, and provided expert testimony in more than 500 court cases. He is currently the Clinical Laboratory Director for eLabs Consulting Services in Atlanta. Like his friend and former colleague at the GBI Everett Solomons, Dr. McCurdy has a bachelor's degree in chemistry from Berry College and a PhD in medicinal chemistry from the University of Mississippi.



Horton McCurdy,
Ph.D., DABFT



Nicholas Hodnett, Ph.D., DABFT (left) and
Michael McGee, B.S., DABFT

1988

- President: Michael McGee, BS, DABFT
- Meeting/Host: Philadelphia / Jane Speaker
- ERA Winners: Vickie Watts, Anthony Costantino & Daniel Isenschmid, University of Maryland
- Mr. McGee served as SOFT's treasurer from 1980 to 1986, and as vice president in 1987. He is a Fellow of the AAFS Toxicology Section and received the Section's Ray Abernethy Award. With a bachelor's degree in chemistry from Wheeling College, Mr. McGee began his forensic toxicology career in 1971 at the Cuyahoga County Coroner's Office working under Dr. Irving Sunshine. In 1974, he moved to the Virginia Bureau of Forensic Science, and in 1981, became the Associate Director of the Galveston County (TX) Forensic Lab. He held a dual appointment as a senior research associate at the UT-Galveston Medical Branch's Department of Pharmacology & Toxicology. In 1984, Mr. McGee joined the staff of the American Institute for Drug Detection in Chicago as Laboratory Supervisor. Finally, in 1986, he settled in New York City where he is currently the Assistant Director of the OCME toxicology lab. He is an instructor in the Department of Forensic Medicine at the NYU Medical School as well.

1989

- President: Nicholas Hodnett, PhD, DABFT
- Meeting/Host: Chicago / Michael Schaffer
- Before being elected president of SOFT, Dr. Hodnett served on the board of directors, as secretary, and as vice president. He has also chaired multiple committees, including educational funding, membership, nominations, and liability & insurance. Dr. Hodnett is a Fellow and former chairman of the AAFS Toxicology Section, and received the Section's Gettler Award in 2002. He was on the ABFT board of directors from 1992 to 2001. Dr. Hodnett earned a bachelor's degree in chemistry from Baldwin-Wallace College, his masters's in clinical chemistry from Cleveland State University, and a PhD in pharmacology from the University of Vermont. He started his career as an assistant chemist at the Cuyahoga Coroner's Office in 1964 and went on to serve as a toxicologist for the Vermont OCME and the Milwaukee County ME's office. In 1978, he joined the Westchester County (NY) Department of Laboratories and Research, retiring as the Director of Toxicology & Forensic Sciences in 2005. Dr. Hodnett has also taught at the University of New Haven, SUNY at Purchase, Long Island University, the New York Medical College, and the Medical College of Wisconsin. CONNECTIONS: Dr. Hodnett is one of five SOFT presidents who are "Sunshine Boys." The others are Joe Monforte, Mike McGee, Bob Bost, and Brad Hepler.

