



TOXTALK™

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SOFT 2012 BOSTON MEETING WRAP-UP

*Submitted by Michael Wagner, Ph.D.,
Meeting Host*



It's hard to believe that the Boston 2012 conference has come and gone. As the summer of 2012 comes to a close, we have a chance to reflect on how successful this summer has been. The 2012 Committee thanks everyone who attended this conference and helped to make it a truly unique and successful experience for all. The mid-summer scheduled conference was the first ever held in July (let alone over the July 4th holiday!) as well as being hosted in the historic city of Boston. 923 registrants participated in this year's conference with 203 representing the exhibitors, 26 students, 35 workshops only, 349 members, 181 non-members and 17 daily registrations.

The week began with an excellent selection of workshops attended by 975 registrants and organized by Workshop Chair Jennifer Limoges. Jenn, your attention to detail and forethought helped guide the conference in many areas beyond the workshop presentations. We are grateful to have had you on our committee.

As usual our gratitude goes out to Bonnie, the SO-SOFT ladies and all the other volunteers (Denise Teem, Bridget Verdino, as well as Vickie Maloney - 2013's Orlando crew hosted by Bruce Goldberger) who helped with registration. Your dedication every year is appreciated more than anyone can say. Special thanks to all who helped prepare the bags and other registration materials, especially the New Hampshire crew whose energy and enthusiasm spearheaded the bag preparations finishing the task on Friday night! Saturday morning's coffee tasted that much sweeter. Volunteers

organized by Colleen Scarneo (Co-host) and assisted by Debbie Denson were ever present throughout the week's activities and events. Rounding out other volunteer activities were the Sunshine/Rieders Silent Auction, supervised by Sean Kocur overseeing the bidding and distribution of 102 items, and the Karla Moore 5K Fun Walk/Run that was organized by Robyn Sweeney-Blaise. Winners were: first female runner Jeanne Treaster, first male James Byrd and an unregistered partner were recognized later; however, the male runner first-prizewinner was assigned to Douglas Hensel. The first place walker(s) were undetermined due to the en masse photo finish. Frankly, everyone who got up at 6:00am after the July 4th celebration was a winner in my book.

The July 4th scientific session began with opening remarks from SOFT President Marc LeBeau followed by keynote speaker Dr. Barbarajeane Mag-

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BOSTON MEETING (CONTINUED)

nani PhD MD, (Chair and Pathologist-in-Chief, Department of Pathology and Laboratory Medicine). Her lecture was just the right combination of informative pathology, toxicology, autobiographical literary imagination and humor. A strong scientific session continued that day with two ERA award presentations and one YSMA award (Caroline Betit, Trista Wright and Dani Mata respectively) and finished with a SWGTOX update from committee chair Rob Middleberg. A total of 46 scientific platform presentations and 84 poster presentations were accepted. The program was extended to Friday afternoon to allow for the final candidates of the inaugural Leo DalCortivo award to present their science. Claire Kaspar, Brian Waters, and David Schwoppe were this year's winners. Look for a formal discussion by Phil Kemp elsewhere in this news letter. Thanks to co-chairs Loralie Langman and Albert Elian for your hard work and dedication in organizing this scientific session.

The week would not have been complete without enjoying the sites, sounds and culinary tastes of Boston with our closest of friends and colleagues. The Host Committee made special efforts to provide attendees with a menu that highlighted the best tastes of New England. Top Tier events hosted by Agilent Technologies, Cerilliant, Radox Toxicology, Roche, OraSure Technologies and Thermo Scientific were highlights earlier in the week. We remember with gratitude their support as well as our endless thanks to our other sponsorships: Tier Two sponsors AB Sciex, Axiom Diagnostics Inc., Campbell Science, Immunalysis, and Waters; Tier Three sponsors ApolloLims, Biophor Diagnostics Inc., Neogen Corporation and Shimadzu; Tier Four sponsors LinZhi International Inc, Lipomed Inc, Biotage, and Venture Labs; our Tier Five sponsors Shamrock Glass, NMS Labs, Biochemical Diagnostics, SPEware Corporation, Branan Medical Corporation, and University of Florida/Apollidon Learning. Thanks to Peter Stout for his continued guidance and expertise as our vendor liaison. We'll miss your insightful recommendations but know that Jarrad

Wagner will work hard to support this very important role as the new vendor liaison.

A major goal of this meeting was to share scientific knowledge and advancements with our colleagues, but also to make this meeting accessible to family members and significant others. The Host Committee organized the meeting in a manner that allowed attendees to enjoy Boston's offerings at their pace (with family and/or attending guests). The signature event held on the 4th of July was celebrated together at the Museum of Science (MOS). A record registration of 87 attending people (54 adults and 33 individuals under the age of 16) joined their family, friends and colleagues to watch Boston at its best. Celebrating the nation's birthday with fireworks, music from the Pop's orchestra and supplemented with DJ music/dancing, the excellent food service provided by Wolfgang Puck and the professional guidance from the staff of the MOS and NXTevent made the night a spectacular experience. The President's Banquet was an excellent finish to a fantastic week. The New England Style Clambake was served to perfection and the music and energy provided by Boston's premier band BeanTown kept the floor full of enthusiastic dancing. It's probably the first time that the band was as impressed with the audience's energy as the conference attendees were with the band's ability to play of all the crowd's favorite songs.

With the lowering of this year's banner a few final words of gratitude need to be expressed. First and foremost is the Host Committee's appreciation for the support that the SOFT Board (past and present) gave to this conference and its unique opportunity, especially this year's president Marc LeBeau. Many thanks go out to Brad Hepler (past president and this year's treasurer) for your financial guidance and mentoring. Thanks to Jared Cooper for your expert skills in managing the 2012 website and the many surveys sent. Thanks to Matt Juhascik for keeping the membership at large informed of the many announcements and for your helpful design suggestions with this year's meet-

ing logo. One of the most memorable meeting logos ever, we salute you. The SOFT organization cannot put into words our thanks to Tinsley Preston of Preston Publications for the many years of support as friend, colleague and publisher of JAT, and we hope to see you at future meetings and continue to enjoy your wonderful photographs. We look forward to a long and productive relationship with Oxford University Press as JAT's new publishing company. Thanks to Dimitri Gerostomoulos for overseeing the production and review of the SOFT Special Edition. The shorter timeline required a more vigilant eye to detail and quality review, a task you handled masterfully. Thank you to Frank Wallace and the Mass AV audio visual crew for your expertise in the art of audio/visual execution. Your ability to be in more than one place at the same time seems to defy the laws of physics.

Final thanks go to three important people. First, many thanks go out to my co-chair Colleen Scarneo. She worked tirelessly on many levels to bring the Boston experience to all the attendees, in addition to working daily with the hotel (and Brad) to ensure the budget stayed within limits. Second, I have to thank Bonnie for her unfaltering effort that begins at the end of the previous meeting, includes many long hours logged in during the conference week and carries straight through to the end (actually several weeks past) of the current year's meeting. We are all eternally grateful. Third, I have to thank my wife for her patience and understanding.

We close this meeting by remembering that success is never achieved alone and hardships can be eased by the comfort of family, friends and colleagues. We look forward to seeing you all in Orlando for the 2013 conference.

Photographs from the 2012 SOFT



Meeting in Boston
can be found in
Appendix 1.



PRESIDENT'S MESSAGE

Submitted by *Marc LeBeau, Ph.D., DABFT*

"If you build it they will come" – Field of Dreams

About five years ago, the SOFT Board of Directors was presented with the idea of holding the 2012 annual meeting in Boston over the week of July 4th. It was an exciting idea to visit such a fabulous, historical city at such a meaningful time of the year. But the Board also recognized the risk of the meeting occurring so early in the year. That being said, there is a saying that is very fitting for SOFT Annual Meetings – "if you build it, they will come."

Mike Wagner, Colleen Scarneo, Jennifer Limoges, Loralie Langman, Albert Elian, Brad Hepler, and the entire 2012 organizing team certainly built it. And over 900 people came to Boston and made it another very successful meeting. My thanks go to all the volunteers that were involved in organizing the meeting, as well as the

speakers, poster presenters, moderators, and participants that made for a rewarding week. As long as we continue to have meetings of the caliber and affordability of our Boston experience, we will maintain SOFT's goal of providing great workshops, scientific exchange, and networking opportunities to its members.

During the Annual Business Meeting, I announced some very exciting news that will soon impact all SOFT members. SOFT has entered into an agreement with Oxford University Press to make the *Journal of Analytical Toxicology* the official journal of the society. Further, beginning in 2013, a free subscription to the print copy of JAT, as well as access to the online version of the journal, will be provided to all SOFT members. The agreement with Oxford University Press also ensures

that the organization has a strong voice in the content published in the journal by allowing the SOFT President to appoint five members to the Editorial Board each year. I want to thank Oxford University Press for helping us provide this wonderful opportunity and I hope you find it yet one more advantage of being a SOFT member. The SOFT Board of Directors knows that there are a number of professional organizations that you can belong to and many of you must choose which will be the most advantageous to you both professionally and personally. Joining SOFT shows your faith in the organization's ability to meet your goals, so thank you for allowing SOFT to be a part of your future growth.

Marc LeBeau, Ph.D., DABFT
President

SOFT 2013 Orlando, FL -October 28th-November 1, 2013

Planning for SOFT 2013 is underway – so hold the following dates – October 28 to November 1, 2013. The meeting will be held at the Buena Vista Palace Hotel & Spa in the Walt Disney World Resort in Orlando, Florida. The resort is twenty minutes from the Orlando International Airport and directly across the street from Downtown Disney.

Many special events have been planned including the traditional President's Reception followed by a memorable evening at Cirque du Soleil® La Nouba™. In addition, attendees will have access to seven of the world's top theme parks including Disney's Magic Kingdom Park and Epcot, Universal's Islands of Adventure, and SeaWorld Orlando, not to mention nearly 100 other attractions. Across the street at Downtown Disney, attendees can enjoy unlimited nighttime entertainment opportunities.

Details regarding registration for the

meeting, as well as a link to make your hotel reservation at the Buena Vista Palace Hotel & Spa, will be posted on the SOFT website in October. In addition, workshop proposal forms will be available on the website shortly. Abstract submissions will be accepted early next year.

The SOFT 2013 meeting committee consists of the following persons:

Meeting Host

Bruce Goldberger

Meeting Host Committee

Chris Chronister

Scientific Program

Michele Merves
Matt Juhascik

Workshop Coordinator

Chris Chronister
Jeri Roper-Miller

Treasurer

Laurel Farrell

Exhibitor Liaison

Jarrad Wagner

SSEP / YFT

Jayne Thatcher

Registration

Bonnie Fulmer

Audiovisual

Frank Wallace

Website Coordinator

Matt Juhascik

Volunteer Coordinator

Theresa Hippolyte
Liz Zaney

Sunshine / Reiders Silent Auction

Tate Yeatman

Please join us in Orlando for an unforgettable meeting and entertainment event.





Society of Forensic Toxicologists, Inc.

Business Meeting Minutes

Boston, Massachusetts (Marriott Copley)

Thursday, July 5, 2012, 4:00 pm – 5:30 pm

Call to order - The 42nd SOFT Annual Business meeting was called to order at 1605 hours by President Marc LeBeau and Secretary Ruth Winecker verified a quorum was present by counting the signatures of voting members on the sign-in sheets to ensure 100 members were present. The business meeting sign-in sheets reflected that 128 out of 152 meeting attendees were Full members with voting privilege.

Approval of Agenda - President LeBeau proposed approval of the agenda; motion to approve, no objections were made and the agenda was approved.

Approval of Annual Business Meeting Minutes (San Francisco, CA) - President LeBeau stated that the September 2011 Annual Business Meeting Minutes were published in the March edition of TOXTALK™ and asked for any corrections. With no corrections suggested, the minutes were approved as published.

President's Report - Marc LeBeau acknowledged the meeting host, the many volunteers, and Bonnie Fulmer, SOFT's Administrative Assistant, for the wonderful Boston meeting. Because time was of a concern, LeBeau indicated that all will be formally recognized at the President's reception. In LeBeau's presidential speech, he outlined the progress that the BOD had made on the three projects that he had indicated would be undertaken during his tenure as President. The first was to continue work on committee handbooks to make sure that the various committees operate according to the SOFT Bylaws and Policies and Procedures. President LeBeau further stated that the handbooks are also meant to help SOFT recognize and define areas of responsibility and review procedures that we think are clear, but actually need more definition. President LeBeau reported that there are currently two more hand-

books that are in their final draft. These are the IT (Website) Committee handbook and Awards Committee handbook. These add to the already established Membership Committee, Ethics Committee and TOXTALK™ Committee handbooks. The second goal was to ensure that SOFT members are aware of the activities of the Scientific Working Group for Forensic Toxicology (SWGTOX) and have the opportunity to participate in the activities of SWGTOX. President LeBeau reported on the various activities of the SWGTOX in particular referencing Rob Middleberg's report on SWGTOX from the previous day's scientific session. Further, President LeBeau stated that the members of SWGTOX are aware that the consensus standards for the field of forensic toxicology being developed by the SWGTOX will affect most, if not all, SOFT members. Therefore, bylaws were developed for SWGTOX to ensure that all interested individuals have a voice in developing these standards whether they are a current SWGTOX member or not. Part of the process to move a standard from a draft standard to an approved standard is to send that draft document out to the members of SOFT and other related organizations for a 60-day public comment period and this provides an opportunity for SOFT

members to make their thoughts on these draft documents known. President LeBeau emphasized the importance of SOFT member participation in this important work and encouraged all to read and comment on the method development and validation document currently out for public comment before the mid-August deadline. The third area the BOD has focused on this year is to encourage volunteerism in the SOFT organization. President LeBeau referenced his TOXTALK™ and Website articles from earlier this year about the importance of volunteers to SOFT. Further, President LeBeau reported that SOFT members have raised their hands and volunteered in record numbers this past year, but reiterated that SOFT cannot stand in place and encouraged all SOFT members to volunteer and give back to the organization that provides so much to its members. President LeBeau went on to report the very exciting news that SOFT has entered into an agreement with Oxford University Press (OUP). The Journal of Analytical Toxicology (JAT) will be the official journal of the society and beginning in January 2013 all SOFT members will receive a printed copy of JAT, as well as on-line access to the journal as part of their SOFT membership. Further, President Le-



SOFT Business Meeting Minutes *(Continued)*

Beau stated that the agreement ensures that SOFT has a strong voice in the content of the journal by allowing SOFT to appoint five members to the editorial board each year. President LeBeau thanked OUP for helping SOFT provide this wonderful benefit to our members. Next, President LeBeau talked about the death this past year of one of SOFT's founding members and second president of SOFT, Leo Dal Cortivo and reported that his widow Patty, knowing how important SOFT was to her husband, made a generous donation to SOFT in Leo's memory. Her wish was for SOFT to use the donation to help young toxicologists. President LeBeau informed the members that the BOD felt it was best to use the donation to fund two awards for the Young Forensic Toxicologists Committee (YFT). The committee will announce the first winners of the Leo Dal Cortivo awards at the closing ceremonies on Friday. One award will be for the best poster and one for the best oral presentation by a young toxicologist. The awards carry with them a one thousand dollar cash stipend as well as a future annual meeting registration. In conclusion, President LeBeau thanked the Board and committees for all of their hard work and thanked the membership for allowing him to serve as the President of SOFT, which he will continue to do until the end of 2012. Lastly, he thanked the members for choosing SOFT as an organization that would help them meet their professional goals.

Secretary's Report - Ruth Winecker first thanked the members of the committee, Patrick Harding, Diane Boland, and Robert Johnson for their attentive and thorough dedication in assessing the membership applications. Additionally, she mentioned Bonnie Fulmer's work on preparing the membership application packages and stated that Ms. Fulmer's preparation work greatly improves the efficiency of the committee and the committee is grateful for her help and insight. She reported that since January 1, 2012 the committee has reviewed 58 applications in various categories including: 20 for full membership; 16 for associate; 3 for reinstatement; 4 for student; 2 for retire-

ment; 13 for promotion either from student to associate or associate to full. Further, she informed the attendees that 13 members were dropped from the membership roles either via notification to the SOFT office of withdrawal of membership or by non-payment of dues after multiple attempts to contact the member bringing the membership tally to 1074 as of 6/15/12. Secretary Winecker finished her report by presenting a remembrance of the two members that SOFT lost this past year, Leo Dal Cortivo and Jason Sklerov, which was followed by a moment of silence.

Treasurer's Report - Peter Stout began by asking attendees to keep in mind that the numbers as presented represents only six months of 2012 and it is difficult to predict all of 2012 expenses this early in the budget cycle. Treasurer Stout's PowerPoint presentation showed there was a total of \$1,317,775 in assets and there was a budgeted operating loss for \$30,000 with a BOD approved zero expected revenue from the Boston meeting. Stout pointed out the 2011 annual meeting profit of ~\$290,000 and further stated that the 2012 annual budget included line items for a \$50,000 donation to the TIAFT Developing Countries Fund, line items for continuing education without reimbursement, and a budgeted operating loss for SOFT 2012. He explained that the 2012 Annual Meeting income was budgeted for zero to help offset the profit from the 2011 Annual Meeting. Stout reported on new treasurer activities including the establishment of the new Leo Dal Cortivo Young Forensic Scientists Award fund and the paying of quarterly taxes.

Vice President's (Committee) Reports - Dan Anderson called for committee reports as follows:

Bylaws (Yale Caplan) - Caplan reported no activity.

Budget, Finance, and Audit (Rod McCutcheon) - McCutcheon reported the committee was comprised of Mahmoud ElSohly, Robert Turk, George Jackson, Joseph Saady, and Bill Johnson. McCutcheon stated the 2011 budget and finance reports were reviewed as well as the CPA report and

everything was in order. In the future the committee plans to develop a committee handbook that will contain policies and procedures for evaluation of SOFT financial records.

Membership (Ruth Winecker) - Winecker stated this report was provided earlier in the Secretary's report.

TOXTALK™ (Yale Caplan) - Caplan thanked Laura Liddicoat, Bob Zettl, Dwain Fuller, Dan Anderson, Matt Barnhill, Barry Levine and Nicole McCleary for their work on TOXTALK™. He expressed the hope that the membership was enjoying the new format and increased content of the newsletter. Caplan called for submissions on news from other organizations, fields of expertise and expanded technical content. He concluded by encouraging the membership to continue to submit subject material including case notes to maintain the quality of the publication.

Publication-JAT (Dimitri Gerostamoulos) - Gerostamoulos thanked SOFT for the opportunity to serve as the special issue editor. He further stated that the issue was comprised of 14 articles and he thanked all of the reviewers and authors for completing everything in a timely manner. The EDIT award committee, comprised of Sherri Kacinko, Michael Smith, and Hans Maurer, selected a single article for the award and the announcement will be made at the end of the business meeting. JAT Editor-in-Chief, Bruce Goldberger presented Gerostamoulos with a plaque and thanked him for his work on the issue.

Education Research Award (Phil Kemp) - Kemp reported that there were two ERA applications and one YSMA application and all were reviewed and approved by the committee. Kemp thanked the members of the committee for their quick turnaround time on their reviews. Further he reported that the committee had developed a handbook and that a draft had been submitted to the Board. Kemp announced that the application process is to be changed so that all aspects of the process will be electronic in the future. He completed his report by calling out the

SOFT Business Meeting Minutes (Continued)

names of the recipients and the titles of their winning projects and asked them to come forward to receive their awards.

Meeting Resource Committee (Dan Anderson)

2012 – Boston (Michael Wagner) - Wagner thanked the BOD and attendees for accommodating the meeting being held over the July 4th holiday. Wagner acknowledged the many individuals who volunteered in various capacities to make the meeting a success and asked them to all come forward to be recognized. Jennifer Limoges recounted the workshops that were held on Monday and Tuesday, announced the chairs of the workshops, thanked them for their efforts and asked them to come forward to be acknowledged.

2013 – Orlando (Bruce Goldberger) - Goldberger stated the annual meeting in Orlando will be held October 28 -November 1, 2013 at the Buena Vista Hotel and Spa, a large resort convenient to downtown Disney. Goldberger recognized the committee members and their duties and informed the attendees that the meeting website will be hosted by the SOFT website rather than an independent site. Goldberger showed three videos; one each of the Orlando meeting hotel, the Walt Disney World Resort and Cirque du Soleil which will be the Wednesday evening special venue. He completed his report by inviting everyone to come to Orlando for next year's meeting.

2014 – Grand Rapids, MI (Benjamin Kuslikis/Michael Smith) - Kuslikis and Smith reported the 2014 annual meeting will be held at the Amway Grand Convention Center, October 18 -26, 2014 in downtown Grand Rapids.

2015 – Atlanta, GA (Robert Sears) - Sears reported that the meeting will be at the Hyatt on Peachtree in downtown Atlanta and the meeting dates are October 17-25, 2015. Sears concluded his report by informing the attendees that the Georgia Bureau of Investigation (GBI) had agreed to serve as local hosts and that committee members are currently being selected.

2016 – Dallas, TX (Chris Heartsill and Erin Spargo) - Spargo reported they are in the very early stages of planning for the meeting but that dates of the



meeting would be October 15 -23, 2016 in the downtown Arts District of Dallas.

2017- Anderson explained the approach the Board of Directors has used the last couple of years in the selection of future meeting sites. Working with Helms-Briscoe, the concept was to select a region, identify a possible city and request competitive bids from hotels. Anderson reported that the 2017 has been narrowed down to San Diego, CA and Boca Raton, FL.

Drugs and Driving (Jennifer Limoges) - Limoges reported it was a great Drugs and Driving special session earlier that morning coordinated by Amy Miles. The committee also sponsored the



Oral Fluid/DUID workshop held earlier in the week. Loralie Langman will be coordinating the Special Session at AAFS in February 2013. Lastly, the committee is working on updating the SOFT website as a membership resource. Limoges concluded her report by mentioning that the drugs and driving committee always meets on Monday evenings at SOFT and that all interested parties are welcome to attend.

Policy and Procedures (Ruth Winecker) - Winecker listed the members of her committee (Dan Anderson, Jennifer Limoges and William Anderson) and stated the mission of the committee. She reported the Policy and Procedures manual is in the process of being revamped with a standardized numbering system, a table of contents and organizational charts.

IT (Website) (Bruce Goldberger/ Matthew Juhascik) - Juhascik reported the website will receive a facelift in the near future. He further stated that the committee has been sending out bulk emails on a regular basis and asked the membership to check their spam filter if they haven't been getting these.

Continuing Education (Ann Marie Gordon) - Gordon reported the ConEd committee added a new member and welcomed Aubra Brown, Maricopa County Medical Examiner, AZ to the committee. She reported that the committee had been very active this year with hosting the Opioids workshop at this meeting and one regional workshop in conjunction with the DFSA committee in Oklahoma in April. In the previous year, the Board of Directors requested the responsibilities of continuing education credits be transitioned from Don Fredericks to this committee and she encouraged all meeting attendees to visit the Accent website and fill out the evaluations so that the committee could have meaningful data with which to evaluate the workshops and meeting presentations. Gordon finished her report by listing the CE workshops that the committee has available and encouraged SOFT members to consider hosting one of these

SOFT Business Meeting Minutes (Continued)



regional ConEd workshops.

Young Forensic Toxicologists (YFT)

(Jayne Thatcher) - Thatcher listed the members, Erin Karschner, Tim Grambow, Michele Merves, David Schwope, Sarah Urfer, Amy Cadwallader, and Matthew Juhascik. The group hosted the 3rd annual symposium beginning with a social hour followed by an open forum. There were 70 attendees at the symposium. Further, she reported that the groups hosted the SEP on Monday with 17 enthusiastic and knowledgeable students. She concluded her report by detailing the committee's activities in judging the Leo Dal Cortivo Award Competition and the plans to announce the winners at the closing ceremonies of the annual meeting.

Drug-Facilitated Sexual Assault

(Laureen Marinetti) - Marinetti reported the committee was updating most of the DFSA documents and added a couple of new drugs to their list of common DFSA drugs. These documents can be found on the SOFT website. She announced plans to offer the DFSA workshop mentioned in the ConEd report again in the near future and asked that those interested in hosting the workshop contact her directly. Marinetti concluded her report with the news that the committee will be hosting a survey sample to test drug cutoffs for willing laboratories.

Ethics (Robert Osiewicz) - Osiewicz reported there was a complaint referred to the committee and the committee reviewed same and found it to be without merit. Osiewicz re-

ported that due to the recently published SWGTOX standard on ethical conduct, a PowerPoint presentation was developed on SOFT's code of conduct. Osiewicz concluded his report with a reminder that the dues form includes an ethics statement, and by signing the form, you understand SOFT's code of conduct and agree to abide by the code.

Nominating (Sarah Kerrigan) - Graham Jones read the committee report. He stated the purpose of the committee, named the other committee members (Sarah Kerrigan, and Christine Moore), and announced the 2013 slate of candidates.

President: Dan Anderson

Vice President: Peter Stout

Treasurer: Jennifer Limoges

Board of Directors: William Anderson (1 year appointment) and Madeline Montgomery (3 year appointment)

Strategic Planning Committee (Peter Stout) - Stout stated the purpose of the committee and reported there has been no recent activity but the committee had intentions to meet later this year.

Vendor Liaison Committee (Peter Stout) - Stout reported the transition of Vendor Liaison duties from himself to Jarrad Wagner was taking place at this meeting. He thanked Wagner for taking over this very important task.

CSFO (Laurel Farrell) - Farrell reported that CSFO stands for the Consortium of Forensic Science Organizations and is comprised of AAFS, NAME, ASCLD, ASCLD/LAB, IAI, and that SOFT shares a membership with ABFT. She stated the dues membership organizations pay to the CSFO are used to fund the activities of a legislative liaison to keep apprised of the congress' legislative activities and keep the needs and concerns of forensic science organizations up front and personal in the minds of our congressional representatives. She further stated that Senator Leahy's bill was moving forward and that he had called for a hearing on the bill to happen on July 14th and hopefully will move the bill to the mark-up phase. She also believed that Leahy's staff

would release the latest revision of the bill within the next two weeks and copies would be available for comment that could then be passed onto our lobbyists/advocates.

Advocacy Committee (Bruce Goldberger) - Goldberger stated there was no activity this year.

SWGTOX Update (Bruce Goldberger) - Goldberger asked all members to get involved by visiting the SWGTOX website and reviewing the documents out for public comment.

EDIT Award (Dimitri Gerostamoulos) - Gerostamoulos announced the EDIT award this year would be awarded to David Schwope for his article entitled "*Psychomotor Performance, Subjective and Physiological Effects and Whole Blood D9 - Tetrahydrocannabinol Concentrations in Heavy, Chronic Cannabis Smokers Following Acute Smoked Cannabis*". The co-authors were Wendy Bosker, Johannes Ramaekers, David Gorelick and Marilyn Huestis. The award was accepted for David by Marilyn Huestis.

Announcements/Liaison Reports

ABFT - Bruce Goldberger reported there were 12 new certificants, 4 Specialists and 8 Diplomates. He announced their names and asked them to stand to be recognized and congratulated.

CAT - John Hughes thanked SOFT for their help with CAT's website, provided information about the next meeting occurring on November 2-3, 2012 in Glendale CA. The focus will be high profile cases.

Partnership for Clean Competition - Larry Bowers announced that they have a new postdoctoral fellowship (2 years) and that the application deadline is January 1, 2013. He encouraged interested individuals to visit their website <http://www.cleancompetition.org/>. He also announced grant funding opportunities with the next one having applications due November 1, 2012.

FTCB - Amanda Jenkins announced that information regarding FTCB could be found in the SOFT meeting

SOFT Business Meeting Minutes (Continued)



materials. She reported 12 new certificants were added since the last SOFT meeting and read their names in order for them to be congratulated. Jenkins finished her report by announcing that FTCB had hosted a CE workshop on alcohol at the latest IAC and SAFS meetings. She encouraged interested individuals to visit their website at www.ftcb.org.

Mid-West Association of Toxicology and TDM (MATT) - Doug Rohde announced the next meeting would be held Cleveland, Ohio, April 25-26, 2013.

AAFS - Jeri Roper-Miller reported the 2013 AAFS meeting will be in Washington D.C. February 18-23, 2013 at the Marriott Wardman Park Hotel. She reminded everyone of the firm August 1 deadline for abstract submission.

IATDMCT - Loralie Langman stated the next meeting would be in Salt

Lake City, September 22-26, 2013.

Unfinished Business - President LeBeau asked the membership if there was any unfinished business and there was none.



New Business - President LeBeau recognized the outgoing officers and thanked them for all of their hard work and for being such a great asset to the organization. They were each presented with a plaque.

Director
Jeri Roper-Miller
(3 year term)

Director
Jennifer Limoges
(2 year term)

Treasurer
Peter Stout-
(2 year term)

Vice President
Dan Anderson
(1 year term)

Election

Nominees: LeBeau asked if there were additional nominations from the floor. There being none, the nominees were approved by acclamation.

2013 elected officers:

President
Dan Anderson

Vice President
Peter Stout

Treasurer
Jennifer Limoges

Board of Directors:
William Anderson
(1 year appointment)

Madeline Montgomery
(3 year appointment)

Incoming President's Remarks - President Elect Anderson made his comments brief and thanked President LeBeau, the nominating committee and SOFT for the vote of confidence in his ability to lead the organization. He spoke of how he loves SOFT and the people it represents and the family/volunteer aspect that makes SOFT such a huge success. Anderson spoke of mentorship and the attributes that are inherent in good mentors and how SOFT can mentor the youngest members. He concluded with the announcement of Madeline Montgomery as next year's Special Editor of JAT and presentation of a plaque to outgoing President LeBeau.

Meeting adjourned at 1737 hours.

**The 2013 SOFT Meeting will be held
October 28th—November 1st in
Orlando, FL.**



SOFT AWARDS COMMITTEE: A 2012 UPDATE

Submitted by Phil Kemp, Ph.D., DABFT, Chair

2012 proved to be a busy year for the SOFT Awards Committee. This committee is given the responsibility for selecting recipients of the Educational Research Award (ERA) and the Young Scientist Meeting Award (YSMA). The deadlines for submission and review of the projects were moved up to accommodate the early



July meeting in Boston. Committee members Vina Spiehler, Tom Kupiec, Matt Lambing, Michele Merves, Don Kippenberger and the 2012 Program Co-Chairs, Loralie Langman and Albert Elian, diligently reviewed the submissions and organized them into the scientific program. Three projects met the committee's criteria for recognizing excellent academic and on-the-job research by promising young toxicologists. They led off the scientific platform sessions on Wednesday, July 4, in Boston.

Caroline Betit, an ERA recipient from the Department of Forensic Science at Laurentian University (Sudbury, Ontario), presented her research entitled, "Comparison of Pentobarbital Recovery in Decomposed Bone Following Ultrasonic-Solvent Extraction and Standard Passive Extraction and Gas Chromatography-Mass Spectrometry". Attendees were given new information on developing methods to extract drugs from bone, a difficult matrix for any forensic toxicology laboratory. Trista Wright from East Tennessee State University also re-

ceived the ERA. Her project, "The Effect of Burn Injury on Blood Ethanol and Ethyl Glucuronide Concentrations", generated a great deal of discussion on a topic that toxicologists have wrestled with for a long time. The YSMA recipient was Dani Mata from the Orange County Crime Laboratory (Santa Ana, California). Her research project, entitled "Updating Methods: How to Efficiently Streamline Four Opiate Methods into One" provided a practical way of combining four opiate methods into one to maximize time and cost efficiency. Each of these presentations was well received and the Awards Committee wishes to express our congratulations to the award winners for a job well done.

President Marc LeBeau requested all standing committees in SOFT to produce a handbook that would provide interested parties with information on the mission and function of the committees. The handbook outlines such topics as the composition of the committee, the application process, and the selection criteria. The Awards Committee took on this task and has completed the first draft. The document is now in the hands of the SOFT Board of Directors for their review and comment. This document will assist future committee members, as well as



prospective award applicants and mentors, with the application and selection process.

The Awards Committee would like to encourage students and young scientists to apply for the awards. Go to the SOFT website (www.soft-tox.org), under "SOFT Activities", and review the eligibility and submission requirements for the ERA and YSMA.

It is important to note that there are a couple of important changes for



2013. First, the deadline for submission of 2013 ERA and YSMA application materials has been set to Friday, April 5th, 2013. Secondly, the application materials should be submitted electronically. The Awards Committee is requesting that the application and supporting documents be sent to the committee chair via email. There is no longer a requirement for hardcopies or abstract CD to be submitted.

Finally, the Awards Committee wishes to thank the membership for their continued support of these important functions. The ERA and YSMA are significant milestones for young students and bench chemists working in forensic toxicology. The awards are used for travel costs and provide a means of getting to SOFT meetings for many who would not normally be able to attend. They promote excellence in academic research and encourage young scientists from the United States and around the world to get involved in SOFT and contribute to the knowledge base of forensic toxicology.



DRUGS IN THE NEWS

Send interesting “*Drugs In The News*” articles
to Section Editor

Dwain Fuller, B.S., D-FTCB, TC-NRCC

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Drugs in the News: Polonium-210: The Perfect Poison?

Submitted by Section Editor, Dwain C. Fuller

It was July 5th, the Thursday of the SOFT meeting in Boston. My cell phone rings, displaying a number with a Washington, DC area code. A little odd, but since I use my cell phone for my consulting work, I often get calls that I don't recognize. The caller identified herself as Kim Palchikoff, a producer with the *Voice of Russia* radio program, an English language station broadcasting out of our nation's capital. She wanted me to participate in a radio interview the next day regarding the news that Yasser Arafat's widow planned to exhume his body to determine if he had been poisoned with polonium-210. Ms. Palchikoff wanted me to discuss the toxicological aspects of polonium-210. Well, I had not yet heard the news of Arafat, and I knew little beyond the basics of polonium-210. I did, however, agree to the interview, figuring that I probably knew more, or at least could learn more in the following 24 hours about polonium-210 than they or the general public likely knew. Never pass up an opportunity to look smart to the uninformed masses, I always say. So, I did a phone interview sitting on the lawn across the street from the USS Constitution the next day. All appeared to go well, at least no one called in to tell me I was wrong.

While you, like me, may not have heard the news about Arafat, I'm relatively certain you did hear something about Alexander Litvinenko a few years back. Alexander Litvinenko was a former KGB agent, prior to defecting to London. Litvinenko fell from grace with Russian powers in 1998 after accusing his superiors of ordering the assassination of Russian tycoon and oligarch, Boris Bere-

zovsky. Litvinenko was arrested on charges of “exceeding his authority at work” the following March, but was acquitted in November 1999. Litvinenko was re-arrested and charges were again dismissed in 2000. Litvinenko fled with his family to London and was granted asylum in the United Kingdom. While in the UK, Litvinenko wrote two books, *Blowing Up Russia: Terror from Within* and *Lubyanka Criminal Group*, in which he accused Russian officials, including Vladimir Putin, of terrorism and the ordering of murder. It was later disclosed after his death that he was working as a consultant for the British intelligence services MI6 and MI5.

On November 1, 2006, after meeting with former KGB agents, Dmitry Kovtun and Andrei Lugovoi, Litvinenko fell ill with acute, severe, and progressive gastrointestinal symptoms. His health rapidly deteriorated with his hair falling out and the development of pancytopenia, a shortage of all types of blood cells, including red cells, white cells, and platelets.

Because his symptoms were consistent with either thallium or radiation poisoning, physicians collected a 24 hour urine and tested it for thallium as well as for gamma radiation. The tests yielded nothing of concern. When Litvinenko failed to respond to treatment, his urine was sent to Britain's Atomic Weapon Establishment for further testing. These tests revealed significant alpha particle radiation. Litvinenko died on November 23rd. His death was later attributed to polonium-210 poisoning, after the Health Protection Agency found significant amounts of this rare compound in his body.

Prior to proceeding, perhaps a refresher course in radiochemistry is in order. There are three types of nuclear radiation emitted by radionuclides: **alpha particles, beta particles, and gamma rays.**

Alpha particles are essentially helium nuclei, consisting of two protons and two neutrons. Alpha particles have a relatively large mass and high kinetic energy and can therefore cause direct ionization of other nearby atoms or molecules, but due to their size and 2+ charge have very little penetrating power; a few sheets of paper or intact skin effectively block them. As a result, alpha radiation is only a significant health hazard when ingested or inhaled, which places it in close proximity to sensitive tissues.

Beta particles are high speed electrons or positrons. Beta particles are produced when an unstable nucleus of an atom with an excess of neutrons converts a neutron into an electron, a proton, and an antineutrino. Because of the production of a proton during beta decay, an element of the next higher atomic number is formed in the process. Beta particles have a spectrum of energy levels. High energy beta particles can penetrate a few meters in the air and a few millimeters into tissue. Severe “beta burns” can be produced on the unprotected eyes or skin from exposure. Like alpha particles, beta particles pose a significant health risk from ingestion or inhalation of beta emitting material.

Gamma rays consist of electromagnetic radiation and are of high energy, similar to X-rays. Gamma rays pass easily through most matter including skin and clothing. Gamma

Drugs in the News: Polonium-210 (Continued)



radiation from all routes of exposure poses a significant health risk.

What is Polonium-210?

Polonium-210 is the predominant naturally occurring isotope of polonium. Polonium has over 25 isotopes, but only three: polonium-208, polonium-209, and polonium-210, have appreciable half-lives. Polonium-210 is a natural decay product of uranium-238 and radon-222. Polonium-210 has a half-life of 138 days. Uranium ore contains about 0.1 mg of polonium-210 per ton. Alternately it can be obtained from aged radium salts that contain polonium-210 at about 0.2 mg per gram of radium. However, most polonium-210 is produced by neutron bombardment of bismuth-209 which yields bismuth-210. Bismuth-210 subsequently decays by beta emission to polonium-210.

Toxicity

Polonium-210 is an alpha emitter, therefore it is reasonably safe to handle and transport, however it is extremely toxic when ingested. It is estimated that one gram of polonium-210 could kill 50 million people and sicken another 50 million. In perhaps more fathomable terms, it required probably no more than a microgram to kill Litvinenko, although indications are that much more was used.

Polonium-210 is readily absorbed and is deposited chiefly in the liver, spleen, bone marrow, kidneys, skin, and hair follicles. The half-life in the body (not radioactive half-life) is estimated to be one to two months, being eliminated primarily through urine and feces.

Polonium-210 when ingested does damage particularly to the epithelial

lining of the alimentary tract and the bone marrow, the source of blood cells. The alimentary tract damage results in severe gastric distress in the form of nausea, vomiting, fluid loss, and bloody diarrhea. The bone marrow damage results

in a rapid decline in white blood cells, red blood cells, and platelets causing a suppressed immune system, vulnerability to infection, impaired wound healing, and bleeding disorders.

Detection

Due to its radioactivity and typically low concentration, the preferred method for detecting polonium-210 is by alpha-particle spectroscopy, which identifies polonium-210 by its signature alpha particle emission with an energy of 5.3 MeV.

However, before we get overconfident, let's do some math. As previously stated polonium-210 has a radioactive half-life of 138 days and Yasser Arafat died in November of 2004. Therefore, as of July 2012, approximately 7.5 years, or 20 half-lives have passed. That means that the residual polonium-210 in Arafat's body, if indeed he were poisoned with polonium-210, would be approximately 1 millionth of what it was when he died. Furthermore, as discussed above, a lethal dose is estimated to be around 1 microgram, not to mention that he lived for several days after becoming ill. You see where I'm going with this? After all this time, I don't like the odds of finding conclusive proof of polonium-210 poisoning whether it happened or not. However, since polonium-210 is such a rare element in the environment, findings of polonium-210 significantly above background may indeed indicate poisoning.

Summary

So is polonium-210 the perfect poison? Polonium-210 possesses the "perfect poison" attributes of being

lethal in small quantities, being relatively safe to handle by the poisoner, and rapid disappearance from the body and the environment. Additionally, its detection requires specialized instrumentation and an alert medical or forensic staff to even suggest its presence. However, it does suffer one major drawback: its availability. The production of a reasonable amount of polonium-210 requires a nuclear reactor, a fact that almost always indicates the collusion of a government entity. This alone violates one of the most sacred tenets of cloak and dagger work...plausible deniability.

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CASE NOTES

Send interesting "Case Notes" to Section Editor

Matthew Barnhill, Ph.D., DABFT

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CASE NOTES : A DFSA CASE and GHB: MEANS and OPPORTUNITY

Submitted by Thomas Z. Bosy, PhD and Eric Shimomura, PhD

Division of Forensic Toxicology, Armed Forces Medical Examiner System

Dover AFB, DE

Introduction

Gamma-hydroxybutyric acid (GHB), also known as 4-hydroxybutanoic acid, is a naturally occurring metabolic precursor in the synthesis of central neurotransmitters GABA, Glycine and Glutamate. Typically found in high concentrations in the human central nervous system, GHB can also be detected in wine, beef and some small citrus fruits. GHB as the sodium salt (sodium oxybate) is sold by Jazz Pharmaceuticals under the name Xyrem to treat cataplexy and excessive daytime sleepiness in patients with narcolepsy. Classified as an illegal drug in many countries, it is currently regulated in Australia and New Zealand, Canada, most of Europe and in the US. As an illicit "street drug" (aka "Georgia Home Boy", "Juice", "Liquid Ecstasy", "Mils", "G", "Liquid X" and "Liquid G"), GHB is considered a controlled substance with Schedule I classification, while the medical formulation (Xyrem, referred to as a 'GHB product') is classified as a schedule III controlled substance. In general, the doses used recreationally are between 500 mg and 3,000 mg. When used recreationally, GHB is typically found as the sodium or potassium salt, which are odorless white crystalline powders, or as a GHB salt dissolved in water to form a clear solution (typically of an unknown and potentially dangerous concentration). The sodium salt of GHB has a distinctively salty taste. Other salt forms such as calcium GHB and magnesium GHB have also been reported, but the sodium salt is by far the most common. The prescription formulation of sodium oxybate is available as a 180 mL bottle of a 500

mg/mL GHB solution, with dosing regimens ranging from 4.5g/night to 9g/night in two equally divided doses. GHB is a CNS depressant and can share many of the behavioral effects seen after alcohol administration, such as euphoria, memory disturbances, disinhibition, enhanced sensuality and emipathogenesis. Due to its pharmacology, sudden and rapid onset of action and rapid elimination from the body, GHB has also gained a reputation as a potential drug involved in Drug Facilitated Sexual Assaults (DFSAs).

Due to its endogenous production and demonstrated potential for in-vitro production in inappropriately preserved or stored samples, care must be taken interpreting GHB levels in biological fluids. Studies have reported significant variation in endogenous levels of GHB in the urine in addition to credible evidence suggesting that prolonged unrefrigerated storage may result elevated concentrations of GHB above those measured at collection. As a result, most forensic laboratories follow a general rule of thumb recommending a GHB cutoff concentration above 10mg/L be used to distinguish endogenous levels of GHB from external administration.

Case History

Blood and urine were received by the laboratory with the sender requesting analysis for drugs associated with DFSA. The blood and urine were analyzed for ethanol using head space gas chromatography (Agilent 7697A Head-space Sampler/ 7890A GC). The urine was tested for drugs of abuse using an immunoassay screen on a Hitachi Cobas 311 Analyzer, and for drugs with alkaline chemistry using mixed mode

solid phase extraction and analysis by GC/MS (Agilent 6890N GC/ 5975 MSD). Urine and blood underwent specific analysis for GHB using mixed mode solid phase extraction, conversion to the TMS derivative and analysis by GC/MS in SIM mode using a d₆ deuterated GHB internal standard. Analytical results were negative for ethanol, drugs of abuse and basic drugs in both matrixes. The blood was negative for GHB, but the urine was reported as positive at a concentration of 24 mg/L. Since this result was above our 10mg/L cutoff, the GHB in the urine specimen was believed to be from exogenous administration. This case was referred to trial with the laboratory results introduced as evidence of GHB ingestion from an external source.

Based on the testimony brought out in court, it was established that the victim voluntarily consumed 3 shots of vodka between about 9 to 10pm. At approximately 10:30pm, the accused offered the victim a fruit punch drink which was described as containing a "different kind" of alcohol. It was this drink that allegedly contained the GHB. The victim testified that she didn't like the taste, considered it strangely salty, and refused to drink more than a sip. The victim at this point, feeling uncomfortable with the situation, decided to walk home, across the street, despite the accused's objections. The accused followed the victim trying to convince her to return to his house and finish the fruit punch drink. The victim relented, consuming the entire drink in one swallow. After about 5 minutes, the victim described during testimony that she abruptly felt very intoxicated

CASE NOTES : A DFSA CASE and GHB: MEANS and OPPORTUNITY (Continued)

and had to sit down. Shortly afterwards the victim testified she was going in and out of consciousness and that this is when the rape took place. She further describes passing out completely after the sexual encounter was over. At about 12:40am, the victim's boyfriend came to the home of the accused to look for the victim. He woke the victim up by vigorously shaking her and testified that the victim had difficulty walking and talking and that she needed assistance to cross the street to her home. The victim 'collapsed' on the couch upon arriving in her home and didn't wake up until about 5am that morning. The victim and her boyfriend decided she needed to be seen by a doctor, so she was driven and admitted to the hospital around 6:30am. A sexual assault exam was performed and blood and urine were collected about 11-11:30am.

In addition to the DNA evidence which supported a sexual encounter, a prescription history revealed the accused had been prescribed Xyrem for narcolepsy.

Discussion

It was brought out during testimony that endogenous GHB levels reported in the literature are noticeably lower (range 0-7mg/L) than 10 mg/L lab cutoff and that the victims measured urine concentration of 24 mg/L was highly suggestive of external administration of GHB. Our laboratory has tested over 800 specimens for GHB since 2003, including this case; only one other result was reported above our 10mg/L cutoff. There were pre-trial discussions concerning the possibility of in-vitro production of GHB in the victim's sample. Chain of custody records, however, indicated the urine specimen was properly refrigerated before and after our laboratory received the sample. It has been reported in the literature however, that even at elevated temperature (21°C) in-vitro production of GHB in urine would be expected to be less than 10 mg/L.

In controlled GHB administration studies, concentrations of GHB in the urine were consistently below measurable levels after 12 hours, and usually much shorter than 12 hours for

doses of 72mg/kg or less". The combined effect of extensive metabolism, rapid elimination and less than 2% of a given dose being excreted as unchanged drug in the urine, account for this extremely short detection window. While there was no way to determine the actual amount of GHB added to the drink, the presence of GHB in the urine above 10mg/L in combination with the reported behavior of the victim, were compelling evidence supporting oral GHB administration. Additionally, the accused's possession of prescription GHB, behavioral testimony and opportunity to adulterate the fruit punch are forceful indications of GHB use in this act of DFSA.

For obvious reasons, urine concentrations above 10 mg/L of GHB after accusations of sexual assault are rare in our laboratory, and given potential discrepancies recalling the timeline of the event, we believe this case details a real-life example of GHB administration in the commission of a drug facilitated sexual assault.

As a side note, sexual assault examinations can be lengthy procedures. Due to the pharmacokinetics of many of the drugs used in DFSA, it is advisable to instruct personnel responsible for performing these examinations to collect forensic specimens as early in the process as feasible. Additionally, due to the potential for in-vitro production of GHB in urine (and blood) refrigeration after collection is essential. Lastly, due to the GHB prescription evidence in this case, we focus exclusively on GHB as the causative agent, but it should be understood that administration of gamma-butyrolactone or 1, 4 butanediol, both pro-drugs, can produce the same urine levels of GHB.

The views, opinions or assertions contained herein do not necessarily represent those of the Armed Forces Medical Examiner System, the Department of the Army or the Department of Defense.

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CASE NOTES : TWO CASES INVOLVING FLUOROAMPHETAMINES

Submitted by Mark Lichtenwalner, Ph.D., Kristie Barba, M.S., Laura D. Knight, M.D., Deborah G. Johnson, M.D. ; Onondaga County Health Department, Syracuse, NY

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Case #1

The Onondaga County Medical Examiner's Office and Toxicology Laboratory was recently involved with a case that was positive for 4-fluoroamphetamine, in addition to the finding of synthetic cannabinoids. The decedent was a 26-year-old male with a history of remote intravenous drug use (status post inpatient rehabilitation 6 months prior), recent use of "synthetic marijuana", cigarette smoking, and a 2-month history of a hacking cough. He presented to a local hospital with chest pain, shortness of breath, and a cold pulseless right foot. He suffered respiratory failure and was intubated, then was taken to the operating room for an embolectomy on his right lower extremity. He suffered cardiopulmonary arrest and was resuscitated. Chest radiographs showed a diffuse infiltrative process in the lungs. His condition continued to deteriorate and he expired despite medical intervention. Autopsy examination revealed diffuse alveolar damage (DAD) of the lungs (the histopathological correlate of the clinical acute respiratory distress syndrome, ARDS) along with smoker's respiratory bronchiolitis. No clear etiology of DAD/ARDS was identified. Other findings included cerebral edema and focal cardiac subendocardial hemorrhage (both agonal findings associated with hypoxia and prolonged resuscitative efforts). The heart was marginally enlarged at a mass of 470 grams, which is greater than the mean predicted normal heart weight given a body mass of 225 pounds, and at the upper 95th confidence interval for body height of 71 inches.¹ The heart and coronary arteries were otherwise unremarkable.

Samples collected during autopsy included central blood, peripheral blood, vitreous fluid, liver, and gastric

contents. Antemortem hospital samples were also received. Samples were tested for volatiles and drugs using immunoassay and GC/MS for alkaline and weakly acidic/neutral compounds. An antemortem blood sample was negative for volatiles, positive for cannabinoids and amphetamine by ELISA, and positive for doxylamine and a compound initially unidentifiable by GC/MS. The GC and MS of this compound were similar to amphetamine, but both relative retention time and mass spectral identification were inconsistent with amphetamine. The drug chemistry department was consulted, and using their Designer Drug Database 2010, a positive identification was made as 4-fluoroamphetamine. A reference standard of 4-fluoroamphetamine (4-FA) was obtained, and the compound's characteristics were determined by GC/MS and LC/MS. Based on those results, a positive identification for 4-fluoroamphetamine was made. A portion of the sample was sent to a reference laboratory for cannabinomimetic testing; the result was positive for AM-2201, JWH-122 and JWH-250, all less than 1 ng/mL.

As there was no reference laboratory for the analysis of 4-FA, we undertook to develop and validate a GC/MS assay consulting a previously published paper.² Essentially, the procedure consists of a mixed-mode solid-phase extraction with derivatization using PFPA, and SIM GC/MS analysis. The procedure was linear from 10-750 ng/mL, had an LOD of 2.5 ng/mL, and imprecision of less than 10% CV. Eleven other structurally similar, amphetamine-like compounds were tested; no interference was observed. Accuracy was assessed by purchasing 4-FA from a second source that was used to prepare matrix-matched QC samples at

40 and 400 ng/mL or /g. With one exception, all calculated QC values (N = 40) were within 10% of expected value. There was no evidence of carryover following a sample targeted to contain 750 ng/mL. The blood: plasma ratio was determined to be 1.26 at 100 ng/mL. After validation, the method was applied to the case, with the following results. All values are in ng/mL or ng/g.

Antemortem blood	
11/26/2011 @ 2105:	329
11/26/2011 @ 2300:	278
Postmortem femoral blood:	489
(Time of death 11/27/2011 @ 0322)	
Central blood:	1001
Vitreous fluid:	648
Liver:	2656

For the amphetamine immunoassay, the cross-reactivity of 4-FA was determined to be 14% at a concentration of 50 ng/mL. We cannot be certain that the detected compound was in fact 4-FA, and not either the 2- or 3- isomer, which have similar mass spectra.

The cause of death was diffuse alveolar damage / acute respiratory distress syndrome. Recent use of 4-FA and synthetic cannabinoids was a significant contributory condition listed on the death certificate. Due to the contribution of drug use, the manner of death was accident.

Case #2

The decedent was a 28-year-old female with a history of depression and suicidal ideation, who was on verapamil prophylaxis for debilitating migraine headaches and hypertension. She was found by her mother sitting on the floor next to her bed, comatose and snoring. She had been complaining of nausea that morning and the previous night.

CASE NOTES : TWO CASES INVOLVING FLUOROAMPHETAMINES (*Continued*)

Emergency responders took her to a local hospital where a urine toxicology screen was positive for tricyclic compounds. Approximately 29 pills could not be accounted for from her desipramine prescription. She began to seize in the Emergency Room and was moved to the intensive care unit where her condition deteriorated. The electrocardiogram showed a widened QRS and prolonged QTc interval. She developed bradycardia followed by cardiac arrest and could not be resuscitated, despite over an hour of efforts. She was pronounced dead less than 24 hours after discovery. A complete autopsy found a morbidly obese young woman with hepatosplenomegaly (liver weight 3040 g, spleen 420 g), a mildly hypertensive heart (410 g) and 8 intact, recognizable verapamil pills and multiple fragmented pills of similar appearance in the stomach.

Samples collected during autopsy included peripheral blood, vitreous fluid, urine, liver, and gastric contents. Antemortem hospital samples were also received. Samples were tested for volatiles and drugs using immunoassay and GC/MS for alkaline and weakly acidic/neutral compounds. An antemortem blood sample was negative for volatiles, positive for benzodiazepines and amphetamines by ELISA, and positive for 4-FA, desipramine (6.5 mg/L), etomidate, verapamil (0.55 mg/L), norverapamil, zonisamide, and a compound initially unidentifiable by GC/MS. The GC and MS data for this compound were similar to methamphetamine, but both relative retention time and mass spectral identification were inconsistent with methamphetamine. The drug chemistry department was consulted, and using their Designer Drug Database 2010, a positive identification was made as 4-fluoromethamphetamine. A reference standard of 4-fluoromethamphetamine (4-FMA) was obtained, and the compound's

characteristics were determined by GC/MS. Based on that result, a positive identification for 4-FMA was made at an estimated (single point calibration) concentration of 0.2 mg/L. As in the first case, we cannot be certain that the detected compound was in fact 4-FMA, and not either the 2- or 3-isomer, which have similar mass spectra.

The cause of death was acute mixed drug (desipramine and verapamil) intoxication with significant contributory conditions of hypertension and morbid obesity listed on the death certificate. The fluoroamphetamine and fluoromethamphetamine were considered to be incidental compared to the other drugs present. The manner of death was suicide.

Pharmacology: According to the literature, fluoroamphetamine clearly shows psychostimulant-like properties.^{2,3} Structure-activity studies demonstrated that pharmacological properties differed from that of parent molecules and that of the para substitution of phenylalkylamines. This dif-

ference could partially be due to the increase in lipophilicity and enhanced crossing of the blood brain barrier by central nervous system agents like fluoroamphetamine simply by the substitution of a hydrogen atom with a fluorine atom. Animal studies also demonstrated that fluoroamphetamine was less potent than amphetamine at inhibition of dopamine uptake, but more potent than amphetamine at inhibition of serotonin reuptake.³

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THE CONSORTIUM OF FORENSIC SCIENCE ORGANIZATIONS (CFSO) NEWSLETTER

The Consortium of Forensic Science Organization Monthly Reports for May, June and July were submitted by SOFT and ABFT representatives, Laurel Farrell and Yale Caplan, Ph.D. The CFSO newsletters can be found in their entirety attached to the September issue of TOXTALK™. See attachment No. 2.



SOFT and ABFT are members of CFSO.

SOFT DRUGS AND DRIVING COMMITTEE

Highlights of Special Session at SOFT Meeting In July 2012

Coordinated by Amy Miles, Wisconsin State Laboratory of Hygiene

The Effects of Cannabis on Driving Skills

Rebecca L. Hartman and Marilyn A. Huestis; Chemistry and Drug Metabolism, Intramural Research Program, National Institute on Drug Abuse, NIH, Baltimore, MD, USA

This presentation reviewed the current literature on cannabis and driving, highlighting epidemiological and experimental data. Evidence suggests recent smoking and/or blood Δ^9 -tetrahydrocannabinol (THC) concentrations ≥ 2 to 5 ng/mL (task dependent) are associated with significant driving impairment, particularly in occasional smokers. Critical tracking, reaction time, divided attention tasks, and lane-position variability showed cannabis-induced impairment, enhanced by combining cannabis with alcohol. Future cannabis-driving research should emphasize challenging tasks, such as those based on divided attention, and include occasional as well as chronic daily cannabis smokers.

Sustained Abstinence Improves Psychomotor Function in Chronic Daily Cannabis Smokers

Wendy M. Bosker, Erin L. Karschner, Dayong Lee, Robert S. Goodwin, Jussi Hirvonen, Robert B. Innis, Eef L. Theunissen, Kim P. C. Kuypers, Johannes G. Ramaekers and **Marilyn A. Huestis**; Chemistry and Drug Metabolism, Intramural Research Program, National Institute on Drug Abuse, NIH, Baltimore, MD, USA

We hypothesized that psychomotor performance of chronic, daily cannabis smokers would be impaired on admission as compared to controls, and that performance would improve during sustained abstinence. Psychomotor function of cannabis smokers was assessed at baseline and after 8, 14-16 and 21-23 days of continuously monitored abstinence on a closed research unit. Psychomotor performance in the critical tracking and divided attention tasks in 19 male chronic, daily cannabis smokers was impaired at baseline relative to the comparison group. Sustained cannabis

abstinence moderately improved critical tracking and divided attention performance in chronic, daily cannabis smokers, although impairment was still observable compared to controls after 3 weeks of abstinence. Withdrawal might have affected performance of chronic smokers, but primarily during the 1st week of abstinence. Impairments in chronic cannabis smokers may result from residual THC concentrations in blood (Karschner et al 2010, *Addiction*), which remained present for up to 24 days after last use. Chronic daily cannabis smokers had impaired psychomotor function as compared to occasional drug users for at least three weeks of sustained cannabis abstinence.

Zolpidem and Driving - A review of Colorado cases

Sarah Urfer; ChemaTox Laboratory, Boulder, CO, USA

Zolpidem DUID cases are on the rise in Colorado. In this case review, we found the levels of zolpidem detected in drivers was frequently above the therapeutic range, the drivers were taking zolpidem when they did not intend to sleep, and despite high levels of zolpidem many of them did not experience memory loss. Additionally, the behavior of the driver and the driving reported had common factors such as hitting stationary objects, extreme lane deviation, visual disturbances and nonsensical statements from the drivers. Driving while impaired by zolpidem is a public safety issue however many labs do not look for zolpidem in their standard DUID drug screens and therefore many of these cases may be missed.

Driving Under the Influence of Drugs Involving Phenazepam in Virginia

Curt E. Harper, Emily Lawrence, Jason Hudson; Alabama Department of Forensic Sciences, Hoover, AL, USA

Driving under the influence of drugs (DUI/D) cases involving phenazepam are on the rise in Virginia. We presented data on eight phenazepam case histories and shared a video that detailed severe cognitive, psychomo-

tor, and gross motor function impairment. It appears that phenazepam is often used in conjunction with or as a component of marijuana, synthetic cannabinoids, or baths salts, but the individual may not know what they are taking. An emphasis should be placed on phenazepam testing in forensic toxicology laboratories due to the continued increase in DUI/D cases involving phenazepam in the United States.

Detecting and Distinguishing 5-MeO-DIPT from Ropinirole in Wisconsin Drivers

William Johnson and Amy Miles; Wisconsin State Laboratory of Hygiene, Madison, WI, USA

The hallucinogen 5-methoxy-N,N-diisopropyltryptamine (5-MeO-DIPT, Foxy, Foxy Methoxy) and ropinirole (Requip) pose an analytical challenge and potential risk for misidentification stemming from structural similarities and nearly identical mass spectra. The n-butyl chloride liquid:liquid extraction of 5-MeO-DIPT and ropinirole standards within the same run followed by careful evaluation of GC/NPD and GC/MS spectra was critical in distinguishing between both compounds. Since both mass spectra possess a distinctive 114 amu base peak, key secondary ions were





FROM THE TOXICOLOGY LITERATURE

Submitted by Barry Levine, Ph.D., DABFT

Office of the Chief Medical Examiner, Baltimore, MD

Forensic Science International

Vol. 215 Feb 2012

Jones et al examined free morphine concentrations in heroin-related deaths, traumatic deaths with heroin use and DUID cases with heroin use. Only cases positive for 6-acetylmorphine in blood or urine were included in the study. Their findings were similar to other studies with regards to postmortem cases. The median free morphine concentration was essentially the same in heroin-only drug deaths, poly-drug deaths and traumatic deaths. The presence of ethanol caused a significant decrease in the median free morphine concentration and the presence of a benzodiazepine caused a significant increase in the median free morphine concentration in drug death cases. The distribution of free morphine concentrations in DUID cases overlapped the distribution of free morphine concentrations in death cases.

Kronstrand et al measured ethyl glucuronide (EtG) in hair specimens from individuals who drank either 16 or 32 g of ethanol daily for 3 months. The proximal 2 cm of each collected hair was analyzed. Subjects consuming the larger daily dose had hair EtG concentrations less than 30 pg/mg in the portion of the hair tested; this is the cutoff recommended by the Society of Hair Testing to distinguish between social drinking and excessive drinking. Hair EtG concentrations were in the 5-11 pg/mg range. Most of the hair specimens from the lower dosing group were negative for EtG in the hair at a limit of quantitation of 2 pg/mg.

Forensic Science International

Vol. 216 March 2012

Simic et al measured endogenous ethanol concentrations by head space gas chromatography in 130 diabetics and 30 controls. In the controls, blood ethanol concentrations ranged from 0.02 to 0.72 mg/L with a mean of 0.40 and a median of 0.49 mg/L. In the 130

diabetic individuals, the blood ethanol concentrations ranged from 0.03 to 9.40 mg/L with a mean of 2.65 and a median of 2.01 mg/L. Although the differences in concentrations between the two groups were statistically significant, none of the measured ethanol concentrations were forensically significant. The highest ethanol concentration measured, 9.40 mg/L corresponds to an ethanol concentration of 0.00094 g/100 mL, using more common units of ethanol measurement.

Journal of Analytical Toxicology

Vol 36 March 2012

Pharmacokinetic parameters after a controlled administration of a 25 mg/kg dose of GHB to 12 volunteers was reported by Brailsford et al. Maximum urinary concentrations of GHB occurred at 1 hour in 11 of the subjects; for the 12th volunteer, the maximum concentration occurred at 2 hours. By 4 hours, GHB concentrations in urine were less than 10 mg/L in 11 of the subjects (6 hours in the 12th subject). All serum concentrations were less than 5 mg/L by 3 hours after ingestion.

Fitzgerald et al used LC/MS/MS with full scan ion spectra for both the qualitative identification and quantitation of amphetamine, methamphetamine, benzoylecgonine and opiates in urine specimens. Full scan product ion spectra were obtained using an ion trap while selected reaction monitoring was used for quantitation. Specimen preparation for the amines and benzoylecgonine was the addition of a deuterated internal standard, dilution with water and centrifugation; opiate specimens were hydrolyzed prior to introduction into the LC. Standard validation parameters were provided for all quantitative assays and a purity fit greater than 70% and appropriate retention time criteria were used for identification.

Journal of Medical Toxicology

Vol 8, 2012

Prosser and Nelson published a review

of the synthetic cathinones (bath salts). The review includes information about the use and abuse of these substances. A table of physiological effects attributed to these drugs is given and is subdivided based on the organ system affected. The pharmacokinetic information provided is primarily from animal and in vitro cell studies. They also summarize the limited postmortem data published up to the time of the review.

Journal of Forensic Sciences

Vol 57, March 2012

Musshoff and Madea presented data on 430 DUID cases where only amphetamine, methamphetamine, MDEA or MDMA were the only psychoactive drugs that were present. About 79% of these cases were positive for amphetamine only; the mean and median concentrations in these cases were 0.18 and 0.12 mg/L, respectively. The highest amphetamine concentration detected was 1.049 mg/L. The authors reviewed the police observation reports and/or the medical reports on these cases and found that a significant number of impaired drivers displayed symptoms of CNS depression rather than CNS stimulation. The authors attributed this observation to either sleep deprivation or the after-effects of the drug.

Journal of Analytical Toxicology

Vol 36 April 2012

Shanks et al measured 2 common synthetic cannabinoids, JWH-018 and JWH-073 in 18 postmortem specimens using LC-MS-MS. All of the specimens contained JWH-018 at concentrations ranging from 0.1 to 199 ng/mL. Eight of these specimens also contained JWH-073 at concentrations ranging from 0.1 to 68 ng/mL.

Andresen et al measured fentanyl concentrations in 118 postmortem femoral blood specimens where death was not attributed to drug tox-

AMERICAN BOARD OF FORENSIC TOXICOLOGY (ABFT) NEWS

Submitted by Bruce Goldberger, Ph.D., DABFT, President

It is a privilege to serve the forensic toxicology community as the President of the American Board of Forensic Toxicology (ABFT). I believe that all of us should strive to uphold the guiding principles of our field, and certification and accreditation is vital in this goal.

For those unfamiliar with the ABFT, the objective of the Board is to –

To establish, enhance, and revise as necessary the standards of qualification for those who practice forensic toxicology, and to certify as qualified scientists those voluntary applicants who comply with the requirements of the Board. In this way, the Board aims to establish a practical and equitable system of readily identifying those who possess the requisite qualifications and competence in forensic toxicology. Currently, there are a total of 235 Certificants – 140 Diplomates and 95 Specialists.

To establish, enhance, and maintain standards of qualification for those laboratories that practice Postmortem Forensic Toxicology or Human Performance Toxicology, and to accredit as qualified laboratories those applicants who comply with the requirements of the Board. In this way, the Board aims to establish a practical and equitable system of readily identifying laboratories who have demonstrated the requisite qualifications and competence in forensic toxicology. Currently, there are 30 accredited laboratories.

Effective July, the Officers of the ABFT are:

President

Bruce Goldberger, Ph.D., D-ABFT

Vice President

Daniel Isenschmid, Ph.D., D-ABFT

Secretary

Jeri Roper-Miller, Ph.D., D-ABFT

Treasurer

Loralie Langman, Ph.D., D-ABFT

In addition, the Members of the ABFT Board are:

Yale Caplan, Ph.D., D-ABFT

Frederick Fochtman, Ph.D., D-ABFT

Brad Hall, Ph.D., D-ABFT

Graham Jones, Ph.D., D-ABFT

Robert Middleberg, Ph.D., D-ABFT

Susan Mills, M.S., FTS-ABFT

Theodore Shults, J.D., M.S. (Public member)

Elizabeth Spratt, M.S., D-ABFT

Marina Stajic, Ph.D., D-ABFT

Ruth Winecker, Ph.D., D-ABFT

This has been a very active year so far for the ABFT. In July, Dr. Bradford Hepler, ABFT Diplomate and former Director of the Wayne County Medical Examiner's Office Toxicology Laboratory, was hired as the ABFT Executive Director. Dr. Hepler will be responsible for the facilitation of the day-to-day business of the Board.

Also, the Accreditation Committee is finalizing a significant update to the laboratory accreditation documents including the laboratory manual and checklist. Copies of the revised documents will be sent to all laboratory directors before the end of the year.

Congratulations to those who were

recently certified by the Board:

Diplomate:

Sandra Bishop-Freeman, PhD

Damon Borg, PhD

Prentiss Jones, PhD

Sherri Kacinko, PhD

Michele Merves, PhD

Adam Negrusz, PhD

Brianna Peterson, PhD

Michael Smith, PhD

Duncan Stephen, PhD

(United Kingdom)

Carl Wolf, PhD

Yi Ju Yao, PhD (Singapore)

Specialist:

Tara Catlin, BS

Jenna Chin, MS

Bart Gray, BS

Theresa Hippolyte, MS

Kevin Shanks, MS

Edwin Smith, MS

Michael Stypa, MS

Mary Zaney, BS

Finally, the Certificant examinations will be administered at University of California San Francisco on Monday, December 3, 2012. In addition, the examinations will be given at the 2013 TIAFT meeting in Portugal.

For additional information regarding the Board, please visit www.abft.org.



FROM THE TOXICOLOGY LITERATURE (Continued)

icity and the dose of the fentanyl patch was known. These concentrations were compared to serum fentanyl concentration obtained from 27 patients receiving similar doses of fentanyl. The highest serum fentanyl concentration was 3.6 ng/mL and occurred with the use of a 200 µg/hour patch. Postmortem blood concentrations as high as 78 ng/mL were measured using a similar patch. The average postmortem blood concentration was nine times greater than the average serum concentration within the same dose. Neither postmortem blood nor serum concentrations correlated with dose. The authors concluded that the proper interpretation of postmortem fentanyl concentrations cannot be made properly relying exclusively on the quantitative result.



TOXICOLOGY-BITS & PIECES

Send interesting "News and Notes" to Section Editor

J. Robert Zettl, MPA

jrzettl1@msn.com

MEASUREMENT UNCERTAINTY—FORENSIC COMMUNITY SURVEY

Submitted by Jennifer F. Limoges, M.S.; Supervisor of Forensic Services/Toxicology & Breath Testing, New York State Police Forensic Investigation Center, Albany, NY

Jennifer.Limoges@troopers.ny.gov

In May of 2012, a brief survey was conducted to help the forensic community understand what their peers were doing relative to measurement uncertainty. It focused on whether labs were pursuing measurement of uncertainty estimations, and if so, were they reporting it. The survey did not attempt to address how labs were calculating their uncertainties. Requests to participate in the survey were emailed out to members of the Society of Forensic Toxicologists (SOFT) and the International Association of Chemical Testing (IACT).

Responses were received from 172 laboratories, representing 11 different countries and 37 US states. Of the respondents, 40% performed blood alcohol analysis, 42% performed quantitative drug analysis, 12% performed breath testing instrument calibrations, and 6% certified breath testing reference materials. These analyses were conducted for casework involving impaired driving (29%), postmortem investigation (23%), drug facilitated crimes (21%), non-regulated employee drug testing (9%), breath instrument calibration programs (9%), and other types of casework (9%).

Blood Alcohol Analysis (n=131):

62% of respondents have estimated the uncertainty of their blood alcohol test method. For the 32% who have not, 62% intend to. A 99.7% level of confidence was selected by 42% of the labs, while a 95% level of confidence was selected by 45%. For those labs who have estimated their uncertainty, only 26% are currently including it on their laboratory reports.

Quantitative Drug Analysis (n=124):

37% of respondents have estimated the uncertainty of their quantitative

drug test methods. For the 63% who have not, 51% intend to. A 99.7% level of confidence was selected by 19% of the labs, while a 95% level of confidence was selected by 63%. For those labs who have estimated their uncertainty, only 19% are currently including it on their laboratory reports.

Breath Instrument Calibration (n=40):

43% of respondents have estimated the uncertainty of their breath instrument calibrations. For the 57% who have not, 74% intend to. A 99.7% level of confidence was selected by 31% of the labs, while a 95% level of confidence was selected by 50%. For those labs who have estimated their uncertainty, 37% are currently including it on their calibration reports.

Breath Reference Materials (n=29):

38% of respondents have estimated the uncertainty of their breath reference material testing method. For the 62% who have not, 53% intend to. A 99.7% level of confidence was selected by 19% of the labs, while a 95% level of confidence was selected by 62%. For those labs who have estimated their uncertainty, 33% are currently including it on their laboratory reports.

The results of the survey were presented at the Society of Forensic Toxicologists 2012 Annual Meeting, as part of the Workshop "Uncertainty of Measurement – Reporting for the Forensic Community". Thank you to Carrie Kirkton, Melissa Kennedy, and Laurel Farrell for their assistance in creating the survey. And thank you to all the colleagues who took the time to respond.



NEW DRUGS & TECH-IN Tidbits



Send interesting "New Drugs and Tech-IN Tidbit" articles to Section Editor

Dan Anderson, M.S., FTS-ABFT, D-ABC

DAnderson

@coroner.lacounty.gov

AAFS TOXICOLOGY SECTION NEWS

Submitted by Loralie Langman, Section Secretary, Ruth Winecker, Section Chair and Phil Kemp, Past Section Chair

The 2013 AAFS meeting will be held at the Marriott Wardman Park Hotel in Washington DC February 18-23, 2013. The deadline for abstract submission for the 2013 meeting is now past, the peer review process is complete and the program elements have been submitted to AAFS for approval. Program chair Ashraf Mozayani (ashraf.mozayani@meo.hctx.net) and co-chair Dwain Fuller (Dwain.Fuller@med.va.gov) report that there has been a huge increase in the number of abstracts submitted this year and they deserve a round of applause for their work in making the next meeting a success. Official accep-

tance letters for abstracts and workshops from AAFS are to be sent in mid-October and the preliminary program will be published in November.

The AAFS annual meeting is an opportunity to interact not only with other forensic toxicologists but also colleagues from other forensic disciplines. We encourage all SOFT members to participate in the AAFS meeting as an attendee, presenter, moderator, or other volunteer. As an added bonus, these activities fulfill some of the requirements for promotion. Those who are already eligible for promotion are encouraged to fill out an application as some section activities (e.g. section

officer or committee chair) require full membership or fellow status in order to participate. As a reminder, time is short; this year's deadline for receipt of all application materials is October 1, 2012.

The Toxicology Section Nominating Committee is accepting nominations for Chair and Secretary, and for a position on the Awards and Scholarship Committee. Please submit your nominations to the committee no later than October 1, 2012. Nominations should be submitted to the Nominating Committee Chair, Phil Kemp (philip.kemp@faa.gov; 405-954-6262).

YOUNG FORENSIC TOXICOLOGISTS (YFT) COMMITTEE

Submitted by Jayne Thatcher, Ph.D.

The Young Forensic Toxicologists (YFT) Committee would like to thank all who participated in the YFT events at the SOFT 2012 Annual Meeting in Boston. The week started with a YFT Symposium attended by approximately seventy young scientists. Following a social hour, the formal program began with a welcome from SOFT President, Dr. Marc LeBeau. The keynote speaker, Dr. Matt Zuckerman from the Medical Toxicology Fellowship at the University of Massachusetts Medical School, provided a great presentation on his approach to toxicology cases in the emergency department. The evening concluded with an open forum where a variety of topics were discussed, including new drugs, method validation and courtroom testimony.

The following day seventeen college students from across the country attended the SOFT Student Enrichment Program (SSEP). The committee would like to thank Amy Miles, Ann Marie Gordon, Ruth Winecker, Oliver Grundmann, Marc LeBeau, and Mike Wagner for sharing their knowledge and experiences in the field with the attendees. The students were enthusiastic and eager to learn more about our field and their questions led to some great discussions.

The final event hosted this year by the YFT committee was the SOFT YFT/ Leo Dal Cortivo Poster and Oral Presentation Award Competition. Approximately forty eligible participants submitted an abstract and indicated they wished to be considered for the award which included a prize of \$1000 and a free registration at a future SOFT meeting. There were some great presentations and the committee thanks all who participated. The 2012 winners were announced at the closing ceremonies and are as follows:

- Claire Kaspar from Cuyahoga County Medical Examiner's Office for her poster titled "An explanation of lingering "opiate" deaths? Relative concentrations of opiates in medulla and femoral blood following lethal intoxications."
- Brian Waters from the Department of Forensic Medicine at Fukuoka University for his presentation titled "A toxicological approach to confirm the inhalation of pyrolysis products in burned cadavers using headspace solid-phase microextraction and cryogenic gas chromatography-mass spectrometry."

As a reminder, the YFT Committee aims to encourage young forensic toxicologists to join SOFT and actively participate in annual meetings; facilitate networking opportunities among young forensic toxicologists, particularly among first time meeting attendees; and promote training and educational opportunities for young forensic toxicologists. Please help us spread the word about our committee and refer any eligible scientists that may be interested in our events to either learn more about us at our link on the SOFT website or contact us directly at softyft@gmail.com.

We will be planning another educational and fun YFT program for the SOFT 2013 Annual Meeting in Orlando and hope many of you will participate in our events.



NATIONAL SAFETY COUNCIL COMMITTEE ON ALCHOL AND OTHER DRUGS

Submitted by Dennis V. Canfield, Ph.D., Chair of Committee on Alcohol and Other Drugs

The National Safety Council's Committee on Alcohol and other Drugs (CAOD) has a seventy five year history of actively supporting NSC efforts to save lives and prevent injuries at work, in homes, and in communities throughout the nation. By facilitating the exchange of information within and among the forensic scientific community and other fields related to the study and control of alcohol and other drugs, the CAOD provides advice and assistance to the National Safety Council in its ongoing efforts to promote safety.

Currently, the CAOD is fully engaged in the NSC Prescription Drug Initiative to address prescription drug overdoses. The Centers for Disease Control and Prevention has classified prescription drug abuse as an epidemic. The 2009 CDC data showed, for the first time, more deaths were caused by drug use than were attributed to motor vehicle fatalities. The rise in deaths corresponds with medical practitioner increases in prescribing pain and anti-anxiety medications.

Given the Committee's extensive ex-

perience addressing problems created by the alcohol impaired driver, the CAOD will explore various issues affecting prescription and illicit drug use/abuse by making recommendations and policy proposals for adoption by the NSC. This October, the NSC Congress and Exposition will feature a panel presentation titled "America's Newest Drug Epidemic: Prescription Drugs." Moderated by Executive Board member, Dr. Bruce Goldberger, the panel, consisting of fellow Executive Board members, Dr. Barry Logan and Dr. Robert Forney, Jr. will explore various aspects of the epidemic highlighting the expertise the CAOD offers the NSC and the public safety community. Through the presentation, we hope to show NSC members they have a vast resource of expertise available to them to address complex societal safety issues.

Recently, police agencies sought help from the NSC in developing a policy on the use of "medical marijuana". As a part of CAOD's responsibilities to advise the NSC on issues involving alcohol and drugs, the CAOD developed a statement concerning the dangers of

marijuana use and the human performance of complex tasks. Ultimately, CAOD members pooled their collective knowledge and developed a position on the dangers of operating a vehicle while using marijuana or synthetic marijuana. The position was approved by the voting members of the committee on August 14, 2012. Publication of the position will be forthcoming in the literature and the position will be submitted to the NSC for possible adoption as a policy of the NSC.

In an effort to more effectively achieve its goal to reduce alcohol and other drug related injuries and fatalities, the CAOD leadership has elected to reach out to governmental agencies and other organizations with common interests in public safety. This effort will be ongoing and with the vast pool of expertise available in SOFT many of you may be asked to share your talents with the Committee to achieve its goal to make the nation a safer place to live and work.



SOUTHWEST ASSOCIATION OF TOXICOLOGISTS (SAT) ANNOUNCEMENT

Submitted by Byron Curtis Ph.D., D-ABFT, Chief Forensic Toxicologist, Office of the Chief Medical Examiner,

901 N Stonewall Ave. Oklahoma City, OK 73117

This fall the OSBI, OCME and FAA are cooperatively hosting the fall meeting of the Southwest Association of Toxicologists (SAT) at the Embassy Suites in Norman, Oklahoma. The theme is "Death by Design" and the dates of the meeting are October 4th - 6th. Registration (\$60) and rooms (\$77/night) are an exceptional value, and the hotel is within cab distance from the airport.

Submit your papers now while there are still prime spots on the schedule! There is also a grant available (up to a \$1,500) for toxicology students through SAT. You may have your students check into this opportunity at <http://research.sat-tox.org/>. SAT's website is <http://sat-tox.org> and meeting info may be found at <http://meetings.sat-tox.org/>. Come on down, up or over to Norman, Oklahoma!



51ST ANNUAL MEETING OF THE INTERNATIONAL ASSOCIATION OF FORENSIC TOXICOLOGISTS (TIAFT)

September 2-6th, 2013 Maderia, Portugal

Submitted by Helena Teixeira, Ph.D., President of TIAFT 2013 Meeting



51ST ANNUAL MEETING OF THE INTERNATIONAL ASSOCIATION OF FORENSIC TOXICOLOGISTS
Madeira, Portugal 2013

In 2013, from the 2nd to 6th September, the 51st Annual Meeting of the International Association of Forensic Toxicologists (TIAFT) will be held in Portugal, in the city of Funchal on the island of Madeira.

Madeira is an island paradise, with stunning scenery and a subtropical climate. For many, it is one of the most beautiful places in the world. With a wide range of activities to entertain tourists, it is a very popular holiday destination. Any stay in Madeira, and in its city of Funchal, will certainly prove to be very memorable.

The Conference will take place at the Pestana Casino Park Hotel, a beautiful building designed by the famous Brazilian architect, Oscar Niemeyer, which is located above the sea, just 5 minutes walking distance from the centre of Funchal. You can see some

images of Madeira and of Pestana Casino Park Hotel at www.tiaft2013.mj.pt.

From the scientific point of view, TIAFT 2013 will surely be an unforgettable event, involving the most renowned international specialists in the field, and all the areas of Toxicology will be open to discussion and analysis. It will offer a unique opportunity to update your knowledge concerning the most recent scientific, technological and doctrinal advances, to share ideas and experiences, and of course to make contact with academics and other professionals from all over the world. Further information about this event is available at www.tiaft2013.mj.pt, where you will be able to register. Please take note of the early bird registration dates and of the deadline for abstracts submission (when available).

If you require an official invitation letter for a visa or funding purposes, the organizing committee will be pleased to supply it, under the terms of the conditions stated by the organization.

The website will also provide useful information about hotel reservations. As regards transportation, you can fly to Madeira from Lisbon airport in Portugal (and why not take advantage and visit this beautiful city too?) or directly from various countries. Note that many low-cost airlines fly directly to Madeira, and that it is also accessible by boat.

I would be very grateful if you could publicize this information around your institution, passing it on to anyone that may be interested in taking part in the Conference.

The Forensic Science Training Institute at Cedar Crest College



CEDAR CREST COLLEGE

The Forensic Science Training Institute at Cedar Crest College will be hosting two workshops for the summer of 2013.

- Infrared Spectrometry, An Overview of General Practices and Principles with Applications to Forensic Science
- New Drugs of Abuse: Applications for Forensic, Substance Abuse and Pain Management Testing

The Forensic Science Training Institute at Cedar Crest College is designed to offer continuing education to both investigative and scientific professionals in the forensic sciences. Along with the FEPAC accredited undergraduate Forensic Science program, Cedar Crest College hopes to make a positive contribution in the training and education of current and future professionals. <http://www.cedarcrest.edu/forensic>

Society of Forensic Toxicologists, Inc.

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2012 S.O.F.T. COMMITTEE CHAIRS

Committee

Committee Chair

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ByLaws.....Yale Caplan, Ph.D., DABFT
Budget, Finance, and Audit.....Rod McCucheon, Ph.D., DABFT
Membership.....Ruth Winecker, Ph.D., DABFT
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Publications (JAT Special Issue)Madeline Montgomery, B.S., FTS
Awards.....Philip Kemp, Ph.D., DABFT
Meeting Resource.....Dan Anderson, M.S., FTS-ABFT, DABC
Drugs & Driving.....Jennifer Limoges, M.S., DABC
Policy and Procedure.....Ruth Winecker, Ph.D., DABFT
SOFT Internet Web-Site.....Bruce Goldberger, Ph.D., DABFT
Continuing Education.....Ann Marie Gordon, M.S.
Young Forensic Toxicologists.....Jayne Thatcher, Ph.D.
Drug Facilitated Sexual Assault.....Lauren Marinetti, Ph.D., DABFT
Ethics.....Robert Osiewicz, Ph.D., DABFT
Nominating.....Bradford Hepler, Ph.D., DABFT
Strategic Planning.....Peter Stout, Ph.D., DABFT
Consortium of For. Science Organizations.....Laurel Farrell, B.A.
Vendor Liaison.....Jarrad Wagner, Ph.D.

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Matthew Juhascik, Ph.D., DABFT

TOXTALK™ Deadlines for Contributions:

April 1 for June Issue

August 1 for September Issue

November 1 for December Issue

February 1 for March Issue



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

2013: Orlando, FL.....Oct. 26-Nov. 1, 2013..... Bruce Goldberger
2014: Grand Rapids, MI.....Oct. 18-25th, 2014.....Ben Kuslikis/Michael Smith
2015: Atlanta, GA.....Oct. 17-25th, 2015.....Robert Sears
2016: Dallas, TX.....Oct. 15-23rd, 2016.....Chris Heartsill/Erin Spargo
2017: Boca Raton, FL.....Sept. 10-15th, 2017..... TBD

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