



TOXTALK®

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PRESIDENT'S MESSAGE

Submitted by Bruce Goldberger, Ph.D., F-ABFT

I would like to thank the membership of the Society of Forensic Toxicologists for the opportunity to lead the Society as its President in 2017. It is a privilege to serve the members of the Society.

When I joined the Society of Forensic Toxicologists in 1983, more than 30 years ago, SOFT was comprised of several hundred members. The annual meeting was intimate, Society business was conducted in a crowded, smoky hospitality suite, and the focus of the scientific sessions was on carbon monoxide and cyanide, and drugs such as amitriptyline, cocaine, heroin, methamphetamine, phencyclidine, propoxyphene, and thioridazine. Today, we devote our time to the study of novel psychoactive substances such as AB-FUBINACA, 25I-NBOMe, α -PVP and U-47700.

In 2017, the membership of SOFT will likely exceed 1,400 members. The day-to-day business of SOFT is complex, which includes the management of a two million-dollar annual budget. The SOFT Office was recently relocated to a 4-room office suite. This coming year, I look forward to working with SOFT's Executive Director, Beth Olson, and SOFT's Administrative Assistant, CC. Beth and I meet weekly, by phone, to conduct the vital business of the Society, which includes the reconfiguration of SOFT's finances, the development of SOFT's mission and vision statement, an enhancement of SOFT's website, and the development SOFT's promotion and social media strategy.

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PRESIDENT'S MESSAGE (CONTINUED)

Beth and CC are working on this year's joint SOFT-TIAFT annual meeting, which will be SOFT's largest meeting to date. They are also in the process of updating and automating many components of SOFT's operations to allow for smoother and simpler interaction between SOFT members and the organization.

Regarding my plan for the coming year... Many of us are in laboratories challenged by the emergence of new psychoactive substances including fentanyl and its analogs that are responsible for the deaths of thousands. As a group, we need to advocate for strategies to augment our work in this area. For example, in addition to the implementation of new methods, we

must work with the DEA and our suppliers to speed-up the availability of analytical reference materials. In addition, we must work together to enhance the surveillance of the spread of these lethal compounds across the United States and the world through real-time sharing of information among professionals including toxicologists, drug chemists, medical examiners and public health epidemiologists. Meeting annually no longer suffices. Finally, we must find ways to supplement our budgets to support the purchase of new instrumentation, the development of new methods, and the training of personnel. To that end, Michelle Peace and I will be meeting with representatives from many Federal agencies engaged in the drug epidemic including the

Centers for Disease Control and Prevention, U.S. Customs and Border Protection, U.S. Department of Homeland Security, U.S. Department of Justice, Drug Enforcement Administration, National Institute of Justice, National Institute of Standards and Technology and Office of National Drug Control Policy.

Again, thank you for the opportunity to serve. I am looking forward to a productive year as President of the Society of Forensic Toxicologists.

Feel free to contact me by e-mail at bruce-goldberger@ufl.edu regarding your thoughts for the coming year.

REGISTER NOW

AUGUST 12-14, 2017
Gaylord National Resort & Conference Center
National Harbor, Maryland

**IACP 23rd Annual
Conference on
Drugs, Alcohol,
and Impaired
Driving**

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NATIONAL HARBOR
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The IACP Annual Conference on Drugs, Alcohol and Impaired Driving is the largest international training conference for drug recognition experts, law enforcement, toxicologists, prosecutors, and traffic safety practitioners to learn, connect, and develop stronger strategies to reduce drug and alcohol impaired driving.





SOFT-TIAFT 2017

WELCOME!

On behalf of the organizing committee and the officers of SOFT and TIAFT, Dan and I would like to extend an invitation for the memberships of SOFT and TIAFT to attend the fifth combined scientific meeting of our organizations to be held 9-14 September 2017 in Boca Raton, Florida USA. In this newsletter, you will find information on deadlines, registration, the conference facility and much more. We very much look forward to seeing you all there!



Planning Committee

Meeting Hosts

Dr. Ruth Winecker
Dan Anderson

Scientific Program Chairs

Dr. Robert Kronstrand
Dr. Robert Johnson

Workshop Chairs

Dr. Frank Peters
Dr. Diane Boland

Opening Ceremony Chair

Dr. Jeri Roper-Miller

Treasurer

Dr. Marc LeBeau

Exhibitor Liaison

Dr. Jarrad Wagner

Food and Beverage

Ann Marie Gordon
Denice Teem

YFT/SSEP

Andre Sukta

Volunteer Coordinators

Tate Yeatman
Joe Kahl

Website Liaison/ Mobile Application

Dr. Rusty Lewis

Silent Auction

Marissa Finkelstein
Erin Walsh

Fun Run

Nicholas Tiscione

Audio Visual

Frank Wallace

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DATES TO REMEMBER

Hotel Room Block opens:	April 1, 2017
Abstracts Deadline:	April 15, 2017
Registration Opens:	April 24, 2017
Early Bird Registration Ends:	July 1, 2017

Abstract submissions and meeting registration can be made through the SOFT Website (<http://www.soft-tox.org>)

A Big Thank You to Our Confirmed Conference Sponsors!

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Tier III Sponsorship



Tier IV Sponsorship

ARK Diagnostics, Inc.
Indigo BioAutomation

Tier V Sponsorship

SPeaware

SOFT-TIAFT 2017

The Conference Center

The Boca Raton Resort and Club is a Waldorf Astoria resort. Sitting on 356 acres the resort includes, but is not limited to:

- Two 18-hole championship golf courses designed for both novice and expert golfers.
- A Forbes 4-star Spa.
- 30 tennis courts.
- Three state-of-the-art fitness centers.
- A half-mile stretch of private beach offering a variety of water and beach activities.
- Seven swimming pools.
- A full-service marina.
- Exclusive onsite shopping.
- Nine restaurants ranging from pool-side bar and grills to fine dining.



Room Options (requests are not guaranteed):

- Cloisters- views of gardens
- Beach Club/Tower/Yacht Club-water views
- Bungalows-best for families

If all this isn't enough to occupy your free time, please check out the section titled **"Places to Go, Things to See."**

Attendees will enjoy access to all of the resort amenities (fees may apply) as part of the room rate of \$199 per night. The room block will open April 1, 2017 and when booking you can request which property you prefer. Visit [Boca Resort](#) for more information.



SOFT/TIAFT Travel Information

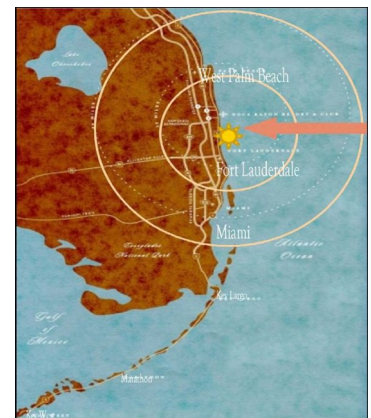
There are three airports that service the Boca Raton area, Fort Lauderdale/Hollywood (FLL), Miami (MIA) and Palm Beach (PBI).

While we encourage you to choose the best option that fits your needs, our research has indicated that Fort Lauderdale is the

best choice. Fort Lauderdale/Hollywood airport has more than 325 departure and arrival flights daily from more than 125 U.S. and International cities and is about 25 miles from the conference center.

More detailed information, including ground

transportation options, can be found on the SOFT website ([SOFT](#)) or the conference center website ([Boca Resort](#)).



SOFT-TIAFT 2017

Science, Sunshine, & Social Networking

Scientific and Social Programs

The Scientific Program will begin on Sunday, September 10, 2017 with two days of focused workshops followed by three days of oral and poster presentations. Workshop proposals are being accepted through March 15, 2017 and abstracts for oral and poster presentations are being accepted through April 15, 2017.

Interested persons may download applications materials from the SOFT website by clicking the appropriate link ([workshops](#) or [scientific sessions](#)).

Other scientific program features include exhibitor sponsored lunch and learn events and the Elmer Gordon Open Forum where practitioners gather for a hosted forum on current challenges to the field of forensic toxicology.

The social program will feature a welcoming reception on Monday evening, a "Nite Owl" reception sponsored by MilliporeSigma late night on Monday, a beach party on Tuesday evening, a dinner cruise on Wednesday evening and a Presidents banquet on Thursday night.



"Calling all volunteers!" Our volunteer coordinators are seeking members to help with the meeting. Email your interest to:

volunteers@soft-tox.org

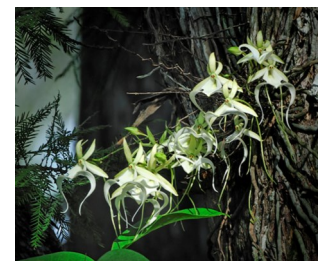
Places to Go, Things to See

There's no shortage of spectacular sites to see within a short drive of the Boca Raton Resort Club if you are so inclined. In and around Boca you will find the [Morikami Museum and Japanese Gardens](#), Boca Raton [Museum of Art](#), and for those traveling with little scientists, the Boca Raton [Children's Museum](#). [Mizner Park](#) offers upscale shopping and dining. Nearby [Parkland](#) is the home of Loxahatchee Everglades Airboat Tours, a great way to see natural Florida and the flora and fauna it has to offer.

A little further out, up to an hour's drive, your options expand greatly. Visit historic South Beach. Get back to nature, and possibly spot an alligator or two, at Lake Okechobee. West Palm Beach and Fort Lauderdale offer quite a few sight-seeing opportunities. And there's almost an unlimited supply of activities in Miami.

And for the adventurous types who would like to travel further or extend your stay, the possibilities are nearly endless. The following drive times are approximate.

- Everglades National Park – 1 ½ hours
- Kennedy Space Center – 2 ½ hours
- Orlando (Disney & Universal) – 2 ½ hours
- Daytona Beach – 3 hours
- Tampa Bay & St. Petersburg – 3 ½ hours
- Key West – 4 hours
- St. Augustine – 4 hours



Ghost Orchid at Corkscrew Swamp

2016 Annual SOFT Business Meeting Minutes

Dallas, Texas

Thursday, October 20, 2016

1. Call to Order

The 46th Annual SOFT Business Meeting was called to order at 3:41 PM by President Jennifer Limoges.

Secretary Dwain Fuller verified that a quorum was present by a count of the signatures of voting members on the sign-in sheets. The business meeting sign-in sheets reflected that 153 out of 990 total members with voting privilege were present, with 99 being required for a quorum.

2. Approval of Agenda

President Limoges proposed approval of the Agenda.

There was a motion to approve, no objections were made, and the agenda was approved.

3. Approval of Annual Business Meeting Minutes (October 2015)

President Limoges stated that the October 2015 Annual Business Meeting Minutes were published in ToxTalk® and asked for any corrections. With no corrections suggested, the meeting minutes were approved as published.

4. President's Report

President Limoges reported on the hiring of the new Executive Director, Beth Olson, and related to the membership how Ms. Olson will be managing day-to-day operations, improving financial structure and segregation of duties, and

providing business stability throughout changing leadership.

Limoges congratulated the SOFT Committees and Liaisons on the outstanding job they had done throughout the year, including the partnership with Oxford University Press and the Journal of Analytical Toxicology which has allowed SOFT membership to obtain continuing education credits through reading selected articles from the Journal.

Limoges mentioned the success of the Continuing Education Regional Workshops and the widespread participation of SOFT in all of the major groups that will be influencing the future of forensic science.

Limoges also thanked the members of the Board of Directors not only for their hard work, but for their support and comradery during the last year.

Limoges closed her remarks with by thanking the membership for the privilege of allowing her to serve as the President of SOFT.

5. Executive Director's Report

Executive Director Beth Olson introduced herself to the membership, sharing that as a career non-profit professional, the spirit of volunteerism shown by the SOFT membership strikes a chord with her. She expressed her desire to enhance the SOFT experience for members, volunteers, and the Board of Directors alike. Olson conveyed that she welcomes feedback about what SOFT is doing

successfully and any ideas for improvement. She also confirmed her commitment to helping SOFT continue to be the warm and welcoming family that it has always been. Olson thanked everyone who had already made her feel welcome in her first few months at SOFT.

6. Secretary's Report

Secretary Dwain Fuller reported that during 2016 he had visited the SOFT office and conducted a physical inventory, kept the minutes of the Board of Directors' meetings up-to-date, and with the assistance of Administrative Assistant Bonnie Fulmer had organized the Dropbox document archive.

7. Treasurer's Report

Treasurer Michelle Peace shared that SOFT is fiscally strong with \$1.2 million in assets. Peace summarized the various budget categories and balances. Her presentation included a review of various accounts and budget categories. Peace also shared that the 2016 dues increase is helping SOFT cover its expenses from membership dues rather than relying solely on meeting revenue. Additionally, SOFT underwent an external audit and no deficiencies were found that would be considered to be a material weakness.

8. Vice President's (Committee) Reports

A. Bylaws (Yale Caplan) – No report.

2016 Annual SOFT Business Meeting Minutes (CONTINUED)

B. Budget, Finance & Audit (Tom Kupiec) – Kupiec reported that he represented the committee at the SOFT Office Visit on May 31 and June 1, 2016 along with President Limoges and Secretary Fuller where a property and activities audit was conducted. The committee also participated in the Strategic Planning Committee selection process for the Executive Director. The committee also participated in several conference calls regarding the revision of the committee's Policy and Procedures Handbook.

C. Membership (Dwain Fuller) – Fuller thanked the members of the Membership Committee, Dayong Lee, Nichole Bynum and Monica Fileger, for their efforts in reviewing membership applications. Secretary Fuller reported that the total membership of SOFT as of October 7, 2016 was 1376. The membership consisted of 338 Associate Members, 10 Charter Members, 921 Full Members, 15 Retired Charter Members, 44 Retired Members, and 48 Student Members.

D. ToxTalk® (Dwain Fuller, Laura Liddicoat) – Fuller reported that the publication of ToxTalk® has functioned smoothly in the last year; the staff has become more accustomed to working together. Sherri Kacinko joined as the New Drugs editor in June. Several of the ToxTalk® issues have included paid advertising.

E. Publications (Mathew Slawson) – Secretary Fuller read Committee Chair Slawson's report that SOFT JAT CE program went live August 2016, with over 70 par-

ticipants for the first article offering. Submissions are under review for issuance of certificates.

i. Journal of Analytical Toxicology Special Issue Editor Robert Johnson reported that the special issue was very successful, with 18 full articles and 2 case reports. Johnson thanked Vice President Goldberger for his assistance as well as the reviewers and the authors for their time and contribution.

ii. Vice President Goldberger thanked Robert Johnson for serving as editor of the Special Issue of the Journal of Analytical Toxicology and presented him with a plaque on behalf of Oxford University Press and the Journal of Analytical Toxicology in recognition.

iii. Journal of Analytical Toxicology Special Issue Editor Robert Johnson announced Thomas G. Rosano as the recipient of the EDIT award.

F. Education Research Award (Erin Spargo) – Spargo recognized the recipients of the SOFT ERA and YSMA Awards which included Lorna Nisbet (ERA), Madeleine Swortwood (ERA), Meaghan Drumm (ERA), and Erin Strickland (YSMA). The recipients were presented with a plaque and a check.

G. Meeting Resource Committee (Bruce Goldberger)

i. 2016 - Dallas, TX (Chris Heartsill / Erin Spargo) – Heartsill thanked all of the chairpersons for all their help in making the meeting a success and thanked

the membership for allowing he and Erin Spargo to host.

ii. 2017 - Boca Raton, FL (Dan Anderson / Ruth Winecker) – Winecker reminded the membership that the 2017 meeting is a joint meeting with TIAFT and that it will begin on Sunday. Winecker shared the schedule including social activities. The meeting will close on Thursday evening. Attendees will have three options for lodging which can be requested, but not guaranteed.

Goldberger shared that the 2018 meeting will be in Minneapolis, MN hosted by Loralie Langman, the 2019 meeting will be in San Antonio, TX, hosted by Brad Hall and Veronica Hargrove, and 2020 will be in San Diego, CA hosted by Denice Teem.

H. Drugs and Driving (Amy Miles) – Miles reviewed the activities of the Committee, which included a workshop on opioids and DUID. The committee continues to be involved in recommending guidelines for oral fluid and roadside testing.

I. Policy and Procedures (Dwain Fuller) – Fuller reported that the Policy and Procedures Manual was updated using input from Committee Chairs and approved by the Board of Directors in the Spring of 2016.

J. IT / Website (Bruce Goldberger / Matt Juhascik) – Goldberger announced that he would be stepping down from the committee after serving for over 20 years and that Matt Juhascik will

2016 Annual SOFT Business Meeting Minutes (CONTINUED)

be taking over as Chair. Juhascik reported that the website is continually enhanced and updated and is compatible with mobile devices. The employment exchange continues to be widely utilized and the committee sends out blast emails on a frequent basis.

K. Continuing Education –

Workshops (Jayne Thatcher) – Thatcher reviewed the mission and function of the committee. The committee is currently working on a Method Development Workshop to be presented in Washington, DC and Nashville, TN in 2017. In 2016 a workshop on Courtroom Testimony was held in Houston, TX and was hosted by Ashraf Mozayani along with a 2 day workshop on Drug and Alcohol Pharmacology in Dayton, OH, hosted by Liz Kiely and Doug Rohde. Thatcher invited those interested in hosting a workshop to contact her.

L. Continuing Education –

Credits (Ann Marie Gordon) – Gordon addressed the fact that many apparently did not get the link for continuing education. Gordon advised the membership to make sure that their email will accept email from Survey Monkey. Gordon advised those continuing to have difficulties to contact her.

M. Young Forensic Toxicologists (Sarah Urfer) – Urfer discussed the YFT Symposium in which the guest speaker had to cancel due to emergency surgery. Urfer thanked Michael Wagner (Indiana) who stepped in on very short notice and gave a presentation lasting over an hour. The committee held their Student En-

richment Program and Professional Development Fair and will be awarding two Leo Dal Cortivo awards. The committee has now formed an executive committee to ensure a smooth transition of leadership within the committee. The Chair will be Andre Sukta, Vice Chair will be Courtney Wardell and the Secretary is to be determined.

N. Drug Facilitated Crimes

(Laureen Marinetti) – Marinetti shared that the committee is updating the recommended performance limits on the SOFT website and updating the DFC fact sheet. Marinetti invited the membership to send suggestions to the committee on drugs to be included and invited those interested in hosting a DFC Workshop to contact the committee.

O. Ethics (Sarah Kerrigan) – Kerrigan reported that the committee completed its investigation of complaint 20161 and presented their findings to the BOD. In April 2016, the committee received a complaint which it was able to adjudicate and complete in September 2016.

P. Nominating (Ruth Winecker) – Winecker announced the 2017 slate of nominees.

- i. President: Bruce Goldberger
- ii. Vice President: Michelle Peace
- iii. Treasurer: Sumandeep Rana
- iv. Board of Directors: Denice Teem (3 year term) and Erin Spargo (3 year term)

Q. Strategic Planning (Ted Shults) – Shults shared how pleased he was with the committee as they worked together to hire the organization's first Executive Director. Shults reiterated the importance of

marketing and expanding SOFT's influence going forward.

R. Designer Drugs (Sumandeep Rana) – Rana reported that the Committee sponsored a designer drug workshop at the annual meeting, entitled "Toxicology of Designer Benzodiazepines and Opioids". The committee is planning another workshop for the 2017 meeting.

9. Announcements / Liaison Reports

A. Vendor Liaison (Jarrad Wagner) – Wagner acknowledged the hard work of his committee and stated that he was looking forward to working with ED Olson going forward and in developing a social media presence. Wagner stated that he had good feedback from the vendors regarding how much time the membership spent with them.

B. CFSO Update (Tim Rohrig) – Rohrig briefly reviewed the recent activity of the CFSO.

C. FSSB Update (Laurel Farrell) – Farrell briefly reviewed the activities of the FSSB and noted that SOFT was well-represented on the OSAC. Farrell invited the membership to call her with any questions.

10. Announcements

A. ABFT (Bruce Goldberger) Goldberger announced that the ABFT and the ANAB had formed a strategic alliance in which the ANAB will administer the ABFT Laboratory Accreditation Program on behalf of the ABFT.

2016 Annual SOFT Business Meeting Minutes (CONTINUED)

B. IATDMCT (Loralie Langman) Langman invited the membership to attend the IATDMCT meeting in Kyoto, Japan.

C. FAA (Phillip Kemp) Kemp invited the membership to the FAA in Oklahoma City for a meeting discussing toxicological case work.

D. CAT (Sarah Kerrigan) Kerrigan announced the 50th anniversary CAT meeting as May 5-6 in San Diego and invited the membership to attend.

E. MSACL (Jennifer Colby): The membership was invited to participate in future MSACL meetings.

F. MATT: The annual meeting of MATT was announced as April 20-21, 2017 in Rosemont, IL.

11. Unfinished Business

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

12. New Business

A. President Limoges advised the membership that the BOD conducted an ethics hearing, a decision was reached and the parties would be notified in writing. Limoges reminded the membership that all ethics records are confidential.

B. Recognition of Outgoing Officers – President Limoges recognized Laura Liddicoat as outgoing Director. Vice President Goldberger recognized Sumandeep Rana as outgoing Director, Michelle Peace as outgoing Treas-

urer, himself as outgoing Vice President, and Jennifer Limoges as outgoing President. Goldberger presented Limoges with a plaque.

13. Elections

President Limoges announced the slate of nominees put forth by the nomination committee and asked if there were additional nominations from the floor. There were no nominations from the floor. A motion was made and seconded for closing of nominations and approved. Thus, the nominees were approved by acclamation. The elected officers for 2017 are:

- A. President: Bruce Goldberger
- B. Vice President: Michelle Peace
- C. Treasurer: Sumandeep Rana
- D. Board of Directors: Denice Teem (3 year term) and Erin Spargo (3 year term)

14. Incoming President's Remarks (Bruce Goldberger)

Goldberger thanked the membership for the opportunity to lead SOFT and reflected about the organization 30 years ago when it consisted of only several hundred members. He expressed his appreciation for having the opportunity to meet several charter members who are no longer with us. Goldberger stated that the membership of SOFT will likely exceed 1400 members in 2017 and that the day-to-day business is more complex and includes the management of a million dollar budget. Goldberger stated that he looks forward to working with SOFT's new Executive Director, Beth Olson and plans have already been laid to reconfigure SOFT's finances, enhance the

SOFT website, and implement as social media strategy. Goldberger recognized that laboratories are challenged with the emergence of new psychoactive compounds and fentanyl analogues that are responsible for the deaths of thousands and how we as a group need to develop strategies to augment our work in those areas. These strategies should include working with the DEA and suppliers to speed-up the availability of analytical reference materials, enhance the surveillance of the spread of these lethal compounds, real-time sharing of information among professionals, including toxicologists, drug chemists and medical examiners. Additionally Goldberger expressed that we need to find ways of supplementing our budgets to support the purchase of new instrumentation, development of new methods, and training of personnel. Goldberger pledged to do his best to address these challenges.

Goldberger announced the SOFT Special Issue Editor for 2017 will be Dayong Lee.

15. Selection of Complimentary Registration for 2017 Annual Meeting

Incoming President Goldberger selected the recipient of the complimentary registration from the entry tickets. The recipient was Al Elian.

16. Adjournment

The meeting was adjourned at 5:05 PM.

Treasurer's Report 2017

Submitted by Sumandeep Rana, SOFT Treasurer (2017-2018)

The transfer of treasurer duties from Michelle Peace to me occurred in January 2017 in Phoenix. I truly appreciate all the help and guidance provided by Michelle during this transition and her assistance in preparing the 2017 budget which was approved by the Board of Directors at a meeting held on March 2, 2017.

With the help of SOFT's Executive Director Beth Olson, SOFT is implementing a new chart of accounts, consistent with standard accounting practices, for budgeting purposes and recording financial transactions. The new chart is designed to allow more accurate allocation of revenue and expenses under the relevant accounts. The 2017 proposed budget was presented to SOFT BOD in both the old chart of accounts format and the new chart format.

The SOFT account balances, 2016 budget vs actuals and the approved 2017 budget are presented in this report. Additionally the approved 2017 budget is presented in the new chart as this will be the format adopted to record all transactions beginning January 1, 2017. The 2017 proposed budget differs for several account categories as compared to the prior year. The assessment of the 2016 budget vs actuals and the review of the approved 2017 budget require several points of explanation as provided below.



2016 Budget vs Actual Analysis and 2017 Budget Review

Operations: Income

Membership Dues: Increased budgeted revenue for 2017 is due to the increase in membership dues from \$80 to \$100 per year.

Operations: Expenses

Charitable Contributions: The American Cancer Society donation from the Fun Run proceeds for the 2016 meeting wasn't paid until 2017, so this number reflects both the 2016 (\$1,795) and 2017 (expected \$1,500) contributions.

Lease SOFT Office: With the hiring of the new Executive Director, SOFT leased a new suite of offices. The increased budget for 2017 is to accommodate the increased rent for the new office suite. 2016 actual amount is higher than 2016 budgeted total as it includes the security deposit and the first month's rent on the new suite.

Office Equipment: Actual 2016 is higher than the proposed budget because of the purchase of new office furniture and equipment. Office Equipment budget for 2017 remains same as the 2016 actual because of the pending purchases.

Office Telephone/Internet: Actual 2016 is higher than the proposed budget because new equipment and conference lines were installed in the new office suite. 2017 budgeted amount is lower than 2016 actual because new service providers were secured, reducing our rates.

Professional Fees: Accounting and Legal: 2016 included an audit and higher than normal legal fees due to the need to engage with legal services several times throughout the year. Payroll fees (\$50/month) are excluded from this account for 2017 budget as we now use QuickBooks to run payroll.

QuickBooks Online + Fees: We have transferred to QuickBooks payroll at the rate of \$90/month. Payroll cost was formerly included under Professional Fees: Accounting and Legal.

SOFT Officer/Committee Expenses: Includes a potential mid-year Executive Committee meeting, and Executive Director travel and expenses related to meetings (excluding SOFT's meeting, which is covered in the meeting budget).

Software/Website Programming: Budget increase for software subscriptions is to allow for modernization and streamlining of office operations.

Website Hosting Expenses: 2016 actual spend is higher than the budgeted amount because \$1,941 of the total \$2,666 was incurred in 2015 but recorded in 2016. No need to adjust the budget for 2017.

Professional Investment: Income

Annual Meeting Income: Higher budgeted revenue for 2017 is due to the SOFT/TIAFT joint meeting.

Treasurer's Report 2017 (CONTINUED)

ToxTalk Advertisements: The increase for 2017 budget reflects ads already committed for purchase by vendors

Professional Investment: Expense

Meeting Expenses: Higher budgeted expense for 2017 is due to the joint meeting.

Oxford University Press: The Oxford University Press invoice for 2016 was received mid-December and was paid in January 2017. Therefore, it is reflected in the 2017 budget proposal.

SOFT ConEd Committee Expenses: 2017 budgeted amount projects three regional workshops that are expected to be offered this year. Four ConEd Committee workshops were projected in the 2016 budget but only 2 were conducted.

SOFT Logo Items: 2016 actual is over budget because merchandise inventory revealed that traditionally offered items needed to be replenished in several sizes.

2017 Budget - Review of New Chart of Accounts

Below are some highlights of the differences in the new chart.

Revenue

Membership: Dues: Dues and applications fees have been combined, as application fees become a dues payment once the membership process is complete.

Annual Meeting: Revenue is broken down further than the previous chart of accounts, but not in as much detail as the meeting budget. We will continue to do the detail in the meeting budget, but this structure will be followed in our accounting system.

Expense

Payroll: Wages and Taxes: This is the standard method of reporting payroll on a chart of accounts.

Office and Administrative Expenses: Expenses are re-categorized under more accurate and descriptive sub-accounts.

Legal and Professional Services: These are now broken down by services instead all together. Additionally, IT product expenses such as software have been moved to administrative expenses. The IT category is for web-hosting and consultant services. Meeting website expense has also been moved to the IT category.

Meals and Entertainment: This covers meals for the interim BOD meeting, board visits to the SOFT office, and staff meals while traveling on SOFT business.

Annual Meeting: Expense is broken down further than previous chart of accounts, but not in as much detail as the meeting budget. We will continue to do the detail in the meeting budget, but this structure will be followed in our accounting system.

If you have any comments, questions, or suggestions on SOFT's finances, please contact me at Treasurer@soft-tox.org.

SOFT Bank Account Balances

Account Balances	Dec 31, 2015	Dec 31, 2016
Operations	\$533,617	\$594,991
Reserve	\$150,167	\$150,330
ERA	\$164,664	\$168,259
Leo DalCortivo	\$44,288	\$41,329
Meeting Checking	\$164,156	\$172,467
Meeting Merchant	\$500	\$19,793
	\$1,057,392	\$1,147,169

Treasurer's Report 2017 (CONTINUED)

OPERATIONS			
INCOME	2017 Proposal	2016 ACTUAL	2016 PROPOSAL
Application Fees	7,500	8355	5500
Late Fees (Dues)	400	220	500
Membership Dues	120,000	99410	100000
Other Operations Income	0	4	0
TOTALS	127,900	107989	106000
EXPENSES		2016 ACTUAL	2016 PROPOSAL
AAFS Midyear BOD Meeting Expenses	1,200	991	1200
Appreciation Gifts	1,500	1275	1500
Bank and Credit Card Service Fees	4,500	3712	3500
Charitable contributions	3,295	0	1000
Insurance	3,000	2588	3000
Lease SOFT Office	22,000	5957	4000
Office Equipment	9,000	8739	500
Office Telephone/Internet	3,000	4117	3000
Office/General Administrative Expenses	2,500	2286	2500
Admin Assistant Payroll Expenses	35,000	27904	45000
Postage/Shipping Expenses	500	338	800
Professional Fees: Accounting and legal	8,000	14794	12000
QuickBooks Online + Fees	1,700	641	700
SOFT Officer/Committee Expenses	18,000	10752	20000
Software/Website Programing	7,000	3340	5000
State of Delaware: Incorporation Expenses	250	100	250
Website Hosting Expenses	1,600	2666	1600
Exec Director Salary + Set-up	100,000	33890	105000
Exec Director Search (Firm + Interviews)	0	18675	30000
TOTALS	222,045	142765	240550
NET OPERATIONS	(94,145)	(34776)	(134550)
AWARDS			
INCOME		2016 ACTUAL	2016 PROPOSAL
ERA Donations	2,000	4090	2000
Interest Earned - ERA Account	250	168	250
Leo Dal Cortivo Donations	0	0	0
Interest Earned - LDC Account	50	35	50
TOTALS	2,300	4293	2300
EXPENSES		2016 ACTUAL	2016 PROPOSAL
ERA/YSMA Awards	6,000	8000	6000
Leo Dal Cortivo Awards	2,000	2000	2000
TOTALS	8,000	10000	8000
NET AWARDS	(5,700)	(5707)	(5700)

Treasurer's Report 2017 (CONTINUED)

PROFESSIONAL INVESTMENT			
INCOME		2016 ACTUAL	2016 PROPOSAL
Annual Meeting Income	1,891,442	1095895	1010000
ToxTalk Advertisements	3,000	1450	1500
SOFT Logo Sales	2,000	2823	1500
Silent Auction Proceeds	3,500	3778	2500
Interest Earned - Reserve Account	200	150	200
SOFT Con Ed Income	5,000	5185	3000
Other Prof Investment Income	0	0	0
TOTALS	1,905,142	1109281	1018700
EXPENSES		2016 ACTUAL	2016 PROPOSAL
Meeting Expenses	1,774,837	937375	975000
CFSSO Membership	10,000	10000	10000
Oxford University Press	85,000	0	40000
SWGTOX	200	0	200
SOFT Logo'd Item Expenses	1,500	2377	1500
SOFT ConEd committee expenses	15,000	8288	20000
Young Toxicologists Committee/SSEP	13,000	12595	14000
Survey Monkey	300	250	300
TOTALS	1,899,837	970885	1061000
NET PROFESSIONAL INVESTMENT	5,305	138396	(42300)
OVERALL			
NET INCOME	(94,540)	97913	(182550)

Continued on page 16



Treasurer's Report 2017 (CONTINUED)

2017 Budget – New Chart of Accounts

Account	Sub-Account		
Revenue	Membership		
		Dues	\$127,900
	Annual Meeting		
		Registration	\$1,050,522
		Exhibitors/Sponsorships	\$821,470
		Advertising	\$18,050
		Silent Auction	\$3,500
		Fun Run	\$1,400
	Merchandise Sales		
		Merchandise	\$2,000
	Advertising		
		ToxTalk	\$3,000
	Continuing Education		
		Registration Fees	\$5,000
	Contributions		
		Contributions ERA	\$2,000
		Contributions Dal Cortivo	\$0
		Contributions General	\$0
	Interest		\$500
Total Revenue			\$2,035,342

Treasurer's Report 2017 (CONTINUED)

2017 Budget – New Chart of Accounts

Expense

Payroll		
	Wages	\$124,500
	Taxes	\$10,500
Occupancy		
	Rent	\$22,000
	Telephone	\$1,950
	Internet	\$1,050
Office		
	Postage	\$500
	Office Supplies	\$9,500
Administrative Expenses		
	Computer Maintenance and Supply	\$2,000
	Software Subscriptions	\$3,600
	JAT Subscriptions	\$85,000
Membership		
	CFSO	\$10,000
Insurance		\$3,000
Appreciation Gifts		\$1,500
Legal and Professional Services		
	Accountant	\$4,000
	Audit	\$0
	Legal	\$3,000
	Payroll	\$1,000
	IT	\$10,200
	Incorporation	\$250
Meals and Entertainment		\$4,200
Awards		
	ERA/YSMA Awards	\$6,000
	Leo Dal Cortivo Award	\$2,000

Treasurer's Report 2017 (CONTINUED)

2017 Budget – New Chart of Accounts

Expense <i>(Cont'd)</i>	Annual Meeting	
	A/V Rental	\$95,000
	Committee Expenses	\$6,750
	Contract Labor	\$5,000
	Credit Card Fees	\$53,390
	Entertainment	\$44,100
	Rent or Lease	\$44,000
	Transportation	\$0
	Exhibit Hall	\$48,058
	Food and Beverage	\$1,339,035
	Fun Run	\$6,095
	Giveaways and Promo Materials	\$75,800
	General Administrative	\$9,925
	Program Book	\$26,463
	Signs and Banners	\$10,016
	Speakers	\$3,000
	Staff Travel	\$1,500
	Workshops	\$7,000
	YFT/SEP	\$13,000
	Merchandise	\$1,500
Board and Committees		
	Board of Directors	\$15,000
	Continuing Education Credits	\$1,000
	Continuing Education Workshops	\$14,000
Bank Charges	\$4,500	
Total Expense		\$2,129,882
Net Income/Loss		(\$94,540)

Summary of the 69th Annual Academy of Forensic Sciences Meeting

Submitted by Dan Anderson, AAFS Toxicology Past-Section Chair

It was a wonderful 69th Annual AAFS conference in New Orleans, LA. A tremendous thanks to our Section Program Chairs **Nikolas Lemos** and **Bill Johnson** for their tireless work and dedication as well as to the commercial partners for their continued support of the Toxicology section: Aegis Sciences Foundation, Agilent, Millipore Sigma (aka Cerilliant), Immunalysis, Waters Corporation, Lipomed, UTAK Laboratories, UCT, RTI International and NMS Labs; all deserve a round of applause and a huge Thanks! The Toxicology section hosted two workshops: "The Opioid Epidemic: Trends, Challenges, and a Path Forward" chaired by **Barry Logan** and **Donna Papsun** and "Applications of Hair Testing in Toxicology: Legal, Technical and Medical Challenges" chaired by **Karen Scott** and **Robert Kronstrand**. Both workshops were excellent and very well attended. The general scientific session started on Wednesday evening and consisted of 30 posters and 41 oral presentations, including a multidisciplinary session with Pathology/Biology, and culminated with the annual Postmortem Pediatric Toxicology session coordinated by **Robert Middleberg** and **Nikolas Lemos**. The annual Toxicology Luncheon continued its success, attracting about 120 paid attendees where **Michelle Peace** gave an inspiring presentation about mentorship and a moving tribute to **Al Poklis**. Lastly, **Robert Middleberg** was honored with life presentations from **Robert Osiewicz** and **Barry Logan**. At the Toxicology Awardees Reception, the following individuals were recognized: **John Wyman** (Rolla N. Harger Award), **Laura Liddicoat** (Ray Abernethy Award), **Dayong Lee** (Irving Sunshine Award), and **Matthew Newmeyer** and **Kayla Ellefsen** (June K. Jones Awards).

There is no rest for the weary as incoming Section Chair **Fiona Couper** and Section Secretary **Nikolas Lemos** have already begun to prepare for the 2018 meeting in Seattle, WA. This year's Section Program Chair **Bill Johnson** and Co-Chair **Sherri Kacinko** are busy preparing for another terrific program with the meeting theme of "Science Matters."

DFC Committee Announcement

The Drug Facilitated Crimes (DFC) Committee would like to encourage attendees of this year's SOFT/TIAFT meeting to submit platform presentations concerning any aspect of drug facilitated crime. If enough abstracts are submitted, the DFC Committee will put them together in a special session. Those submitting a platform presentation should use "DFC" as one of the abstract keywords.

Thank you

2017 SOFT Call for Volunteers

The 2017 SOFT-TIAFT Meeting will take place September 9th-14th in Boca Raton, FL. We need volunteers to assist with a wide variety of tasks throughout the entire meeting. Although volunteers do not receive complimentary meeting registration, YOU are essential for a successful meeting. Meet friends, both old and new while helping SOFT host the best conference yet!

The Volunteer Form is located on the SOFT website at <http://soft-tox.org/volunteers>.

Questions? Please email the volunteer Coordinators, Tate Yeatman and Joe Kahl, at volunteers@soft-tox.org



AV Volunteers Needed for Annual Meeting

SOFT is in need of two volunteers to work with Frank Wallace, our Annual Meeting AV volunteer. These volunteers will work with Frank at this year's meeting as liaisons with the AV company and hotel regarding AV needs for our variety of programs and events.

If you are interested, please contact Beth Olson at 480-839-9106.

CAT 50th Anniversary Meeting

The California Association of Toxicologists will be celebrating their 50th Anniversary on May 5th and 6th at the Paradise Point Resort in San Diego, home to our first meeting in May 1967. We have outstanding speakers scheduled to appear. Jan Ramaekers, Lionel Raymon, Marilyn Huestis, and Barry Logan will discuss all things cannabinoid. Chris Halsor will discuss his hands-on marijuana "Green Labs".

CAT will also be hosting an informal social hour Thursday evening, May 4th, in addition to our beefed up Friday Night Social with dinner and drinks at Sea World. All of this will be included with registration.

Please visit our website for agenda and registration information: www.cal-tox.org

For room reservations, click this link: [CAT 50th Anniversary- Click Here to Book Your Room Reservation](#)

See you in San Diego!

Are you Prepared for
Paul Coverdell Forensic Science
Improvement Grant Funds?



Let Horizon Help Modernize your Solvent Evaporation



IACT Annual Conference

The International Association for Chemical Testing (IACT) will hold their annual conference April 24-28, 2017. The conference site will be in Colorado Springs, Colorado, where they feature 4 days of forensic toxicology sessions and workshops. Sessions include: Prevalence of Cannabinol/Cannabidiol in Colorado drivers, 60th Anniversary of the Borkenstein Course, Drugs in Oral Fluid Study results, Uncertainty of Measurement, and the Opioid epidemic. Workshops include: Alcohol Concentration Extrapolation, Presenting Scientific Testimony Effectively, Alcohol Analysis in the Forensic Laboratory, and Managing a Forensic Science Laboratory.

For more information, and registration, please visit the IACT website at: <http://iactionline.org/Conference>.





Presents

Driving Under the Influence of Drugs Expert Testimony Workshop

(Grant funded by the California Office of Traffic Safety)

Two workshops offered:

**April 18-20, 2017 at
Orange County Crime Laboratory**

OR

**August 23-25, 2017 at
Santa Clara Crime Laboratory**



Attendance is free!

**For more information and registration, email Ariana Figueroa at
akf@occl.ocgov.com**

Office of Traffic Safety Funded:

**Driving Under the Influence of Drugs Expert
Testimony**

April 18-20, 2017

**Orange County Crime Laboratory
320 N Flower Street, Santa Ana, CA 92703**

Tuesday, April 18

- 0830 - 0845 Welcome and Intro
Ariana Figueroa, Toxicologist, Orange County Crime Laboratory
- 0845 - 1015 Introduction to Pharmacology and Toxicology Principles
Jay Vargas, Assistant Professor, California State University, Los Angeles
- 1015 - 1030 Break
- 1030 - 1130 Introduction to Pharmacology and Toxicology Principles, continued
- 1130 - 1300 Lunch (on your own)
- 1300 - 1500 Pharmacology of Drugs of Abuse
Jay Vargas
- 1500 - 1515 Break
- 1515 - 1600 Starting a DUID Program and Cultivating Relationships
Suzie Price, Assistant Head of Court, Orange County District Attorney's Office
Kristen Burke, Laboratory Director, Bureau of Forensic Services Toxicology Laboratory, California Department of Justice
- 1600 - 1630 Update on California's Blue Print for DUID
Kristen Burke

Wednesday, April 19

- 0830 - 1030 Standardized Field Sobriety Tests (SFSTs) and Drug Recognition Evaluation (DRE) Validation Studies
Eric Franke, Officer and DRE Instructor, Fullerton Police Department

Office of Traffic Safety Funded:

**Driving Under the Influence of Drugs Expert
Testimony**

August 23-25, 2017

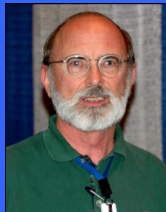
**Santa Clara Crime Laboratory
250 West Hedding Street, San Jose, CA 95110**

Wednesday, August 23

- 0830 - 0845 Welcome and Intro
Ariana Figueroa, Toxicologist, Orange County Crime Laboratory
- 0845 - 1015 Introduction to Pharmacology and Toxicology Principles
Jay Vargas, Assistant Professor, California State University, Los Angeles
- 1015 - 1030 Break
- 1030 - 1130 Introduction to Pharmacology and Toxicology Principles, continued
- 1130 - 1300 Lunch (on your own)
- 1300 - 1500 Pharmacology of Drugs of Abuse
Jay Vargas
- 1500 - 1515 Break
- 1515 - 1615 Starting a DUID Program and Cultivating Relationships
Jennifer Harmon, Assistant Director, Orange County Crime Laboratory
- 1615 - 1700 Update on California's Blue Print for DUID
Kristen Burke- Laboratory Director- Bureau of Forensic Services Toxicology Laboratory, California Department of Justice

Thursday, August 24

- 0830 - 1030 Standardized Field Sobriety Tests (SFSTs) and Drug Recognition Evaluation (DRE) Validation Studies
Eric Franke, Officer and DRE Instructor, Fullerton Police Department
- 1030 - 1045 Break



CASE NOTES

Send interesting “*Case Notes*” to Section Editor

Matthew Barnhill, Ph.D., F-ABFT

mbarnhilljr@gmail.com

Recent MDMA Overdoses in Tampa, Florida

Submitted by Dina Swanson, Julia Pearson, Ph.D., Kelly Devers, M.D., and Laura Hair, M.D.
Hillsborough County Medical Examiner Department

Introduction

3,4-Methylenedioxymethamphetamine (MDMA, ecstasy, Molly) is a methylenedioxy ring substituted amphetamine first developed in 1914 for use as an appetite suppressant. MDMA is abused for its euphoric properties that include increased intensity of feelings, happiness, changes in perception of colors and sound, increased energy and empathy. Because of these properties, MDMA is commonly used at “raves” or dance parties such as electronic dance music (EDM) festivals. MDMA also acts as a central nervous system stimulant which can cause hyperthermia and sweating due to serotonin syndrome, increased heart rate and blood pressure. In addition, hyponatremia can be a clinical presentation of MDMA intoxication due to excessive water intake which can lead to seizures, cerebral edema, and death. The Hillsborough County Medical Examiner Department toxicology laboratory in Tampa, FL analyzes approximately 1200 cases per year. MDMA is not a drug commonly seen in overdose cases in Hillsborough County nor the state of Florida. In the previous year (2014), the county had no cases of MDMA involved overdose but in the last two years, four recent MDMA overdose cases are presented here, each of which demonstrate variations of the

above symptoms and differing mechanisms of death.

Case Histories

Case 1 – Nov. 2015

A 40-year-old white male was out with friends at a nightclub when he began to have seizure-like activity and collapsed. The patient was witnessed to strike his head upon falling and to have clenched fists and stiff arms. Bystander cardiopulmonary resuscitation (CPR) was performed by off duty nurses. He was found pulseless 3 minutes later by police and arrived at the emergency room (ER) in asystole. At the hospital upon intubation, pulse was 149 and respiratory rate was 22 both of which quickly dropped to 38 and 13 respectively within 10 minutes. After 20 minutes of CPR, 10 doses of epinephrine, ventilation and electrical cardioversion with multiple shocks, he was pronounced dead. A friend of the patient admitted that he was “doing Mollies” at his table. The patient had a history of hypertension, coronary artery disease, coronary artery bypass with cardiac stents and anabolic steroid use. The hospital admission blood samples were submitted to the toxicology laboratory for analysis for drugs and alcohol and found to contain 0.03 g/dL ethanol and 1.0 mg/L MDMA. The samples were not analyzed for ana-

bolic steroids. No autopsy was performed due to religious objections of the family. The cause of death was ruled atherosclerotic and hypertensive cardiovascular disease with contributory causes of death including intoxication by MDMA and anabolic steroid abuse. The manner of death was accident.

Case 2 – May 2016

A 22-year-old white male was attending a music festival in Tampa, FL. He was reported to be having seizure-like activity on the ground and emergency medical services (EMS) was called. The patient was found unresponsive and underwent a traumatic intubation in the field. While being transported to the hospital, he had a cardiopulmonary arrest but his pulse was restored. Upon arrival in the hospital, the subject had a temperature of 108.2° F which later rose to 110.1° F. The subject was diaphoretic, tachycardic and hypotensive with rigid lower extremities and clonus. Aggressive cooling measures were started along with a midazolam drip. He was also given vasopressors due to hypotension. The patient underwent cardiac arrest three more times before being pronounced dead approximately 8 hours post admission. The hospital blood samples taken approximately 4 hours after

Recent MDMA Overdoses in Tampa, Florida (CONTINUED)

admission were submitted to the toxicology laboratory for analysis for drugs and alcohol and found to contain 1.2 mg/L MDMA and 0.08 mg/L MDA. No other drugs of significance were identified. The cause of death was ruled intoxication by MDMA and the manner of death was accident.

Case 3 – May 2016

A 21-year-old white female was attending the same music festival as the subject in case number 2. She was known to have taken ecstasy with friends who noted the subject to exhibit odd behavior and have seizure-like activity. EMS was called and found the subject to be alert but disoriented. She was given lorazepam by EMS and taken to the hospital. Upon admission to the ER, she had a seizure, became unresponsive and underwent emergency intubation. Her temperature upon admission was noted to be 98°F. Her initial sodium level was 119 mmol/L. She was treated for dehydration with a 3% normal saline drip and underwent a computerized tomography (CT) scan showing severe brain edema. Subsequent sodium levels were 115, 113, and 118 mmol/L. The subject was declared brain dead 12 hours after admis-

sion and was terminally extubated approximately 24 hours after admission. The hospital blood samples taken about 2.5 hours after admission were submitted to the toxicology laboratory for analysis for drugs and alcohol and found to contain 0.79 mg/L MDMA and less than 0.05 mg/L MDA. No other drugs of significance were identified. The cause of death was ruled intoxication by MDMA and the manner of death was accident.

Case 4 – July 2016

A 24-year-old white female attended a nightclub with a friend where she consumed 1 drink and 1 shot. She also had been drinking prior to the nightclub but did not appear intoxicated according to the friend. The subject complained of nausea after leaving the nightclub at 0230 and they returned to the friend's apartment. The subject is a Type 1 diabetic and gave herself an insulin shot at approximately 0400. She drank a Gatorade and ate a cookie before lying down. The friend woke up about 3 hours later to find her unresponsive and not breathing with clenched fists. 911 was called and bystander CPR was initiated. Her pulse was never regained and she was pronounced dead upon arrival to the ER at 0749. She had

prescriptions for insulin medications as well as antibiotics. Vitreous humor chemistries were performed on this case due to her history of diabetes. Her postmortem vitreous glucose measured at 98 mg/dL which is within normal limits. Postmortem peripheral blood was tested for drugs and alcohol and found to contain 0.04 g/100g ethanol, 3.4 mg/L MDMA and less than 0.05 mg/L MDA. The cause of death was ruled intoxication by MDMA and the manner of death was accident.

Results

Table 1 illustrates the results of the drug and alcohol screens for the 4 cases. Routine screening consists of volatiles by headspace gas chromatography, drugs of abuse by immunoassay (acetaminophen, barbiturates, benzodiazepines, cannabinoids, carisoprodol/meprobamate, benzoylecgonine, fentanyl, methadone, methamphetamine/MDMA, opiates, oxycodone, and salicylates) and all alkaline extractable drugs by gas chromatography mass spectrometry (GCMS). Confirmation and quantification of MDMA was performed by GCMS.

Table 1

Case	Age	Sex	Admission Time	Sample Time	MDMA Conc.	MDA Conc.	Other Drugs
1	40	M	11/29/2015 - 0248	11/29/2015 - 0600	1.0 mg/L	ND	0.03 g/dL Ethanol
2	22	M	05/28/2016 - 2353	05/29/2016 - 0354	1.2 mg/L	0.08 mg/L	None
3	21	F	05/29/2016 - 0000	05/29/2016 - 0237	0.79 mg/L	< 0.05 mg/L	None
4	24	F	N/A	Postmortem - peripheral	3.45 mg/L	< 0.05 mg/L	0.04 g/dL Ethanol

Recent MDMA Overdoses in Tampa, Florida (CONTINUED)

Table 2

			Temp	Pulse	Blood Pressure	Respiratory Rate	pH	Sodium (mmol/L)	Potassium (mmol/L)	Troponin (ng/mL)	Comments
Case	Age	Sex	Normal 98.6	Normal 60-100	Normal 90-120/ 60-80	Normal 12-20	Normal 7.41	Normal 135-145	Normal 3.5-5.0	Normal <0.01	
1	40	M	N/A	149	N/A	22	N/A	N/A	N/A	N/A	Seizure-like activity, hx heart problem
2	22	M	108.2	163	98/34	41	7.32	137	6.9	7.680	Seizure-like activity
3	21	F	98	75	140/102	25	7.27	119	3.6	0.064	Seizure-like activity
4	24	F	N/A	N/A	N/A	N/A	N/A	144	23.8	N/A	Type 1 Diabetic, DOA at hospital

Table 2 illustrates the physiological symptoms and chemistries for each case as available. Results outside of the normal range are in bold. Cases 1 and 4 were dead upon arrival to the emergency room therefore no vitals were taken.

Discussion

These cases are unusual for the Hillsborough County Medical Examiner Department in that MDMA is not a common drug in the area. The rise in cases over the past year may indicate that MDMA is becoming more widely available in the area or more potent. The results of these 4 cases demonstrate the differences in mechanism of death for MDMA overdoses. The mechanism in cases 1 and 2 was likely cardiac arrest while case 3 was due electrolyte imbalances from increased water intake. In the first case, the patient had an extensive history of heart problems and underwent what appeared to be a fairly rapid (less than 1 hour) cardiac death. The second case had no history of heart problems, but he underwent

multiple cardiac arrests and had an extremely elevated body temperature. His death occurred approximately 8 hours after the incident. In case 3, the subject had extreme cerebral edema likely caused by hyponatremia due to excessive water intake. Ingesting excessive amounts of water has been shown to cause seizures and cerebral edema due to electrolyte imbalance. Case 4 had markedly high levels of potassium which may have been exacerbated by diabetes and antibiotics. In all the witnessed cases, seizure like activity was observed. In addition to the two deaths occurring at the music festival, an additional 57 concertgoers were treated at local hospitals. MDMA concentrations in these 4 cases are consistent with previously published literature results which range from 0.1 mg/L – 7.3 mg/L.

References

1. Baselt, RC Disposition of Toxic Drugs and Chemicals in Man. 8th Edition. Foster City, CA: Biomedical Publications, 2008.
2. Elliott, Simon P. *MDMA and MDA Concentrations in Ante-*

mortem and Postmortem Specimens in Fatalities Following Hospital Admission. Journal of Analytical Toxicology. Vol 29: 296-300, 2005.

3. Pilgrim, J.L., Gerostamoulos, D., and Drummer, Olaf H. *Deaths Involving MDMA and the Concomitant Use of Pharmaceutical Drugs*. Journal of Analytical Toxicology. Vol 35: 219-226, 2011.
4. Milroy, CM, Clark, JC, and Forrest, ARW. *Pathology of deaths associated with "ecstasy" and "eve" misuse*. Journal of Clinical Pathology. Vol 49: 149-153, 1996.
5. Kurokawa, Y., Ishizaki, E., and Inaba, K. *Cerebral swelling in severe hyponatremia caused by water intoxication in a schizophrenic patient*. Computerized Medical Imaging and Graphics Extra: Cases. Vol 28: 40-45, 2004.



Postmortem Case Involving Deschloroketamine

Submitted by Brittany Thomas

Washington State Patrol Toxicology Laboratory, Seattle, WA

Ketamine (2-(2-chlorophenyl)-2-methylamino-cyclohexanone) is a NMDA-receptor antagonist used as an anesthetic in both human and veterinary medicine. The term dissociative anesthetic was first used to describe the state of disconnect between ketamine users and their environment ⁽¹⁾. During the early 2000s, ketamine emerged as a popular rave drug in the UK. More recently, new ketamine analogs have entered the novel psychoactive substances (NPS) market ^(2, 3). Among these, deschloroketamine was first identified in seized powders in 2016⁽²⁾.

The following is the first death reported in Washington State after exposure to deschloroketamine. To the best of our knowledge, no

other literature exists on this subject. In 2016, the Washington State Toxicology laboratory received a postmortem sample for a 26-year-old male who had reportedly been found deceased after attending a rave. No other anatomical cause of death was reported.

The following were the results of the toxicological analysis of the blood sample.

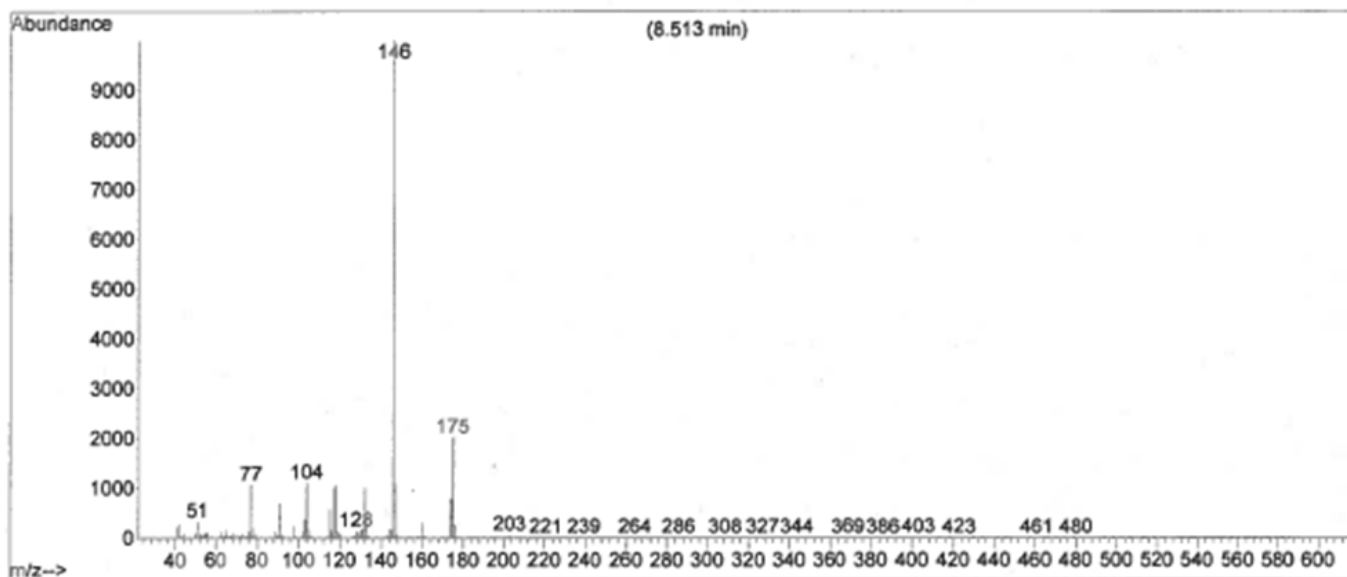
- Ethanol by headspace GC: negative

- EMIT Screen (cocaine metabolite, opiates, benzodiazepines, barbiturates, cannabinoids, and amphetamines): presumptive positive for cannabinoids (not subsequently confirmed – it is not standard prac-

tice within our laboratory to confirm cannabinoids in all postmortem cases).

-Liquid-liquid alkaline extraction and full scan GC/MS screen: unknown significant peak at RT=8.5 min (RRT=0.74 with metycaine as ISTD) with the following m/z fragments: 146 (base peak), 175, 104, 77. A library match for deschloroketamine was found using the SWGDRG mass spectral library version 3.1, issued July 14, 2016. A similar match was found using the Cayman spectral library version 10312016 issued October 31, 2016. A standard was purchased from Cayman Chemical and the presence of deschloroketamine was confirmed using full scan GC/MS.

Quality : 96
ID : Deschloroketamine



References

1. Domino EF. Taming the Ketamine Tiger. *Anesthesiology* (2010) 113: 678-686.
2. Frison G, Zamengo L, Zancanaro F, and Traldi P. Characterization of the designer drug deschloroketamine (2-methylamino-2-phenylcyclohexanone) by gas chromatography/mass spectrometry, liquid chromatography/high-resolution mass spectrometry, multistage mass spectrometry, and nuclear magnetic resonance. *Rapid Commun. Mass Spectrom* (2016) 30: 150-160.
3. Morris H and Wallach J. From PCP to MXE: a comprehensive review of the non-medical use of dissociative drugs. *Drug Test. Analysis* (2014) 6: 614-632



FROM THE TOXICOLOGY LITERATURE

Submitted by Kevin G. Shanks, M.S., D-ABFT-FT

kshanks@aitlabs.com

AIT Laboratories, Indianapolis, IN

Journal of Analytical Toxicology November 2016

Analysis of Novel Synthetic Opioids U-47700, U-50488 and Furanyl Fentanyl by LC-MS/MS in Postmortem Casework

Mohr *et al.* reported an analytical method for the determination of three novel opioid research chemicals, U-47700, U-50488, and furanylfentanyl, in blood specimens by LC-MS/MS. Nineteen postmortem cases were also presented in which either U-47700 or furanylfentanyl were identified in blood. U-47700 concentrations ranged 17–490 ng/mL with a mean concentration 253 ng/mL. Furanylfentanyl concentrations ranged 2.5–76 ng/mL with a mean concentration 26 ng/mL. The authors concluded that in cases where circumstances are consistent with opioid use and routine toxicology is negative (i.e. negative for morphine/6-acetylmorphine or fentanyl), it may be prudent to test for these opioid research chemicals.

Journal of Analytical Toxicology November 2016

An Acute Ocfentanil Fatality: A Case Report with Postmortem Concentrations

Dussy *et al.* reported the case of a 24-year-old man, who was a known drug user, was found deceased in his apartment. A plastic bag containing a brown powder was found in proximity to the body. The powder was suspected to be heroin, but was later identified as ocfentanil, acetaminophen, caffeine, and mannitol. Acute conges-

tion of the lungs and brain were observed at autopsy. Toxicological analysis of the peripheral blood revealed ocfentanil (9.1 µg/L), citalopram (130 µg/L), quetiapine (<10 µg/L), THC (2.8 µg/L), and THC-COOH (<5 µg/L). Ocfentanil was identified in cardiac blood at a concentration equal to 27.9 µg/L. Cause of death was certified as acute ocfentanil intoxication.

Clinical Toxicology

November 2016

A Pediatric Fatality Due to Accidental Hydromorphone Ingestion

Cantrell *et al.* reported the case of a 3-year-old male who was found unresponsive on a couch while napping. He had no medical history other than asthma and had no recent illnesses. Upon scene investigation, it was documented that two 2-mg hydromorphone tablets were missing from the mother's possession. Pulmonary congestion and edema were observed at autopsy. Central blood screened positive for opiates by ELISA. Upon GC/MS opiates confirmation, hydromorphone was detected in peripheral blood (0.03 mg/L) and central blood (0.06 mg/L). Cause of death was acute hydromorphone intoxication. Manner of death was accident.

Clinical Toxicology

November 2016

Rapid Respiratory Arrest after Ingestion of Poison Hemlock Mistaken for Wild Celery

Chen *et al.* reported in a letter to the editor the case of a husband and wife who both ingested “wild

celery” after cooking some plant leaves and stems with tomato, eggs, and rice. One hour after eating the food, they both presented to the hospital with nausea, dizziness, blurred vision, and weakness in the limbs. After IV fluids and oral charcoal, the man's symptoms cleared. The female developed respiratory arrest and became unresponsive – she was intubated and had to be mechanically ventilated. She recovered after two days of care and was discharged on the fourth day. The man's blood sample drawn at hospital admission was analyzed by liquid chromatography time of flight mass spectrometry (LC/ToF). Both coniine and γ-coniceine (constituents of the plant *Conium maculatum* otherwise known as poison hemlock) were detected. No admission blood from the female was available for testing. The authors concluded that poison hemlock is easily misidentified as regular edible wild vegetables and while poisoning is uncommonly reported, it is important to be aware.

Journal of Forensic Sciences

December 2016

Fatal Intoxication with α-PVP, a Synthetic Cathinone Derivative

Potocka-Banas *et al.* reported the case of a 28-year-old male who had consumed a “crystal” substance was admitted to the hospital after cardiac arrest. Testing during hospital admission revealed metabolic acidosis and oxygen saturation was 33.8%. Mechanical ventilation was applied. Laboratory tests showed some abnormalities

FROM THE TOXICOLOGY LITERATURE (CONTINUED)

including elevated white blood cells and creatinine. After five hours and several arrhythmias, he was declared dead. Upon autopsy, pulmonary and cerebral congestion and edema were observed. Also observed was congestion in the liver, alveolar erythrorrhagia, and chronic hemostasis. Toxicological analysis of blood drawn from the carotid artery revealed alpha-PVP (174 ng/mL). Cause of death was assumed to be intoxication with alpha-PVP and subsequent cardiac arrest.

Forensic Science International December 2016 Mitragynine Concentrations in Two Fatalities

Domingo *et al.* reported two cases where mitragynine was detected in postmortem blood. The first case was of a 22-year-old male who was found deceased in bed after consuming an herbal mixture product. The male was a drug addict and was in treatment for psychosis and anxiety. According to family reports, the male mixed some herbal substance with water and drank it along with consuming an unknown tablet. After consuming the substance, the male fell out of a window and then went to bed. Upon autopsy, mild pulmonary edema was observed. Toxicological analysis of femoral blood revealed mitragynine (790 µg/L), etizolam (280 µg/L), pregabalin (3 mg/L), pipamperon (7.4 µg/L), lorazepam (6.9 µg/L), triazolam (1.1 µg/L), fluoxetine (89 µg/L), quetiapine (18 µg/L), olanzapine (5.8 µg/L), and 2-methylmethcathinone (approximately 5.2 µg/L). The authors concluded that mitragynine in combination with etizolam likely

caused the male to fall unconscious leading to aspiration of chyme.

The second case was of a 20-year-old autistic male. A syringe was found in his hand and various puncture wounds were observed on the arm. Drug paraphernalia, including brown powder labeled Kratom, were found on the scene. The autopsy was negative with exception of signs of decomposition. Toxicological analysis of the femoral blood revealed mitragynine (10 µg/L), amphetamine (34 µg/L), MDA (40 µg/L), methamphetamine (3,300 µg/L), MDMA (1,400 µg/L), pseudoephedrine (8 µg/L), morphine (210 µg/L), 6-acetylmorphine (41 µg/L), codeine (24 µg/L), acetaminophen (1.9 mg/L), and GHB (480 mg/L). Cause of death was determined to be mixed drug intoxication (heroin, methamphetamine, MDMA, and GHB). Mitragynine was concluded to be, at most, a contributing factor to death.

New England Journal of Medicine December 2016 “Zombie” Outbreak Caused by the Synthetic Cannabinoid AMB-FUBINACA in New York

Adams *et al.* reported the results of the toxicological investigation of a mass outbreak of illnesses in New York in July 2016 suspected to be related to synthetic cannabinoid use. On July 12, 2016, authorities and emergency personnel were called to one neighborhood in NYC where it was discovered 33 people were intoxicated after using an herbal incense product. Observed behavior was described as “zombie-like”. Eighteen of the affected (all male individuals, mean age – 36.8 years) were transported to local

hospitals. Clinical features/symptoms were a blank stare, slow responses, slow and mechanical movements of extremities, diaphoresis, and lethargy. Toxicological analysis of serum samples drawn at hospital admission by LC/QToF revealed metabolites of the synthetic cannabinoid AMB-FUBINACA. Analysis of several samples of the product named AK-47 24 Karat Gold identified AMB-FUBINACA.

Forensic Science International January 2017 Identification of MDMB- FUBINACA in Commercially Available E-Liquid Formulations Sold for Use in Electronic Cigarettes

Peace *et al.* reported the presence of the synthetic cannabinoid MDMB-FUBINACA in three e-cigarette vaping liquids on the internet market. The e-liquids were analyzed by time of flight mass spectrometry (DART-MS) and gas chromatography mass spectrometry (GC/MS), headspace gas chromatography with flame ionization detection (GC-FID), and solid phase micro-extraction gas chromatography mass spectrometry (SPME-GC/MS). In each of the three liquids, MDMB-FUBINACA was detected as the sole synthetic cannabinoid. Other compounds detected included ethylisovalerate, ethyl 3-hydroxybutanoate, linalool, amyl isobutyrate, folione, raspberry ketone, 5-hydroxymethyl furfural, ethyl phenyl acetate, ethylmaltol, ethanol, propylene glycol, and glycerin.

**Society of Forensic Toxicologists,
Inc.**

**1 N. Macdonald St., #204
Mesa, AZ 85201 USA**

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

**Executive Director: Beth Olson
Executive Assistant: CC Watson**

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Matthew Juhascik, Ph.D., F-ABFT
juhascmp@gmail.com

TOXTALK® Deadlines for Contributions:

February 1 for March Issue

May 1 for June Issue

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November 1 for December Issue

Future SOFT Meeting Destinations:

2017: Boca Raton, FL.....Sept. 10-15, 2017.....Ruth Winecker/Dan Anderson
2018: Minneapolis, MN.....Oct. 7-12, 2018.....Loralie Langman
2019: San Antonio, TX.....Oct.13-18, 2019.....Veronica Hargrove/Brad Hall
2020: San Diego, CA.....Sept. 20-25, 2020.....Denice Teem

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